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FOREWORD

We would like to introduce the Cambodia Demographic and Health Survey 2005 that is the second survey of this type conducted successfully in Cambodia. This survey is sponsored by USAID, ADB using a grant from DFID, UNFPA, UNICEF, and CDC/GAP. Technical assistance was provided by ORC Macro. The National Institute of Public Health (NIPH), Directorate General for Health, Ministry of Health, and the National Institute of Statistics (NIS) of the Ministry of Planning, were the project implementation agencies.

This main report includes information on demography, family planning, maternal mortality, infant and child mortality, domestic violence, women's status and health related information such as breastfeeding, antenatal care, children's immunization, childhood diseases, and HIV/AIDS. The questionnaires (household, man and woman questionnaires) are designed to evaluate the nutritional status of mothers and children and to measure the prevalence of HIV and anemia.

The 2005 CDHS findings are expected to be used by policymakers and program managers to evaluate the Cambodian demographic and health status in order to formulate appropriate population and health policies and programs in Cambodia. The programs of reproductive health and child health and health facilities need to be expanded and improved.

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The 2005 Cambodia Demographic and health Survey (CDHS 2005) represents the continuing commitment and efforts in Cambodia to obtain data on population and health. The survey also reflects the interest in obtaining information on maternal health, child health and anemia and HIV prevalence. The CDHS 2005 was sponsored by USAID, ADB using a grant from DFID, UNFPA, UNICEF, and CDC/GAP and it was implemented by the National Institute of Public Health (NIPH), Ministry of Health and the National Institute of Statistics (NIS) of the Ministry of Planning. This survey could not have been implemented without the active support and the efforts of many institutions and individuals. The active support and guidance of Excellencies Secretaries of State, HE. Prof. Eng Huot, Ministry of Health and HE. Ouk Chay, Ministry of Planning, are acknowledged with deep gratitude. We also gratefully acknowledge the representatives of USAID, DFID, UNFPA, UNICEF, and CDC/GAP and their staff for their support and valuable comments throughout the survey activities.

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Excellency San Sy Than
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National Institute of Public Health

SUMMARY OF FINDINGS

The 2005 Cambodia Demographic and Health Survey (CDHS) is a nationally representative sample of 16,823 women and 6,731 men age 15-49. The 2005 CDHS is the second comprehensive survey conducted in Cambodia as part of the worldwide Demographic and Health Surveys (DHS) projects. The primary purpose of the CDHS is to provide the policymakers and planners with updated and reliable data on fertility, family planning, infant, child and maternal mortality, maternal and child health, nutrition, malaria, knowledge of HIV/AIDS, prevalence of HIV, women's status and domestic violence. The 2005 CDHS is the first survey in Cambodia to provide population-based prevalence estimates for HIV.

FERTILITY

Survey results indicate that there has been a decline in the total fertility rate, from 4.0 births per woman in 2000 to 3.4 births per woman in 2005. Fertility continues to be lower in urban areas (2.8 births per woman) than rural areas (3.5 births per woman). There is a substantial differential in fertility by region ranging from a low of 2.5 births per woman in Phnom Penh to a high of 5.2 births per woman in Mondol Kiri/Rattanak Kiri. Both education and wealth have an effect on fertility. Women with secondary or higher education have 1.7 children less than women with no education and women living in the lowest wealth quintile have twice as many children as those living in the highest wealth quintile.

Women (age 25-49) begin having children at a median age of 22.0. Women living in urban areas have their first birth about one year later than women living in rural areas. Age at first birth is lowest in Mondol Kiri/Rattanak Kiri (20.7 years) and highest in Kampong Chhnang (23.3 years). Women with secondary and higher education begin childbearing at a slightly higher age than those with less education. Teenage childbearing is quite rare in Cambodia—only 8 percent of young women age 15-19 have begun childbearing.

Marriage and sexual initiation patterns are important determinants of fertility levels. Sixty percent of women interviewed are currently married. Women get married at a median age of 20.1. The median age at first marriage has been stable for the past 20 years. Women generally begin having sexual intercourse at about the same time as their first marriage, at the median age of 20.4. Women in urban areas wait about one year longer to get married and initiate sexual activity than those living in rural areas. Women with higher levels of education also tend to marry and initiate sex later than those with lower levels of education. Men marry at a median age of 22.1 and initiate sex slightly before marriage, at a median age of 21.5.

The interval between births is relatively long in Cambodia. The median number of months since the preceding birth is 36.8. Eighteen percent of nonfirst births occur within 24 months of a previous birth, while 30 percent occur 24 to 35 months after a previous birth. Thirty-one percent occur 36 to 59 months after a previous birth and 21 percent occur more than 60 months after a previous birth.

More than half (56 percent) of currently married Cambodian women do not want any more children. Another 23 percent would like to wait at least two years before their next child. On average, Cambodian women would like 3.3 children.

About 8 percent of women have ever had an induced abortion. Among those who have had an induced abortion, 44 percent have had more than one. Four percent of women have had an abortion in the past five years. These abortions most frequently took place at a private health facility or at someone's home. In almost 80 percent of cases, a doctor, nurse, midwife or other health worker assisted with the abortion.

FAMILY PLANNING

Almost all women are familiar with at least some methods of contraception. The daily contraceptive pill, the male condom, and

injectables are known by over 90 percent of married women. About half of women know at least one traditional method of family planning.

Almost two-thirds of currently married women have ever used a contraceptive method in their lifetime. Forty percent of married women are currently using a contraceptive method; 27 percent are using a modern method and 13 percent are using a traditional method. Use of contraception has increased substantially since 2000 when only 19 percent of married women were using a modern method. This is due primarily to the increase in use of the pill (from 5 percent to 11 percent).

Use of modern methods of contraception is higher in urban areas than rural areas (31 percent compared with 27 percent). Almost one-third of women with secondary or higher education use a modern method compared with 22 percent of those with no schooling. Use of modern methods is highest in Otdar Mean Chey (35 percent) and lowest in Mondol Kiri/Rattanak Kirk (19 percent).

Women access their contraception from a variety of sources. Pill and male condom users obtain their method from the public sector (primarily health centers) and other non-medical sources, such as shops and community distributors. Eighty-four percent of injectable users rely on the public sector (health centers) and the private medical sector.

Just over half of currently married women say that they intend to use family planning in the future. The daily pill and injectables are the two methods most favored for future use.

One-quarter of currently married women have an unmet need for family planning. That is, they do not want any more children or want to wait at least two years before their next birth but are not using a method of contraception. The unmet need for limiting (16 percent) is higher than the unmet need for spacing (9 percent). Unmet need is especially high among women in the lowest wealth quintile and women with no education. Currently 40 percent of the total need for family planning is being met.

CHILD HEALTH

The 2005 CDHS data show a remarkable decline in childhood mortality. Currently there are 66 infant deaths for every 1,000 live births and 83 under-five deaths for every 1,000 live births. In 2000, infant mortality was 95 and under-five mortality was 124. This represents a decrease of over 30 percent. Still, one in every 12 Cambodian children dies before reaching age 5. Four-fifths of these deaths occur in the first year of life.

Childhood mortality varies throughout Cambodia. It is much higher in rural areas (under-five mortality of 111) than in urban areas (under-five mortality of 76). Under-five mortality ranges from a high of 165 in Mondol Kiri/Rattanak Kiri to a low of 52 in Phnom Penh. Wealth and education are strongly linked with childhood death. Children whose mothers are in the lowest wealth quintile have a three times greater risk of death than those whose mothers are in the highest wealth quintile. Under-five mortality is also much higher for those whose mothers have received no schooling (136) than those whose mothers have attended secondary or higher levels of school (53).

Survival of infants and children is also strongly influenced by the sex of the child, mother's age at birth, birth order, and birth interval. Male children are more likely to die than female children. Childhood mortality is also highest among children whose mothers are over 40 years of age at birth. Childhood mortality increases with birth order- that is, first, second, and third children are at less risk of death than fourth, fifth, sixth or seventh children. Finally, children who are born less than 2 years after a sibling are at a much increased risk of infant and childhood death than those born 2 or more years after a sibling.

Two-thirds of children age 12-23 months have received all the basic recommended vaccinations (BCG, three doses of DPT and polio, and measles). In 2000, only 40 percent of children had received all of these vaccinations. Over 90 percent have received BCG, DPT 1, and polio 1, while fewer receive the second and third doses of DPT or polio and only 77 percent received the measles vaccine. Seven percent of children have received no vaccinations at all.

Vaccination coverage increases with household wealth and mother's education. Vaccination coverage is highest in Battambang/Krong Pailin (82 percent) and lowest in lowest in Mondol Kirk/Rattanak Kiri (35 percent).

Diagnosis and treatment of childhood diseases are essential to reducing mortality. Among children who had symptoms of acute respiratory infection in the 2 weeks before the survey, 48 percent were taken to a health facility or provider. Forty-three percent of children with fever received this same treatment. Only 37 percent of children with diarrhea were taken to a health provider. Thirty-six percent of children with diarrhea were treated with either oral rehydration therapy or recommended home fluids. Only 38 percent of children with diarrhea were given more fluids than usual during illness.

The 2005 CDHS collected information on ownership and use of mosquito nets. The data show that while almost all (96 percent) of households own a mosquito net, only 5 percent own an insecticide-treated net. The large majority (88 percent) of children under five slept under a mosquito net the night before the survey. Nine percent slept under an ever-treated net and 4 percent slept under an insecticide-treated net.

Thirty-five percent of children under five had a fever in the two weeks before the survey. Fever is a major manifestation of malaria, and children with fever should be treated for malaria. However, less than 1 percent of children with fever received an antimalarial drug.

Maternal Health

Antenatal care from a health professional has almost doubled since 2000. Sixty-nine percent of women who had a live birth in the five years preceding the survey received antenatal care compared with only 38 percent in 2000. Antenatal care coverage is more common in urban areas (79 percent) than in rural areas (68 percent). Ninety percent of women with secondary and higher education receive antenatal care compared with only 50 percent of those with no education. Antenatal care coverage is highest in Svay Rieng (92 percent) and lowest in Mondol Kiri/Rattanak Kiri (28 percent). Forty-three percent of women have four or more antenatal care visits. Among those who received antenatal care, only about one-third started antenatal care in the first three months of pregnancy.

Only 60 percent of those who received antenatal care reported that they were informed of the signs of pregnancy complications.

Just over two-thirds of women with a birth in the five years before the survey were protected from neonatal tetanus, either because they received two tetanus toxoid injections or because they had received injections during earlier pregnancies.

Only 22 percent of births in the five years before the survey took place in a health facility—78 percent took place at home. Still, this marks a great improvement since 2000 when only 10 percent of births occurred in a health facility. Health-facility births are far more common in urban areas (50 percent) than rural areas (17 percent) and among women with secondary or higher education and those in the highest wealth quintile. Forty-four percent of births were assisted by a trained health professional (doctor, nurse or midwife). This also represents a large improvement, as only about one-third of births received trained assistance in 2000. Seventy percent of births in urban areas receive assistance from a trained health provider, compared with only 39 percent in rural areas. Trained assistance at delivery is most common in Phnom Penh (86 percent of births) and least common in Preah Vihear/Steung Treng (13 percent).

The 2005 CDHS reports a maternal mortality rate of 472 deaths per 100,000 live births. This is comparable to the figure reported in 2000.

Breastfeeding and Nutrition

Almost all Cambodian children are breastfed. About one-third begin breastfeeding within an hour of birth, while two-thirds begin breastfeeding within a day of birth. Children are breastfed for an average of 21.6 months, but they are exclusively breastfed for only 4.1 months. Sixty percent of infants under six months are exclusively breastfed as recommended by WHO.

The CDHS includes biomarker testing for anemia as well as information on micronutrient intake. More than 60 percent of children age 6-59 months have some degree of anemia. The

anemia is moderate or severe in 33 percent of cases. The majority of children age 6-35 months had consumed foods rich in vitamin A and iron in the day before the survey. Thirty-five percent of children age 6-59 months had received vitamin A supplements in the 6 months before the survey. Only 2 percent had received iron supplements in the week before the survey. Almost three-quarters of households had adequately iodized salt.

The nutritional status of children has improved in the past 5 years. Currently 37 percent of children are stunted and 7 percent are wasted, compared with 45 and 15 percent in 2000. Stunting is most common in Pursat (62 percent) and least common in Phnom Penh (22 percent). In general, children with uneducated mothers and those living in the poorest households are most likely to be malnourished.

Women also suffer from nutritional deficiencies. Forty-seven percent of women have some degree of anemia. While most women consume foods rich in vitamin A, only 27 percent received a vitamin A dose post-partum. Only 18 percent took iron tablets or syrup for 90 or more days during pregnancy, as recommended.

Twenty percent of Cambodian women age 15-49 are considered thin, while 10 percent are overweight or obese. Underweight has remained stable over the last 5 years, while overweight has increased by 66 percent since 2000.

HIV/AIDS

Almost all Cambodians have heard of AIDS. More than 80 percent of women and men age 15-49 know the three major methods of preventing HIV transmission: using a condom, having only one faithful, uninfected partner, and abstaining. Misconceptions about HIV/AIDS are still fairly common. Only sixty-nine percent of women and 60 percent of men know that a healthy-looking person can have the AIDS virus and only about two-thirds know that AIDS cannot be transmitted by mosquito bites. Almost nine in ten women know that HIV can be transmitted to an infant through breastfeeding, but only 33 percent know that this risk can be minimized if the mother takes special drugs during pregnancy.

Certain behaviors put individuals at higher risk for contracting HIV. Less than 1 percent of women reported having higher-risk sex in the year before the survey, compared with 14 percent of men. Eighty-three percent of these men did report wearing a condom at last higher-risk sex. Six percent of men reported paying for sex in the year before the survey. Almost all of these men reported using a condom.

HIV testing is relatively uncommon in Cambodia. About half of men and women know where to get an HIV test, but only 10 percent of women and 14 percent of men have ever taken an HIV test and received the results.

Results from the 2005 CDHS indicate that 0.6 percent of Cambodian adults age 15-49 are infected with HIV. Prevalence is the same for women and men. HIV prevalence is three times higher in urban areas than in rural areas. HIV prevalence is three times higher among those living in the wealthiest households than those living in the poorest households. Men and women who are divorced, separated, or widowed have much higher infection rates than those who are currently married or have never been married. Men and women with 10 or more lifetime sexual partners are significantly more likely to have HIV than those with fewer partners. Interestingly, 40 percent of women and 44 percent of men who were HIV positive had been tested previously for HIV, while only 9 percent of HIV-negative women and 11 percent of HIV-negative men had ever taken an HIV test before.

Results show a higher infection rate among women who received antenatal care in a public health facility (0.8 percent) than those who did not receive any ANC in the past 3 years (0.5 percent). This helps to explain the difference seen between the national sentinel surveillance rate and the DHS population-based HIV rate.

The CDHS also examined children who are not living with both of their biological parents. Results show that 21 percent of children under age 18 are not living with both parents; however, in only 9 percent of cases have one or both of the parents died. Data indicate that orphans (those with one or both parents dead) are not significantly more lacking in basic needs (shoes, clothes, blankets) than non-orphans. Three-fourths of adult caregivers of children report that

they have made succession plans in case they should fall ill or die.

Women's Status and Domestic Violence

The 2005 CDHS includes modules on women's status and domestic violence. According to the data, 18 percent of women met their husbands for the first time on their wedding day. An additional 40 percent knew their husbands for less than one year before their wedding. In more than half of cases, the woman had no say in who she married. Most women have some decision-making power on issues such as visits to family and friends, daily household purchases and their own health care. Fewer than half have any say in decisions on whether or not she will work or whether to use contraception.

Many Cambodians have gender-biased attitudes. For example, only 53 percent of women disagree with the statement "important decisions should be made by men." Fifty-five percent of women agree that a husband has the right to beat his wife under certain circumstances. However, most women also agree that a wife has the right to refuse to have sex with her husband if she knows that he has a sexually transmitted infection or that he is having sex with other women.

While few women have sole ownership over land, their homes, or other valuables, most women share ownership of these items with someone else. However, only 24 percent can sell that asset without permission. About two-thirds of women control the money for at least one household item and one personal item.

Twenty-two percent of ever-married women ever experienced violence since age 15. Ten percent of women have experienced violence in the year before the survey. In 44 percent of cases, the husband has been the sole perpetrator of the violence. Marital violence is not uncommon. Fourteen percent of ever-married women report that they have ever experienced physical or sexual violence by their husband. Nineteen percent report emotional violence. Six percent of women report that marital violence has resulted in bruises and aches; 1 percent reported that they have had an injury or broken bone as a consequence of marital violence. Marital violence is especially high among women whose husbands get drunk very often. It is also highest among husbands who exhibit a high degree of control over their wives.

Among all women who reported ever experiencing physical or sexual violence, 31 percent have ever sought help. In half of these cases, women seek help from their families.

Use of Health Services for Accident or Injury

Two percent of household members were injured or killed in an accident in the year before the survey. Forty-six percent of injuries and deaths are attributed to road accidents. Sixteen percent of household members reported an illness or injury in the month before the survey. Among them, 92 percent sought a first treatment, 27 percent sought a second treatment and 10 percent sought a third treatment. The mean cost of these treatments ranged from US $11.17 for the first treatment to US $ 7.82 for the third treatment.

CAMBODIA

N
Thailand
Laos
Otdar Mean Chey
Banteay Mean Chey
Siem Reap
Preah Vihear
Steung Treng
Rattanak Kiri
Krong Pailin
Battambang
Kampong Thom
Kratie
Mondol Kiri
Pursat
Kampong Chhnang
Kampong Cham
Vietnam
Kampong Speu
Prey Veng
Kaoh Kong
Phnom Penh
Kandal
Svay Rieng
Takeo
Kampot
Krong Preah Sihanouk
Krong Kep
0 25 50 100 Kilometers

INTRODUCTION 1

1.1 GEODEMOGRAPHY, HISTORY, AND ECONOMY

Geodemography

Cambodia is an agricultural country located in Southeast Asia. It is bounded by Thailand to the west, Laos and Thailand to the north, the gulf of Thailand to the southwest, and Vietnam to the east. It has a total land area of 181,035 square kilometers.

Cambodia has a tropical climate with two distinct monsoon seasons, which set the rhythm of rural life. From November to February, the cool, dry northeastern monsoon brings little rain, whereas the southwestern monsoon carries strong winds, high humidity, and heavy rains. The mean annual temperature for Phnom Penh, the capital city, is 27°C.

The 1962 census was the last official census to be conducted prior to 1998; it revealed a population of 5.7 million. The population census in 1998 recorded the number of the people in the country at 11,437,656 with an annual growth rate of 2.5 percent (National Institute of Statistics, 1999). The 2004 Inter-Censal Population Survey showed that the annual growth rate declined from 2.5 percent in 1998 to 1.81 percent in 2004, with the total population of 13.09 million (National Institute of Statistics, 2004). A large proportion of the population, 85 percent, live in rural areas, and only 15 percent live in urban areas. The population density in the country as a whole is 74 per square kilometer. More than a million inhabitants (1.044 millions) are living in Phnom Penh. The average size of the Cambodian household is 5.1. The total male to female sex ratio is 93.5. The literacy rate among adults age 15 and over is 73.6 percent. The male adult literacy rate (84.7 percent) is considerably higher than the rate of females (64.1 percent). Currently, it is estimated that approximately 34.7 percent of the total population lives below the poverty line.

History

Cambodia gained complete independence from France under the leadership of Prince Norodom Sihanouk on 9 November 1953. In March 1970, a military coup led by General Lon Nol overthrew Prince Sihanouk.

On 17 April 1975, the Khmer Rouge ousted the Lon Nol regime and took control of the country. Under the new regime, the country was renamed Democratic Kampuchea. Nearly three million Cambodian people died during the Khmer Rouge's radical and genocidal regime.

On 7 January 1979, the revolutionary army of the National Front for Solidarity and Liberation of Cambodia defeated the Khmer Rouge regime and proclaimed the country the People's Republic of Kampuchea and later in 1989 as the State of Cambodia.

The most important political event was the free elections held in May 1993 under the close supervision of the United Nations Transitional Authority in Cambodia (UNTAC). Since then, Cambodia was proclaimed the Kingdom of Cambodia and has a system of constitutional monarchy. Another two free and fair elections took place in 1998 and 2003. Now, Cambodia is stable and well on its way to democracy and a promising future.

Economy

Since the 1991 Paris Peace Accord, Cambodia's economy has made significant progress after more than two decades of political unrest. However, Cambodia still remains the poorest and least developed country in Asia, with the gross domestic product per capita estimated at approximately 1,400,000 Riel or $339 in 2005 (US$1= 4,128 Riel) (Ministry of Health, 2006). Agriculture, mainly rice production, is still the main economic activity for Cambodia. In addition, small-scale subsistence agriculture, such as fisheries, forestry, and livestock, are still the most important sector. In addition, garments factories and tourism services are also important components of foreign direct investment.

1.2 Health Status And Policy

Health outcomes have been improved recently. The infant mortality rate has decreased from 95 per 1,000 live births in 2000 to 66 in 2005 and the under-five mortality rate from 124 to 83 in the same period. Life expectancy at birth is 58 for male and 64 for female (Ministry of Planning, 2006). The government expenditure on health per capita is $4.09 (Ministry of Health, 2006). Despite progress made, the health status of the Cambodian people is still among the lowest in the region.

To improve the health status of the Cambodian people, the Ministry of Health developed the Health Sector Strategic Plan for 2003-2007 (Ministry of Health, 2002). Its policy statement follows:

- Implement sector-wide management through a common vision and effective partnerships among all stakeholders;
- Provision of basic health services to the people of Cambodia with the full involvement of the community;
- Provision of affordable, essential specialized hospital services;
- Decentralization and de-concentration of financial, planning and administrative functions within the health sector;
- Priority emphasis on prevention and control of communicable and selected chronic and non-communicable diseases, on injury, the elderly, adolescents and vulnerable groups such as the poor, and on managing public health crises;
- Priority emphasis on provision of good quality care to mother and child especially essential obstetric and pediatric care;
- Active promotion of healthy lifestyles and health-seeking behavior among the population;
- Emphasis on quality, effective and efficient provision of health services by all health providers;
- Optimization of human resources through appropriate planning, management including deployment and capacity development within the health system;
- Increase promotion of effective public and private partnerships for effective and efficient basic and specialist care;
- Effective use of the health information for evidence-based planning, implementation, monitoring and evaluation in the health sector;
- Implementation of health financing systems to promote equitable access to priority services especially by the poor; and
- Further development of appropriate health legislation to protect the health of providers and consumers.

1.3 OBJECTIVE AND SURVEY ORGANIZATION

The 2005 Cambodia Demographic and Health Survey (CDHS) is the second nationally representative survey conducted in Cambodia on population and health issues. It uses the same methodology as its predecessor, the 2000 Cambodia Demographic and Health Survey, allowing policymakers to use the two surveys to assess trends over time.

The primary objective of the CDHS is to provide the Ministry of Health, Ministry of Planning (MOP), and other relevant institutions and users with updated and reliable data on infant and child mortality, fertility preferences, family planning behavior, maternal mortality, utilization of maternal and child health services, health expenditures, women's status, domestic violence, and knowledge and behavior regarding HIV/AIDS and other sexually transmitted infections. This information contributes to policy decisions, planning, monitoring, and program evaluation for the development of Cambodia, at both national- and local-government levels.

The long-term objectives of the survey are to technically strengthen the capacity of the National Institute of Public Health (NIPH), Ministry of Health, and the National Institute of Statistics (NIS) of MOP for planning, conducting, and analyzing the results of further surveys.

The 2005 DHS survey was conducted by the National Institute of Public Health (NIPH), the Ministry of Health, and the National Institute of Statistics of the Ministry of Planning. The CDHS executive committee and technical committee were established to oversee all technical aspects of implementation. They consisted of representatives from the Ministry of Health, the National Institute of Public Health, Department of Planning and Health Information, the Ministry of Planning, the National Institute of Statistics, the U.S. Agency for International Development (USAID), Department for International Development (DFID), the United Nations Population Fund (UNFPA), and the United Nations Children's Fund (UNICEF). Funding for the survey came from USAID, the Asian Development Bank (ADB) (under the Health Sector Support Project HSSP, using a grant from the United Kingdom, DFID), UNFPA, UNICEF, and the Centers for Disease Control/Global AIDS Program (CDC/GAP). Technical assistance was provided by ORC Macro.

1.4 SAMPLE DESIGN

Creation of the 2005 CDHS sample was based on the objective of collecting a nationally representative sample of completed interviews with women and men between the ages of 15 and 49. To achieve a balance between the ability to provide estimates for all 24 provinces in the country and limiting the sample size, 19 sampling domains were defined, 14 of which correspond to individual provinces and 5 of which correspond to grouped provinces.

- Fourteen individual provinces: Banteay Mean Chey, Kampong Cham, Kampong Chhnang, Kampong Speu, Kampong Thom, Kandal, Kratie, Phnom Penh, Prey Veng, Pursat, Siem Reap, Svay Rieng, Takeo, and Otdar Mean Chey;
- Five groups of provinces: Battambang and Krong Pailin, Kampot and Krong Kep, Krong Preah Sihanouk and Kaoh Kong, Preah Vihear and Steung Treng, Mondol Kiri, and Rattanak Kiri.

The sample of households was allocated to the sampling domains in such a way that estimates of indicators can be produced with known precision for each of the 19 sampling domains, for all of Cambodia combined, and separately for urban and rural areas of the country.

The sampling frame used for 2005 CDHS is the complete list of all villages enumerated in the 1998 Cambodia General Population Census (GPC) plus 166 villages which were not enumerated during the 1998 GPC, provided by the National Institute of Statistics (NIS). It includes the entire country and consists of 13,505 villages. The GPC also created maps that delimited the boundaries of

every village. Of the total villages, 1,312 villages are designated as urban and 12,193 villages are designated as rural, with an average household size of 161 households per village.

The survey is based on a stratified sample selected in two stages. Stratification was achieved by separating every reporting domain into urban and rural areas. Thus the 19 domains were stratified into a total of 38 sampling strata. Samples were selected independently in every stratum, by a two stage selection. Implicit stratifications were achieved at each of the lower geographical or administrative levels by sorting the sampling frame according to the geographical/administrative order and by using a probability proportional to size selection at the first stage of selection.

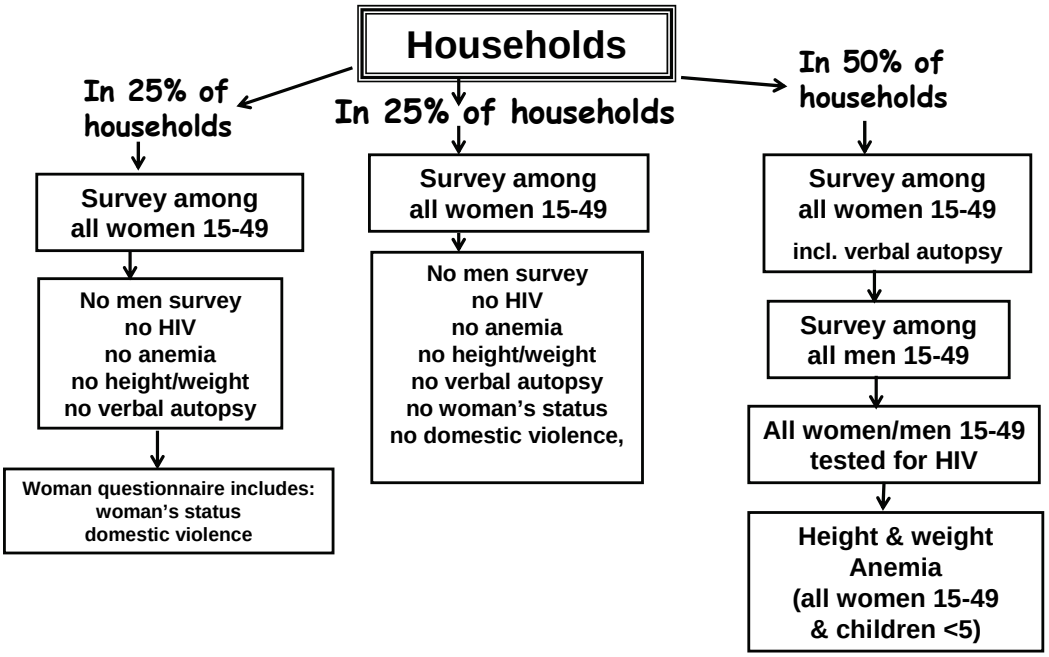
In the first stage, 557 villages were selected with probability proportional to village size. Village size is the number of households residing in the village. Some of the largest villages were further divided into enumeration areas (EA). Thus, the 557 CDHS clusters are either a village or an EA. A listing of all the households was carried out in each of the 557 selected villages during the months of February-April 2005. Listing teams also drew fresh maps delineating village boundaries and identifying all households. These maps and lists were used by field teams during data collection. The household listings provided the frame from which the selection of household was drawn in the second stage. To ensure a sample size large enough to calculate reliable estimates for all the desired study domains, it was necessary to control the total number of households drawn. This was done by selecting 24 households in every urban EA, and 28 households in every rural EA. The resulting over-sampling of small areas and urban areas is corrected by applying sampling weights to the data, which ensures the validity of the sample for all 38 strata (urban/rural, and 19 domains). Appendix A provides a complete description of the sample design and weighting procedures.

All women age 15-49 years who were either usual residents of the selected households or visitors present in the household on the night before the survey were eligible to be interviewed. In addition, in a subsample of every second household selected for the survey, all men age 15-49 were eligible to be interviewed (if they were either usual residents of the selected households or visitors present in the household on the night before the survey). The minimum sample size is larger for women than men because complex indicators (such as total fertility and infant and child mortality rates) require larger sample sizes to achieve sampling errors of reasonable size, and these data come from interviews with women.

In the 50 percent subsample, all men and women eligible for the individual interview were also eligible for HIV testing. In addition, in this subsample of households all women eligible for interview and all children under the age of five were eligible for anemia testing. These same women and children were also eligible for height and weight measurement to determine their nutritional status. Women in this same subsample were also eligible to be interviewed with the cause of death module, applicable to women with a child born since January 2002.

The 50 percent subsample not eligible for the man interview was further divided into half, resulting in one-quarter subsamples. In one-quarter subsample all women age 15-49 were eligible for the woman's status module in addition to the main interview. In this same one-quarter subsample, one woman per household was eligible for the domestic violence module. In the other one-quarter subsample, women were not eligible for the woman's status module, nor the domestic violence module. Figure 1.1 provides a diagram of the implementation of the survey modules.

Figure 1.1 Implementation of Survey Instruments and Modules
2005 CDHS



1.5 QUESTIONNAIRES

Three questionnaires were used: the Household Questionnaire, Woman Questionnaire, and Man Questionnaire. The content of these questionnaires was based on model questionnaires developed by the MEASURE DHS project. Technical meetings between experts and representatives of the Cambodian government and national and international organizations were held to discuss the content of the questionnaires. Inputs generated by these meetings were used to modify the model questionnaires to reflect the needs of users and relevant population, family planning, and health issues in Cambodia. Final questionnaires were translated from English to Khmer and a great deal of refinement to the translation was accomplished during the pretest of the questionnaires.

The Household Questionnaire served multiple purposes:

- It was used to list all of the usual members and visitors in the selected households and was the vehicle for identifying women and men who were eligible for the individual interview.
- It collected basic information on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household.
- It collected information on characteristics of the household's dwelling unit, ownership of various durable goods, ownership and use of mosquito nets, and testing of salt for iodine content.
- It collected anthropometric (height and weight) measurements and hemoglobin levels.
- It was used to register people eligible for collection of samples for later HIV testing.
- It had a module on recent illness or death.

- It had a module on utilization of health services.

The Women's Questionnaire covered a wide variety of topics divided into 13 sections:

- Respondent Background
- Reproduction, including an abortion module
- Family Planning
- Pregnancy Postnatal Care and Children's Nutrition
- Immunization Health and Women's Nutrition
- Cause of Death of Children (also known as Verbal Autopsy)
- Marriage and Sexual Activity
- Fertility Preferences
- Husband's Background and Woman's Work
- HIV AIDS and Other Sexually Transmitted Infections
- Adult and Maternal Mortality
- Women's Status
- Household Relations (also known as Domestic Violence)

The Men's Questionnaire was administered to all men age 15-49 years living in every second household of the 2005 CDHS sample. The Man Questionnaire collected information similar to that of the Woman Questionnaire but was shorter as it did not contain as detailed a reproductive history, or questions on maternal and child health, or nutrition.

The CDHS underwent a full pretest in May 2005. Twenty four women and 23 men were trained in the administration of the CDHS survey instruments and blood collection techniques. Training and fieldwork included the Household Questionnaire, (not including anthropometry or testing of salt for iodine), the full 13 sections of the Woman Questionnaire, and the full Man Questionnaire. The training course was followed by five days of interviewing and blood collection, and a full day of interviewer debriefing. Constructive inputs of interviewers were used to refine survey instruments and logistics. Questionnaires were finalized as a result of pretest activities.

1.6 Training and Fieldwork

The goal of training was to create 19 field teams capable of collecting data for the CDHS 2005. Each team was responsible for data collection in one of the 19 survey domains (comprised of the 24 provinces). Field teams were each composed of 6 people: team leader, field editor, three female interviewers, and one male interviewer. After three weeks of training on questionnaires, data entry staff had acquired the necessary knowledge of the survey instruments and were released from training. The 122 field personnel continued on for three more weeks of training: one week for blood training, one week on miscellaneous topics, and one week of field practice.

The first week of training was devoted to the Household Questionnaire. The next two weeks were devoted to 13 Sections of the Woman Questionnaire. Additional time was spent reviewing the Household Questionnaire, including the selection of women for the Household Relations Module, Consent Statements for blood collection, and conversion of ages and dates of birth between the Khmer and Gregorian calendar.

One week was devoted to additional activities: the Man Questionnaire, measuring height and weight of women and children, sample implementation and household selection (logistically complicated and required two days of training), collection of Geographic Positioning System data, testing of household salt for iodine, organization of documents and materials for return to the head office.

One week of main survey training was devoted to the collection of blood samples. All interviewers were designated to collect blood samples in the field, thus all interviewers were trained for blood collection procedures. While field editors and supervisors were not designated to collect blood samples in the field, they also underwent blood collection training so that all team members were fully aware of all responsibilities related to the collection of blood samples. Complete understanding of all survey activities by all team members contributed greatly to the maintenance of high data quality standards over a long period of data collection.

Training in the collection of blood samples included procedures for: identifying the correct household eligible for HIV testing in the 50 percent subsample; identifying men and women within those households eligible for HIV testing; obtaining voluntary consent of respondents; safety procedures in handling blood samples; techniques in capillary blood draw; use of the HemoCue machine for field testing of hemoglobin levels to assess levels of anemia; capturing blood samples for anemia testing; capturing blood samples for laboratory testing of HIV; providing referral for respondents needing treatment for anemia; providing vouchers for VCT services; providing HIV information pamphlets; rendering the blood sample for HIV anonymous; proper storage of dried blood spots in the field; packaging of dried blood spots for transport to the laboratory; disposal of bio-hazardous waste; and recording information in the questionnaires.

The five weeks of training were followed by a full week of field practice. Two supplementary days prior to launching fieldwork were required to cover fieldwork control forms, and supply teams with all necessary equipment. Each interviewer needs over 50 distinct items to perform a complete interview. Fieldwork was then launched, and teams disbursed to their assigned provinces.

During the training period, the 19 CDHS team leaders were provided with the cluster information for the provinces in which they would be working in order to devise a data collection sequence for their sample points. They were best equipped to perform this task as team leaders hailed from their own provinces. They also conducted the CDHS Household Listing operation (described in sample design) and therefore were well-acquainted with the areas in which they would have to work. The progression of fieldwork by geographic location had to take into account weather conditions during rainy season.

A fieldwork supervision plan was created for the six CDHS survey coordinators from NIS and NIPH and ORC Macro to conduct regular field supervision visits. Supervision visits were conducted throughout the six months of data collection and included the retrieval of questionnaires and blood samples from the field. In addition, a quality control program was run by the data processing team to detect key data collections errors for each team. Based on these data checks, regular feedback was given to each team based on their specific performance.

Data collection was conducted from 9 September 2005 to 7 March 2006.

1.7 DATA PROCESSING

Data entry on 19 personal computers began on 22 September 2005, just two weeks after the first interviews were being conducted. Data entry personnel attended questionnaire training of interviewers so as to become familiar with the survey instruments. Data processing personnel included a data processing chief, four assistants, 19 entry operators, and three office editors. Completed questionnaires were brought in from the field by survey coordinators and questionnaires and anonymous blood samples were logged by the office editors. Once proper accounting of

questionnaires and blood samples was accomplished on a per-cluster basis, blood samples were transported to the NIPH laboratory for later testing. Questionnaire data were entered at NIS using CSPro, a program developed jointly by the United States Census Bureau, the ORC Macro MEASURE DHS program, and Serpro S.A. All questionnaires were entered twice to minimize data entry error. Data entry was completed in April 2006. Internal consistency verification and secondary editing were completed in May 2005.

1.8 SAMPLE COVERAGE

All of the 557 clusters selected for the sample were surveyed in the 2005 CDHS. A total of 15,046 households were selected, of which 14,534 were identified and occupied at the time of the survey. Among these households, 14,243 completed the Household Questionnaire, yielding a response rate of 98 percent (Table 1.1).

In the 14,243 households surveyed, 17,256 women age 15-49 years were identified as being eligible for the individual interview. Interviews were completed with 16,823 of these women, yielding a response rate of 98 percent. Interviews with men were conducted in every second household. A total of 7,229 men age 15-49 years were identified in the subsample of households. Of these 7,229 men, 6,731 completed the individual interview, yielding a response rate of 93 percent.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, Cambodia 2005

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	3,288	11,758	15,046
Households occupied	3,175	11,359	14,534
Households interviewed	3,101	11,142	14,243
Household response rate	97.7	98.1	98.0
Interviews with women			
Number of eligible women	4,278	12,978	17,256
Number of eligible women interviewed	4,152	12,671	16,823
Eligible woman response rate	97.1	97.6	97.5
Interviews with men			
Number of eligible men	1,728	5,501	7,229
Number of eligible men interviewed	1,586	5,145	6,731
Eligible man response rate	91.8	93.5	93.1

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS 2

This chapter provides a summary of the socioeconomic characteristics of households and respondents surveyed, including age, sex, place of residence, educational status, household facilities, and household characteristics. The profile of the households provided in this chapter will help in understanding the results of the 2005 CDHS in the following chapters. In addition, it may provide useful input for social and economic development planning.

Throughout this report, numbers in the tables reflect weighted numbers. Due to the way the sample was designed, the number of weighted cases in some regions appears small, since they are weighted to make the regional distribution nationally representative. However, roughly the same number of households and women and men were interviewed in each province or group of provinces, and the number of unweighted cases is always large enough to calculate the presented estimates. Estimates based on an insufficient number of cases are shown in parentheses or not shown at all.

The 2005 CDHS survey collected information from all usual residents of a selected household (*de jure* population) and persons who had stayed in the selected household the night before the interview (*de facto* population). Although the difference between these two populations is small, to avoid double counting all tables in this report refer to the *de facto* population unless otherwise specified. The CDHS survey used the same definition of households as the 1998 census conducted by the National Institute of Statistics. A household was defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating meals.

2.1 CHARACTERISTICS OF THE HOUSEHOLD POPULATION

Age and Sex Composition

Age and sex are important demographic variables and are the primary basis of demographic classification in vital statistics, censuses, and surveys. They are also important variables in the study of mortality, fertility, and nuptiality. The effect of variations in sex composition from one population group to another should be taken into account in comparative studies of mortality. In general, a cross-classification with sex is useful for the effective analysis of all forms of data obtained in surveys.

The survey collected information on age in completed years for each household member. When the age was not known, interviewers inquired further for dates of birth in the Gregorian calendar, the Khmer calendar, and a historical calendar. The age was then calculated using conversion charts specifically designed for this purpose.

Table 2.1 presents the percent distribution of the household population by age, according to urban-rural residence and sex. The population spending the night before the survey in the households selected for the survey included 66,894 individuals, of which 47 percent were males and 53 percent were females.

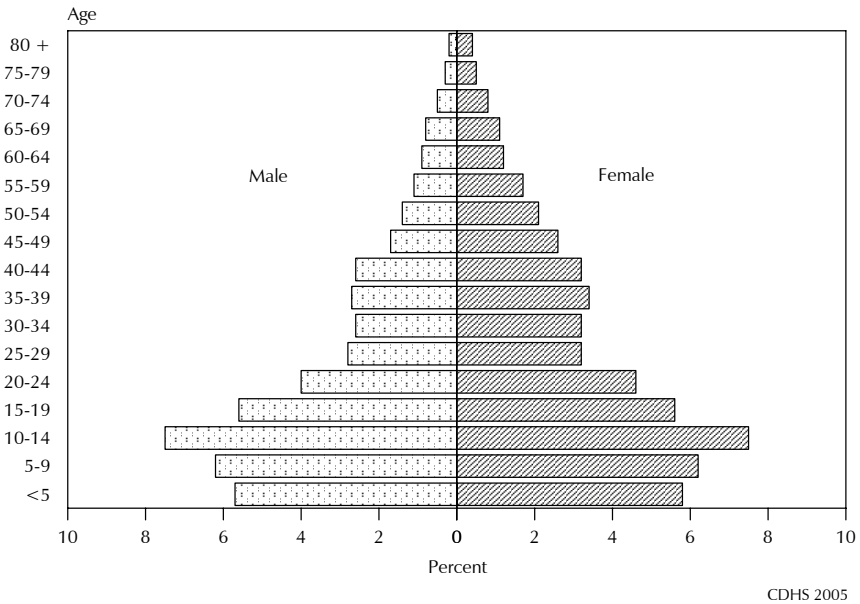
The age structure of the household population is typical of a society with a youthful population and recently declining fertility. The sex and age distribution of the population is also shown in the population pyramid in Figure 2.1. Cambodia has a broad-based pyramid structure due to half the population being under 20 years of age.

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Cambodia 2005

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	11.1	9.3	10.1	12.4	11.2	11.7	12.2	10.9	11.5
5-9	11.6	9.0	10.2	13.6	12.2	12.9	13.3	11.7	12.4
10-14	14.3	12.4	13.3	16.4	14.4	15.3	16.0	14.1	15.0
15-19	11.9	13.3	12.6	12.0	10.0	10.9	12.0	10.5	11.2
20-24	10.9	11.0	10.9	8.2	8.3	8.3	8.6	8.7	8.7
25-29	7.1	7.2	7.1	5.8	5.8	5.8	6.0	6.0	6.0
30-34	5.4	6.2	5.8	5.5	6.0	5.8	5.5	6.0	5.8
35-39	6.5	6.5	6.5	5.7	6.3	6.0	5.8	6.3	6.1
40-44	6.1	5.8	6.0	5.4	6.1	5.8	5.5	6.1	5.8
45-49	4.2	5.2	4.7	3.6	4.8	4.2	3.7	4.9	4.3
50-54	3.3	3.7	3.5	3.0	4.1	3.6	3.0	4.0	3.6
55-59	2.4	3.3	2.9	2.4	3.2	2.8	2.4	3.2	2.8
60-64	2.0	2.2	2.1	2.0	2.3	2.2	2.0	2.3	2.2
65-69	1.5	1.7	1.6	1.6	2.0	1.8	1.6	2.0	1.8
70-74	1.0	1.5	1.3	1.1	1.5	1.3	1.1	1.5	1.3
75-79	0.4	0.8	0.6	0.7	1.0	0.9	0.7	1.0	0.8
80 +	0.4	0.8	0.6	0.5	0.8	0.7	0.5	0.8	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,824	5,524	10,348	26,523	30,023	56,546	31,347	35,547	66,894

Figure 2.1 Population Pyramid



Above the age of 10 years, the pyramid follows a usual pattern of decreasing numbers as age increases. However, those age 25 to 34 are fewer than would be expected as these are the two age groups born in the decade of the 1970s. The early 1970s saw escalating civil war and in the late 70s the Khmer Rouge ruled. This period of time was characterized by few births and high infant and child mortality.

Cambodia has a large dependent population of children and adolescents, although with declining fertility the proportion of the population under age 15 years has recently declined. Table 2.2 shows that children under 15 years of age account for 39 percent of the population. Fifty-seven percent of the population is in the age group 15-64, and nearly 5 percent are over 65 years of age.

Table 2.2 Population by age according to selected sources

Percent distribution of the de facto population by age group, according to selected sources, Cambodia 2005

Age	1998 Census[1]	2000 CDHS survey[2]	2004 CIPS[3]	2005 CDHS survey
< 15	42.8	42.7	38.6	38.9
15-49	46.9	46.3	49.5	47.9
50-64	6.8	7.4	8.0	8.6
65 +	3.5	3.6	3.9	4.6
Total	100.0	100.0	100.0	100.0

[1] General Population Census of Cambodia, 1998 (National Institute of Statistics, 1999)
[2] Cambodia Demographic and Health Survey, 2000 (National Institute of Statistics and ORC Macro, 2001)
[3] Cambodia Inter-censal Population Survey, 2004 (National Institute of Statistics, 2004)

Household Composition

Table 2.3 shows the distribution of households in the survey by the sex of the head of the household and by the number of household members in urban and rural areas. Households in Cambodia are predominantly male-headed. However, one-quarter of households are headed by women, with 23 and 26 percent being female-headed households in rural and urban areas, respectively.

The average household size is 5.0 persons, smaller than the 5.4 persons per household observed in the 2000 CDHS. Rural households have 4.9 persons per household on average, and are slightly smaller than urban households (5.2 persons). Households with seven or more members are more common in urban areas (26 percent) than in rural areas (20 percent).

Table 2.3 Household composition

Percent distribution of households by sex of head of household and by household size, and mean size of household, according to residence, Cambodia 2005

Characteristic	Residence: Urban	Residence: Rural	Total
Household headship			
Male	73.6	77.0	76.5
Female	26.4	23.0	23.5
Total	100.0	100.0	100.0
Number of usual members			
1	3.9	2.8	2.9
2	7.5	7.8	7.7
3	11.7	14.8	14.4
4	17.4	20.0	19.7
5	18.6	19.0	18.9
6	14.6	15.3	15.2
7	10.9	10.0	10.1
8	7.7	5.5	5.8
9+	7.7	4.9	5.3
Total	100.0	100.0	100.0
Mean size of households	5.2	4.9	5.0
Number of households	2,066	12,177	14,243

Note: Table is based on de jure members, i.e., usual residents.

2.2 EDUCATION OF THE HOUSEHOLD POPULATION

Many behaviors, including those in the realm of reproduction, contraceptive use, child health, and proper hygiene, are affected by the education of household members. Information on the educational level of the male and female population age six and above is presented in Table 2.4. Survey results show that while the majority of Cambodians have not completed primary school, the country has experienced strong improvement in educational attainment over time. Overall, one in eight males has never attended school, while as many as one in four females has never attended school. Improvements over time have resulted in as few as 4 percent of girls and 5 percent of boys age 10-14 having never attended school at all.

Table 2.4 Educational attainment of household population

Percent distribution of the de facto female and male household population age six and over by highest level of education attended or completed and median grade completed, according to background characteristics, Cambodia 2005

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median grade
				FEMALE						
Age										
6-9	32.0	67.9	0.0	0.0	0.0	0.0	0.1	100.0	3,282	0.3
10-14	4.1	76.0	12.4	7.4	0.1	0.0	0.1	100.0	4,996	3.4
15-19	8.2	34.0	15.6	39.9	1.4	0.8	0.0	100.0	3,729	5.5
20-24	16.2	46.1	9.5	21.0	4.0	3.1	0.1	100.0	3,110	3.9
25-29	21.6	48.4	6.2	20.2	2.2	1.4	0.0	100.0	2,138	3.4
30-34	17.2	51.9	7.3	20.9	1.9	0.8	0.0	100.0	2,130	3.2
35-39	20.9	50.1	6.2	20.9	1.5	0.5	0.0	100.0	2,256	3.0
40-44	35.3	54.2	2.9	6.5	0.5	0.3	0.4	100.0	2,161	1.3
45-49	29.7	58.5	3.6	7.3	0.7	0.3	0.0	100.0	1,739	1.7
50-54	33.9	52.6	4.8	7.0	0.9	0.2	0.6	100.0	1,429	1.6
55-59	43.4	44.2	6.5	4.8	0.4	0.3	0.4	100.0	1,137	0.8
60-64	57.9	32.5	3.3	5.1	0.2	0.2	0.8	100.0	820	0.0
65+	85.1	12.2	0.8	1.4	0.0	0.0	0.5	100.0	1,888	0.0
Residence										
Urban	17.7	42.7	8.5	24.0	4.0	2.8	0.3	100.0	4,907	3.8
Rural	26.4	53.4	7.0	12.3	0.6	0.2	0.1	100.0	25,911	2.1
Province										
Banteay Mean Chey	28.1	56.0	5.8	9.4	0.3	0.0	0.3	100.0	1,221	1.6
Kampong Cham	28.2	52.7	7.6	10.6	0.5	0.1	0.1	100.0	4,014	2.2
Kampong Chhnang	23.6	55.3	6.9	13.0	0.9	0.0	0.3	100.0	1,100	2.2
Kampong Speu	23.9	58.0	6.7	10.5	0.5	0.3	0.2	100.0	1,715	1.9
Kampong Thom	21.8	58.1	6.2	11.9	1.3	0.0	0.6	100.0	1,527	2.2
Kandal	21.9	47.8	9.2	19.5	1.0	0.5	0.0	100.0	3,084	3.0
Kratie	24.6	52.4	6.8	15.2	0.9	0.0	0.1	100.0	604	2.1
Phnom Penh	13.5	39.3	10.0	27.8	5.0	4.3	0.1	100.0	2,888	4.8
Prey Veng	23.6	58.4	6.9	10.5	0.5	0.1	0.0	100.0	2,566	2.1
Pursat	28.4	53.5	6.0	11.2	0.4	0.4	0.2	100.0	938	1.9
Siem Reap	36.5	49.4	4.3	9.0	0.3	0.4	0.0	100.0	2,080	1.3
Svay Rieng	25.7	53.5	6.8	12.9	0.5	0.6	0.0	100.0	1,243	2.2
Takeo	23.3	50.2	7.8	17.4	1.0	0.2	0.2	100.0	2,160	2.8
Otdar Mean Chey	36.0	56.2	3.4	4.1	0.2	0.0	0.1	100.0	322	1.2
Battambang/Krong Pailin	20.3	53.7	7.9	16.0	1.3	0.8	0.0	100.0	2,171	2.7
Kampot/Krong Kep	22.9	53.7	8.6	13.9	0.7	0.2	0.2	100.0	1,566	2.4
Krong Preah Sihanouk/ Kaoh Kong	32.6	47.9	6.1	10.1	1.6	0.5	1.3	100.0	688	1.8
Preah Vihear/Steung Treng	32.2	57.3	3.1	7.0	0.3	0.1	0.1	100.0	546	1.0
Mondol Kiri/Rattanak Kiri	61.7	29.6	2.1	6.1	0.4	0.0	0.0	100.0	387	0.0
Total	25.0	51.7	7.3	14.1	1.1	0.7	0.2	100.0	30,817	2.3

Continued...

Half of the population has had some primary schooling without having completed primary school, male and female alike. However, 27 percent of the male population has gone on to attend secondary or higher schooling, while only 16 percent of females have had secondary or higher schooling. Improvements over time have resulted in approximately 40 percent of males in their twenties and thirties having gone on to secondary school, and approximately 25 percent of females in their twenties and thirties having done so. As would be expected, higher percentages of males and females in urban areas have gone on for secondary schooling than have rural males and females. There is a great deal of regional variation in educational attainment across provinces, with approximately 20-35 percent having never been to school. The outliers are Mondol Kiri/Rattanak Kiri and Phnom Penh, where 62 percent and 14 percent have never been to school, respectively. The percent of men who have never been to school clusters around 10 to 25 percent across provinces, with the same outliers of Mondol Kiri/Rattanak Kiri and Phnom Penh, where 44 percent and 5 percent have never been to school, respectively.

Table 2.4—*Continued*

Percent distribution of the de facto female and male household population age six and over by highest level of education attended or completed and median grade completed, according to background characteristics, Cambodia 2005

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median grade
				MALE						
Age										
6-9	35.5	64.3	0.0	0.0	0.0	0.0	0.1	100.0	3,327	0.2
10-14	4.5	78.8	9.6	7.0	0.1	0.0	0.0	100.0	5,029	3.0
15-19	4.8	33.5	15.3	44.8	1.3	0.4	0.0	100.0	3,763	5.8
20-24	8.2	35.2	9.8	34.7	6.1	5.8	0.3	100.0	2,698	5.7
25-29	11.2	40.1	6.9	30.0	6.3	5.2	0.3	100.0	1,875	4.9
30-34	11.3	36.1	8.7	34.0	5.6	3.8	0.4	100.0	1,730	5.3
35-39	9.5	38.2	7.1	35.8	4.7	4.4	0.3	100.0	1,819	5.4
40-44	18.5	44.6	6.2	23.8	2.9	3.2	0.9	100.0	1,740	3.4
45-49	14.7	55.7	9.4	16.2	1.6	1.5	0.8	100.0	1,150	2.9
50-54	10.9	51.0	13.0	18.4	3.9	1.9	1.0	100.0	952	3.8
55-59	12.8	48.6	16.0	17.4	3.7	0.6	1.0	100.0	758	3.9
60-64	15.7	47.1	11.6	20.2	3.1	1.0	1.4	100.0	622	3.4
65+	30.7	43.6	9.5	12.5	1.9	0.5	1.3	100.0	1,214	2.5
Residence										
Urban	8.7	37.7	8.8	29.2	7.3	7.5	0.8	100.0	4,180	5.4
Rural	14.1	52.9	8.9	21.1	1.7	0.9	0.3	100.0	22,496	3.3
Province										
Banteay Mean Chey	16.4	58.8	7.4	14.4	1.0	0.2	1.8	100.0	1,053	2.5
Kampong Cham	14.4	55.5	9.6	18.1	2.0	0.4	0.0	100.0	3,533	3.3
Kampong Chhnang	10.9	55.1	10.1	21.9	1.5	0.2	0.3	100.0	930	3.4
Kampong Speu	11.9	54.9	10.1	20.3	1.4	0.4	1.1	100.0	1,445	3.4
Kampong Thom	13.8	57.0	7.7	17.8	2.2	0.5	1.0	100.0	1,338	2.9
Kandal	10.0	46.9	8.7	30.0	2.6	1.8	0.0	100.0	2,713	4.4
Kratie	19.0	51.4	8.8	18.6	1.5	0.2	0.4	100.0	536	2.7
Phnom Penh	5.0	32.0	8.8	31.6	9.2	13.2	0.2	100.0	2,473	6.7
Prey Veng	8.1	55.0	10.6	24.5	1.4	0.4	0.0	100.0	2,018	3.9
Pursat	17.6	53.9	8.4	17.9	1.6	0.6	0.0	100.0	835	2.9
Siem Reap	26.1	51.7	6.3	13.1	1.3	1.2	0.4	100.0	1,759	2.3
Svay Rieng	8.6	50.4	11.1	26.6	1.4	1.9	0.0	100.0	1,115	4.1
Takeo	12.5	43.6	9.8	30.5	3.0	0.5	0.1	100.0	1,956	4.4
Otdar Mean Chey	23.8	60.6	4.3	10.1	1.1	0.1	0.2	100.0	289	2.1
Battambang/Krong Pailin	10.4	53.2	9.7	22.9	2.4	1.3	0.0	100.0	1,841	3.6
Kampot/Krong Kep	10.6	55.0	10.4	21.0	2.1	0.6	0.3	100.0	1,348	3.6
Krong Preah Sihanouk/ Kaoh Kong	17.9	45.6	6.6	20.7	2.9	1.4	4.9	100.0	619	3.2
Preah Vihear/Steung Treng	23.1	56.4	5.5	12.8	1.3	0.7	0.1	100.0	499	1.9
Mondol Kiri/Rattanak Kiri	43.8	39.6	3.6	10.9	1.2	0.8	0.1	100.0	379	0.4
Total	13.3	50.5	8.9	22.3	2.6	2.0	0.4	100.0	26,676	3.6

[1] Completed grade 6 at the primary level
[2] Completed grade 12 at the secondary level

School Attendance Ratios

Data on net attendance ratios (NARs) and gross attendance ratios (GARs) by school level, sex, residence, and province are shown in Table 2.5. The NAR indicates participation in primary schooling for the population age 6-12 and secondary schooling for the population age 13-18. The GAR measures participation at each level of schooling among those age 6-24. The GAR is nearly always higher than the NAR for the same level because the GAR included participation by those who may be older or younger than the official age range for that level. A NAR of 100 percent would indicate that all those in the official age range for the level are attending at that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling. Overage for a given level of schooling occurs when students start school earlier, repeat one or more grades, or drop out of school and later return.

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and gender parity index (GPI), according to background characteristics, Cambodia 2005

Background characteristic	Net attendance ratio[1]			Gross attendance ratio[2]			Gender parity index[3]
	Male	Female	Total	Male	Female	Total	
PRIMARY SCHOOL							
Residence							
Urban	76.6	79.5	78.0	104.9	101.9	103.4	0.97
Rural	76.3	78.0	77.1	113.7	108.8	111.2	0.96
Province							
Banteay Mean Chey	80.0	83.8	81.9	110.1	105.9	108.0	0.96
Kampong Cham	79.2	81.1	80.1	120.3	112.2	116.3	0.93
Kampong Chhnang	82.5	81.9	82.2	116.9	108.1	112.6	0.92
Kampong Speu	81.1	81.1	81.1	126.6	115.5	120.7	0.91
Kampong Thom	76.7	79.3	78.0	119.1	113.3	116.2	0.95
Kandal	84.4	77.3	80.7	111.8	101.3	106.4	0.91
Kratie	64.6	69.9	67.2	101.0	89.9	95.4	0.89
Phnom Penh	78.4	79.1	78.7	98.9	103.6	101.1	1.05
Prey Veng	79.9	84.8	82.3	125.2	120.8	123.0	0.97
Pursat	67.5	69.3	68.3	106.5	110.5	108.4	1.04
Siem Reap	63.9	74.0	69.1	94.6	101.1	97.9	1.07
Svay Rieng	79.3	79.3	79.3	124.4	112.9	118.7	0.91
Takeo	75.3	80.5	77.9	109.7	111.6	110.6	1.02
Otdar Mean Chey	62.7	73.1	67.7	105.3	108.5	106.8	1.03
Battambang/Krong Pailin	79.1	81.3	80.2	115.5	112.3	113.9	0.97
Kampot/Krong Kep	83.6	82.9	83.2	122.6	116.0	119.3	0.95
Krong Preah Sihanouk/ Kaoh Kong	66.2	68.7	67.5	97.4	92.8	95.1	0.95
Preah Vihear/Steung Treng	67.0	63.4	65.2	103.7	94.2	99.0	0.91
Mondol Kiri/Rattanak Kiri	30.4	27.0	28.7	55.5	41.1	48.3	0.74
Total	76.4	78.2	77.3	112.5	107.9	110.2	0.96
SECONDARY SCHOOL							
Residence							
Urban	47.0	43.3	45.0	64.1	50.2	56.6	0.78
Rural	27.0	23.3	25.2	35.6	26.7	31.3	0.75
Province							
Banteay Mean Chey	21.3	22.5	21.9	26.9	24.2	25.6	0.90
Kampong Cham	23.8	16.7	20.5	29.0	18.2	24.0	0.63
Kampong Chhnang	33.6	36.5	35.0	45.3	42.3	43.9	0.93
Kampong Speu	26.6	18.7	22.8	35.4	22.4	29.1	0.63
Kampong Thom	27.5	27.5	27.5	35.8	33.2	34.6	0.93
Kandal	41.1	38.0	39.6	52.1	41.4	46.9	0.79
Kratie	22.4	31.3	26.5	27.4	34.6	30.8	1.26
Phnom Penh	52.3	40.7	45.7	70.8	47.3	57.3	0.67
Prey Veng	25.9	24.1	25.0	36.5	28.4	32.5	0.78
Pursat	23.9	19.1	21.4	32.4	22.5	27.3	0.69
Siem Reap	15.7	16.9	16.3	21.9	20.7	21.3	0.95
Svay Rieng	30.9	25.0	28.1	41.6	28.5	35.5	0.68
Takeo	40.0	36.1	38.2	59.0	41.4	50.8	0.70
Otdar Mean Chey	11.9	6.8	9.4	15.2	7.8	11.5	0.51
Battambang/Krong Pailin	26.4	25.9	26.1	34.5	29.9	32.1	0.87
Kampot/Krong Kep	33.3	33.2	33.2	44.2	39.7	41.9	0.90
Krong Preah Sihanouk/ Kaoh Kong	27.4	18.3	22.9	35.2	20.6	28.0	0.58
Preah Vihear/Steung Treng	18.7	15.1	16.8	26.4	18.1	22.1	0.69
Mondol Kiri/Rattanak Kiri	11.6	7.9	9.7	16.5	9.2	12.8	0.56
Total	29.9	26.7	28.3	39.8	30.7	35.3	0.77

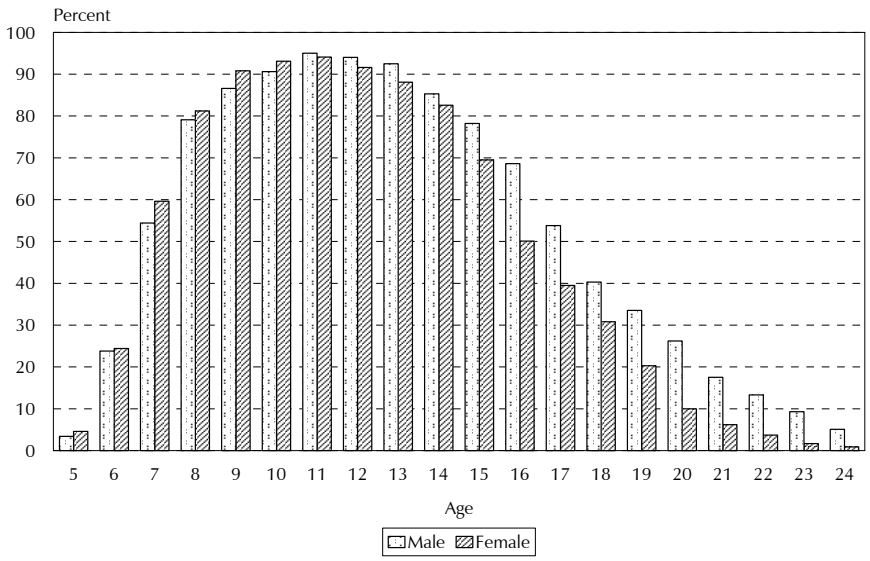
[1] The NAR for primary school is the percentage of the primary-school age (6-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school age (13-18 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.
[3] The gender parity index for primary school is the ratio of the primary school GAR for females to the GAR for males. The gender parity index for secondary school is the ratio of the secondary school GAR for females to the GAR for males.

Of those children who should be attending primary school, 77 percent are currently doing so. In 2000, 68 percent of children who should have been attending primary school were doing so. The NAR is significantly lower at the secondary school level, but has also improved since 2000. Twenty-eight percent of secondary-school-age youths are in school at that level, an increase from 16 percent in 2000. There is little difference between the NAR of males and females at both the primary and secondary level, as the NAR has increased since 2000 among females to equal that of males. The NAR among secondary-school-age females has increased since 2000 from 12 to 27 percent.

Table 2.5 also shows the Gender Parity Index (GPI) for primary and secondary school. The GPI for primary school is the ratio of the primary school GAR for females to the GAR for males. The GPI for secondary school is the ratio of the secondary school GAR for females to the GAR for males. The primary school GPI of 0.96 indicates near gender parity at the primary level, in both urban and rural areas. The GPI of 0.77 at the secondary school level reflects the fact that smaller proportions of girls attend secondary school than do boys, and the measure of gender parity varies across provinces far more greatly at the secondary school level than that at the primary school level.

Figure 2.2 illustrates age-specific attendance rates, the percentage of a given age cohort who attend school, regardless of the level attended (primary, secondary, or higher). Although the minimum age for schooling in Cambodia is six, there are some children enrolled prior to this age, and only one-quarter of children age six are attending school.

Figure 2.2 **Age-specific Attendance Rates**



Note: Figure shows percentage of the de jure household population age 5-24 years attending school.

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Boys and girls attend school in about equal proportions up to and including age 14. Up to and including age ten, the proportion of girls attending school is slightly higher than for boys, and then slightly lower than for boys up to age 14. It is after age 14 that boys are attending school at a noticeably higher proportion than girls.

Grade Repetition and Dropout Rates

Repetition and dropout rates describe the flow of pupils through the system at the primary level. Repetition rates indicate the percentage of pupils who attended a particular grade during the school year that started in 2003, and who again attended that same class during the following school year beginning in 2004. The dropout rate shows the percentage of pupils in a grade during the school year that started in 2003 who no longer attended school the following school year that began in 2004. Table 2.6 shows repetition and dropout rates by primary school class, according to pupils' background characteristics.

Table 2.6 Grade repetition and dropout rates

Repetition and dropout rates for the de facto household population age 6-24 who attended primary school in the previous school year by school grade, according to background characteristics, Cambodia 2005

Background characteristic	School grade							
	1	2	3	4	5	6	7	8
	REPETITION RATE[1]							
Sex								
Male	25.5	8.2	6.0	4.9	3.6	2.5	0.0	0.0
Female	25.1	6.5	4.0	2.9	1.7	1.2	0.0	0.0
Residence								
Urban	22.0	5.7	3.5	2.3	1.2	1.0	0.0	0.0
Rural	25.7	7.6	5.2	4.1	2.9	2.1	0.0	0.0
Province								
Banteay Mean Chey	18.3	4.1	1.9	1.0	0.0	3.7	-	-
Kampong Cham	23.2	8.4	9.8	9.0	4.8	3.1	0.0	-
Kampong Chhnang	30.6	9.6	5.2	4.1	4.4	2.6	-	-
Kampong Speu	31.2	13.5	5.1	5.2	1.2	0.0	0.0	0.0
Kampong Thom	29.9	2.5	1.2	1.0	1.6	0.0	-	0.0
Kandal	17.2	6.3	6.8	5.1	5.1	1.6	-	-
Kratie	14.4	4.4	2.6	4.5	1.0	0.0	-	-
Phnom Penh	18.4	3.4	2.5	1.1	0.0	0.0	0.0	0.0
Prey Veng	35.3	11.4	6.6	5.4	3.1	0.0	0.0	-
Pursat	8.3	5.1	1.6	0.0	0.0	0.6	0.0	0.0
Siem Reap	15.9	2.7	1.5	1.7	0.0	5.8	0.0	-
Svay Rieng	23.3	2.8	1.8	2.2	0.0	5.7	-	-
Takeo	15.4	0.8	0.7	2.3	3.0	2.2	-	-
Otdar Mean Chey	10.3	1.6	5.6	0.0	2.7	2.3	-	-
Battambang/Krong Pailin	37.6	11.9	7.8	4.3	0.9	3.8	0.0	-
Kampot/Krong Kep	40.2	12.1	2.2	2.1	4.2	0.0	-	0.0
Krong Preah Sihanouk/ Kaoh Kong	18.2	11.0	8.7	6.1	7.9	11.1	-	-
Preah Vihear/Steung Treng	36.6	13.6	5.2	3.0	3.5	0.0	-	-
Mondol Kiri/Rattanak Kiri	17.6	9.7	3.5	4.0	0.0	2.6	0.0	-
Total	25.3	7.4	5.0	3.9	2.6	2.0	0.0	0.0
	DROPOUT RATE[2]							
Sex								
Male	0.2	0.9	0.6	2.4	2.0	3.3	2.5	0.0
Female	0.3	0.5	1.4	2.5	3.0	6.2	0.0	59.5
Residence								
Urban	0.3	0.7	1.2	2.6	1.5	3.2	44.4	0.0
Rural	0.3	0.7	0.9	2.4	2.7	4.8	0.0	40.1
Province								
Banteay Mean Chey	1.3	0.0	1.1	1.0	1.5	3.9	-	-
Kampong Cham	0.0	0.0	0.0	3.9	2.5	8.2	0.0	-
Kampong Chhnang	0.6	1.8	1.1	4.3	2.5	6.0	-	-
Kampong Speu	0.0	0.0	2.3	1.8	3.3	9.4	0.0	100.0
Kampong Thom	0.5	1.3	0.0	1.4	1.1	2.9	-	0.0
Kandal	0.0	0.8	1.5	0.9	4.1	8.1	-	-
Kratie	0.0	2.1	4.5	5.4	6.1	6.1	-	-
Phnom Penh	0.0	1.7	1.3	6.3	0.8	3.2	0.0	0.0
Prey Veng	0.0	0.0	0.0	3.4	1.0	0.0	0.0	-
Pursat	0.0	2.0	0.9	2.5	0.0	0.0	0.0	0.0
Siem Reap	0.5	2.0	2.2	4.2	2.6	2.7	0.0	-
Svay Rieng	0.0	0.0	0.0	0.9	0.0	0.0	-	-
Takeo	0.0	0.0	0.0	0.6	0.0	1.9	-	-
Otdar Mean Chey	0.0	0.2	0.2	0.3	0.0	0.0	-	-
Battambang/Krong Pailin	0.9	1.5	2.8	1.7	7.3	8.9	0.0	-
Kampot/Krong Kep	0.0	0.0	0.0	0.0	1.8	0.0	-	0.0
Krong Preah Sihanouk/ Kaoh Kong	0.0	0.0	0.0	1.5	4.1	3.1	-	-
Preah Vihear/Steung Treng	1.8	4.5	4.4	8.2	11.4	2.3	-	-
Mondol Kiri/Rattanak Kiri	0.0	0.0	2.8	4.7	14.2	7.5	44.4	-
Total	0.3	0.7	1.0	2.5	2.5	4.5	1.6	19.8

[1] The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.
[2] The dropout rate is the percentage of students in a given grade in the previous school year who are not attending school in the current school year.

Repetition rates for grade 1 are nearly the same for boys and girls, but boys have a slightly higher repetition rate in subsequent years of primary school. Repetition rates are slightly higher in rural areas than in urban areas. Overall, one-quarter of children repeat the first grade of primary school, and the repetition rate varies substantially across provinces.

There have been great strides in education in Cambodia and the low dropout rates attest to that fact. Once children enter primary school they are likely to finish. There are a few noticeable exceptions, however, such as in Mondol Kiri/Rattanak Kiri, where 14 percent of students dropped out after the fifth grade.

2.3 HOUSING CHARACTERISTICS

The type of water and sanitation facilities are important determinants of the health status of household members and particularly of children. Proper hygienic and sanitation practices can reduce exposure to and the seriousness of major childhood diseases such as diarrhea. The CDHS asked respondents about the household source of drinking water, the time required to get to the source of that water, and the type of sanitation facility used by the household. In Cambodia, the source of drinking water can vary between the dry season and the rainy season, so separate questions were asked for the different seasons. If households had more than one source of drinking water, respondents were asked to identify the most commonly used source.

Water Supply

Table 2.7 shows that sources of drinking water were the same during the dry and rainy seasons for three-quarters of urban households and over 60 percent of rural households. The source of drinking water is an indicator of whether it is suitable for drinking. Sources which are considered likely to be of suitable quality are listed under “Improved source,” and those which may not be of suitable quality are listed under “Non-improved source.” The categorization into improved and non-improved is proposed by WHO, UNICEF, and the Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

During the dry season, 43 percent of households in Cambodia consume drinking water from a non-improved source. This percent declines to 24 percent of households during the rainy season, as more households utilize rainwater for drinking water. The main source of drinking water during the rainy season is rainwater for one-third of households. Rainwater is the most common source of drinking water during the rainy season for rural households and for urban households that do not have water piped into their dwelling or property. Much of the increase in use of non-improved water sources during the dry season is due to a increased reliance on surface water.

Even if water is not piped directly into the dwelling or yard, it is common for the source of water to be on the household premises, especially during the rainy season. Two-thirds of rural households and 80 percent of urban households report that their source of drinking water during the rainy season is located on the household premises. During the dry season, the percentage of households with their source of drinking water on the premises declines to 63 percent and 38 percent among urban and rural households, respectively. For those households not having a source of drinking water on the premises nor having water delivered, the majority are within a 30 minute or less roundtrip time of obtaining it. During the dry season only about 10 percent have 30 minutes or longer away from a source (or don't know), compared with the rainy season, where that number drops to just over three percent requiring 30 minutes or more (or not knowing the time required). The person to most commonly retrieve the water is an adult, either male or female in generally equal proportion.

Table 2.7 Household drinking water

Percent distribution of households by source of drinking water, time to collect water (if not within residence or plot), person fetching the water, and percentage of households using various modes for treating drinking water, according to residence; and percent distribution of the de jure population by household drinking water arrangements and percentage of the de jure population living in households using various modes to treat drinking water, Cambodia 2005

	Residence			De jure
	Urban	Rural	Total	population
DRY SEASON: Source of drinking water				
Improved source	67.3	53.7	55.6	54.6
Piped water into dwelling/yard/plot	40.5	5.2	10.3	10.8
Public tap/standpipe	0.3	0.2	0.2	0.2
Tube well or borehole	17.4	31.9	29.8	28.7
Protected dug well	6.9	14.1	13.1	12.7
Protected spring	0.2	0.2	0.2	0.2
Rainwater	1.9	2.1	2.1	1.9
Non-improved source	25.0	45.5	42.5	43.6
Unprotected dug well	5.4	14.5	13.2	13.5
Unprotected spring	0.5	1.2	1.1	1.2
Tanker truck/cart with small tank	6.9	5.0	5.3	5.1
Surface water	12.3	24.7	22.9	23.8
Bottled water[1]	7.0	0.7	1.6	1.6
Improved source for cooking, washing	5.9	0.4	1.2	1.1
Unimproved source for cooking	1.1	0.3	0.4	0.5
Other sources	0.7	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0
DRY SEASON: Time to obtain drinking water (round trip)				
Water delivered	6.3	8.3	8.0	8.0
Water on premises	62.9	38.0	41.6	42.1
Less than 30 minutes	21.6	44.0	40.7	40.0
30 minutes or longer	3.7	7.7	7.1	7.3
Don't know	5.5	2.0	2.5	2.7
Total	100.0	100.0	100.0	100.0
DRY SEASON: Person who usually collects drinking water				
Adult female 15+	8.9	21.4	19.6	18.9
Adult male 15+	14.0	25.9	24.2	24.2
Female child under age 15	0.8	2.4	2.2	2.4
Male child under age 15	0.8	1.4	1.3	1.5
Other	6.2	2.4	2.9	2.8
Water on premises/ delivered	69.2	46.3	49.6	50.0
Total	100.0	100.0	100.0	100.0
RAINY SEASON: Source of drinking water				
Improved source	82.1	73.5	74.8	74.1
Piped water into dwelling/yard/plot	37.0	4.4	9.2	9.6
Public tap/standpipe	0.1	0.1	0.1	0.1
Tube well or borehole	14.3	24.3	22.8	21.9
Protected dug well	4.2	10.8	9.8	9.5
Protected spring	0.2	0.1	0.1	0.1
Rainwater	26.2	33.9	32.8	32.9
Non-improved source	11.5	25.8	23.7	24.5
Unprotected dug well	3.6	12.6	11.3	11.6
Unprotected spring	0.2	0.5	0.5	0.5
Tanker truck/cart with small tank	2.5	1.2	1.4	1.4
Surface water	5.2	11.4	10.5	10.9
Bottled water[1]	6.1	0.5	1.3	1.3
Improved source for cooking, washing	5.5	0.3	1.0	1.0
Unimproved source for cooking	0.6	0.2	0.2	0.3
Other sources	0.4	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0

Continued...

Nearly 60 percent of rural households boil their water prior to drinking, and three-quarters of urban households do so. Among those who do not boil their water, the most common action is to do nothing to treat the water prior to drinking. One-third of rural (36 percent) and one-fifth of urban households (20 percent) report they do nothing to treat their drinking water prior to consuming it. Overall, one-third of households do nothing to treat their water prior to drinking. Twelve percent of households allow the water to stand and settle prior to drinking.

Table 2.7—*Continued*

Percent distribution of households by source of drinking water, time to collect water (if not within residence or plot), person fetching the water, and percentage of households using various modes for treating drinking water, according to residence; and percent distribution of the de jure population by household drinking water arrangements and percentage of the de jure population living in households using various modes to treat drinking water, Cambodia 2005

	Residence			
	Urban	Rural	Total	De jure population
RAINY SEASON: Time to obtain drinking water (round trip)				
Water delivered	3.4	3.4	3.4	3.4
Water on premises	79.9	64.0	66.3	66.9
Less than 30 minutes	12.8	29.4	27.0	26.2
30 minutes or longer	1.3	2.3	2.2	2.1
Don't know	2.6	0.9	1.2	1.3
Total	100.0	100.0	100.0	100.0
RAINY SEASON: Person who usually collects drinking water				
Adult female 15+	5.6	14.6	13.3	12.8
Adult male 15+	7.1	14.3	13.3	12.9
Female child under age 15	0.6	1.6	1.4	1.6
Male child under age 15	0.4	0.9	0.8	0.9
Other	3.1	1.2	1.5	1.4
Water on premises/ delivered	83.2	67.3	69.6	70.3
Total	100.0	100.0	100.0	100.0
Percent where rainy and dry season drinking water sources are the same	73.3	61.8	63.4	63.1
Water treatment prior to drinking[2]				
Boiled	76.0	57.3	60.0	59.7
Bleach/chlorine	0.1	0.1	0.1	0.1
White alum	1.7	1.0	1.1	1.2
Strained through cloth	0.7	0.3	0.4	0.4
Ceramic, sand or other filter	3.3	1.9	2.1	2.2
Solar disinfection	0.0	0.0	0.0	0.0
Stand and settle	7.4	12.2	11.5	11.8
Other	0.5	0.4	0.4	0.5
No treatment	19.6	36.3	33.9	34.4
Number	2,066	12,177	14,243	70,637

[1] Because the quality of drinking water is not known, households using bottled water for drinking are classified as using an improved or non-improved source according to their water source for cooking and washing.
[2] Respondents may report multiple treatment methods so the sum of treatment may exceed 100 percent.

Sanitation Facilities

A household's toilet facility is classified as hygienic if it is used only by households members (is not shared by other households) and if the type of toilet effectively separates human waste from human contact. The types of facilities most likely to accomplish this are flush or pour flush into a piped sewer system/septic tank/pit latrine, ventilated, improved pit (VIP) latrine, pit latrine with a slab and a composting toilet. A household's sanitation facility is classified as unhygienic if it is shared with other households or if it does not effectively separate human waste from human contact. Categories are those proposed by WHO, UNICEF, and JMP.

Table 2.8 Household sanitation facilities

Percent distribution of households by type of toilet/latrine facilities, according to residence, and the percent distribution of the de jure population by type of toilet facilities, Cambodia 2005

Type of toilet/ latrine facility	Residence		Total	De jure population
	Urban	Rural		
Improved, not shared				
Flush/pour flush to piped sewer system	28.9	1.1	5.2	5.7
Flush/pour flush to septic tank	25.8	12.6	14.5	15.6
Flush/pour flush to a pit latrine	0.6	0.4	0.4	0.5
Ventilated improved pit (VIP) latrine	0.1	0.2	0.2	0.2
Pit latrine with a slab	0.6	1.2	1.1	1.2
Composting toilet	0.1	0.2	0.2	0.2
Not improved				
Any facility shared with other households	7.1	4.1	4.5	4.3
Flush/pour flush not to sewer/ septic tank/pit latrine	0.9	0.1	0.2	0.2
Pit latrine without slab/open pit	0.7	0.9	0.9	0.9
Bucket	0.2	0.1	0.1	0.1
Hanging toilet/hanging latrine	2.0	0.7	0.9	0.8
No facility/bush/field	32.3	78.1	71.4	70.1
Other	0.6	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0
Number	2,066	12,177	14,243	70,637

Households vary greatly in access to hygienic facilities by urban and rural residence, as shown in Table 2.8. The majority of households in rural areas have no toilet facility, with three out of four households reporting no toilet facility and making use of fields or bush areas. In urban areas, one in three households has no toilet facility; however, one-half of urban households does use a flush or pour toilet that is piped to a sewer or septic system.

Table 2.9 presents the distribution of households by the characteristics of the dwelling in which they live. In urban areas, two out of three households live in dwellings with electricity, while in rural areas, only one in every five households has electricity. Wood planks provide the most common type of flooring material in both urban and rural areas. Four out of ten urban households live in dwellings with wood planks, followed by one-quarter who live in dwellings with ceramic tiles. In rural areas, one-half of households live in dwellings with wood plank flooring, followed by one-third who live in dwellings with palm or bamboo flooring. If there was more than one type of flooring, interviewers recorded the predominant flooring material. Most households sleep together in one room, although in urban areas, 30 percent of households use two or more rooms for sleeping.

Cooking Arrangements

Nine in ten rural households use firewood or straw for cooking fuel. While firewood or straw is also the most common source of fuel for cooking in urban areas, there is more variability in urban areas as to what is used for cooking fuel. Forty-four percent of urban households use firewood or straw, 30 percent use liquid petroleum or natural gas, and 25 percent use charcoal. Nearly all households do their cooking over an open fire, without a chimney to divert the smoke. One-half of urban households and one-third of rural households report that they do their cooking in the house.

Table 2.9 Housing characteristics

Percent distribution of households by housing characteristics, according to residence and percent distribution of the de jure population by housing characteristics, Cambodia 2005

Housing characteristic	Residence		Total	De jure population
	Urban	Rural		
Electricity				
Yes	66.8	12.6	20.5	21.3
No	33.1	87.4	79.5	78.6
Total	100.0	100.0	100.0	100.0
Flooring material				
Earth, sand	5.4	9.0	8.5	7.7
Wood planks	40.5	49.4	48.1	50.2
Palm, bamboo	10.0	33.4	30.0	28.5
Parquet, polished wood	0.1	0.0	0.0	0.0
Vinyl, asphalt strips	0.1	0.2	0.2	0.2
Ceramic tiles	26.2	2.5	5.9	6.5
Cement tiles	9.0	0.7	1.9	1.9
Cement	8.5	4.3	4.9	4.6
Floating house	0.1	0.1	0.1	0.1
Other	0.1	0.3	0.3	0.2
Total	100.0	100.0	100.0	100.0
Rooms used for sleeping				
One	69.6	87.5	84.9	82.9
Two	17.9	9.6	10.8	11.9
Three or more	12.1	2.4	3.8	4.8
Total	100.0	100.0	100.0	100.0
Cooking fuel				
Electricity	0.6	0.1	0.2	0.2
LPG, natural gas	29.3	3.4	7.1	7.0
Biogas	0.9	0.0	0.2	0.2
Kerosene	0.1	0.0	0.0	0.0
Coal, lignite	0.0	0.0	0.0	0.0
Charcoal	25.4	4.9	7.9	8.3
Firewood, straw	43.6	91.3	84.4	84.1
Dung	0.0	0.2	0.1	0.2
Other	0.2	0.1	0.1	0.0
Total	100.0	100.0	100.0	100.0
Place for cooking				
In the house	55.2	35.2	38.1	36.7
In a separate building	14.5	23.7	22.3	23.6
Outdoors	20.4	25.3	24.6	25.1
Under the house	9.2	15.4	14.5	14.2
Other	0.7	0.5	0.5	0.5
Total	100.0	100.0	100.0	100.0
Number of households	2,066	12,177	14,243	70,637
Type of fire/stove among households using solid fuel[1]				
Open fire	97.4	98.0	97.9	97.8
Open fire with chimney	0.4	0.3	0.3	0.4
Other	2.0	1.4	1.4	1.6
Total	100.0	100.0	100.0	100.0
Number of households/population using solid fuel	1,424	11,738	13,162	65,433

[1] Includes coal/lignite, charcoal, wood/straw/shrubs, and animal dung

2.4 HOUSEHOLD POSSESSIONS

Information on ownership of durable goods and other possessions is presented in Table 2.10. The availability of durable consumer goods is a good indicator of household socioeconomic level, and particular goods have specific benefits. For example, radio access can increase exposure to innovative ideas, whereas transport vehicles can provide access to services out of the local area.

Over one-half of all households in Cambodia own a television, an increase from one-third of all households in 2000. One in five households owns a mobile telephone, up from four percent in 2000. Ownership of mobile telephones is far more common among urban households (55 percent), but not unknown in rural households (14 percent). Ownership of transportation has increased since 2000 as well. Fifteen percent of urban households now own a car or truck, having increased from 10 percent in 2000. One-third of all households own a motorcycle, an increase from one-quarter of households in 2000. Percentage of households owning a boat remains unchanged, at nine percent.

The 2005 CDHS found that nearly three-quarters of all households own some land, and that three-quarters of all households own at least one farm animal.

Table 2.10 Household possessions

Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land and farm animals, by residence, Cambodia 2005

Possessions	Residence: Urban	Residence: Rural	Total	De jure population
Household effects				
Radio	62.8	47.3	49.6	51.2
Television	72.2	52.3	55.2	58.5
Mobile telephone	55.1	14.2	20.1	22.0
Refrigerator	15.9	0.7	2.9	3.4
Wardrobe	57.4	25.3	30.0	31.7
Sewing machine/loom	16.8	6.9	8.4	9.4
Means of transport				
Bicycle	58.2	70.0	68.3	72.2
Animal-drawn cart	7.1	27.0	24.1	26.5
Motorcycle/scooter	55.4	31.1	34.6	38.0
Car/truck	15.2	2.0	3.9	4.8
Boat with a motor	3.3	3.4	3.4	3.7
Boat without motor	3.7	5.7	5.4	6.0
Ownership of agricultural land	34.1	77.9	71.5	72.2
Ownership of farm animals[1]	37.1	79.2	73.1	75.5
Number of households/ population	2,066	12,177	14,243	70,637

[1] Cattle, cows, bulls, horses, donkeys, goats, sheep, or chicken

2.5 HOUSEHOLD WEALTH

In addition to standard background characteristics, many of the results in this report are shown by wealth quintiles, an indicator of the economic status of households. The CDHS did not collect data on consumption or income, but the information collected on dwelling and household characteristics, consumer goods, and assets are used as a measure of socio-economic status. The resulting wealth index is an indicator of the level of wealth that is consistent with expenditure and income measures.

Each household asset for which information is collected is assigned a weight or factor score generated through principal components analysis. The resulting asset scores are standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one.

These standardized scores are then used to create the break points that define wealth quintiles. Each household is assigned a standardized score for each asset, where the score differs depending on whether or not the household owned that asset (or, in the case of sleeping arrangements, the number of people per room). These scores are summed by household, and individuals are ranked according to the total score of the household in which they reside. The sample is then divided into population quintiles, i.e., five groups with the same number of individuals in each. At the national level, approximately 20 percent of the household population is in each wealth quintile.

A single asset index is developed on the basis of data from the entire country sample and used in all the tabulations presented. The reader should keep in mind that wealth quintiles are expressed in terms of quintiles of individuals in the population, rather than quintiles of individuals at risk for any one health or population indicator. For example, the quintile rates for infant mortality refer to the infant mortality rates per 1,000 live births among all people in the population quintile concerned, as distinct from quintiles of live births or newly-born infants, who constitute the only members of the population at risk of mortality during infancy.

The wealth index has been compared against both poverty rates and gross domestic product per capita for India, and against expenditure data from household surveys in Nepal, Pakistan, and Indonesia (Filmer and Pritchett, 1998) and Guatemala (Rutstein 1999). The evidence from those studies suggests that the assets index is highly comparable to conventionally-measured consumption expenditures.

Table 2.11 shows the distribution of the *de jure* household population into five wealth quintiles (five equally divided levels) based on the wealth index by residence. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed across Cambodia. As expected, urban areas are wealthier than rural areas. For example, 87 percent of Phnom Penh's population falls in the highest wealth quintile. By contrast, the province with the lowest representation in the highest wealth quintile is Otdar Mean Chey, with only five percent of its population in the highest wealth quintile.

Table 2.11 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles according to residence and region, Cambodia 2005

Residence/ province	Wealth quintile					Total	Number of de jure population
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	6.3	7.0	8.9	13.7	64.0	100.0	10,798
Rural	22.5	22.3	22.0	21.1	12.1	100.0	59,839
Province							
Banteay Mean Chey	18.0	26.1	24.2	18.7	13.1	100.0	2,881
Kampong Cham	19.5	22.5	22.2	25.0	10.8	100.0	9,242
Kampong Chhnang	32.2	25.6	20.1	15.3	6.8	100.0	2,560
Kampong Speu	21.3	22.5	28.3	20.7	7.1	100.0	3,806
Kampong Thom	40.4	20.6	16.8	11.9	10.2	100.0	3,500
Kandal	7.0	11.4	20.8	36.0	24.8	100.0	6,945
Kratie	27.0	19.6	21.7	20.6	11.1	100.0	1,481
Phnom Penh	0.1	1.3	2.6	9.4	86.6	100.0	6,188
Prey Veng	27.9	28.6	23.3	12.8	7.4	100.0	5,869
Pursat	19.0	27.5	29.1	13.6	10.8	100.0	2,102
Siem Reap	31.2	24.8	14.0	12.4	17.6	100.0	4,791
Svay Rieng	21.3	23.5	25.6	20.7	8.9	100.0	2,805
Takeo	14.4	21.0	28.5	27.0	9.0	100.0	4,841
Otdar Mean Chey	30.5	33.4	19.9	11.3	5.0	100.0	780
Battambang/Krong Pailin	18.9	17.3	16.5	24.8	22.4	100.0	5,180
Kampot/Krong Kep	17.0	22.8	25.3	24.6	10.3	100.0	3,495
Krong Preah Sihanouk/ Kaoh Kong	9.6	12.1	14.5	18.0	45.8	100.0	1,608
Preah Vihear/Steung Treng	40.2	26.6	16.8	8.4	8.0	100.0	1,440
Mondol Kiri/Rattanak Kiri	43.5	22.0	14.3	11.3	8.9	100.0	1,123
Total	20.0	20.0	20.0	20.0	20.0	100.0	70,637

2.6 BIRTH REGISTRATION

The registration of births is the inscription of the facts of the birth into an official log. A birth certificate is issued as proof of the registration of the birth. Information on the registration of births was collected in the household interview by asking whether children under five years of age had a birth certificate. If the interviewer was told that the child did not have a birth certificate, the interviewer probed further to ascertain whether the child's birth had been registered with the civil authority. One-half of children have a birth certificate and a total of two-thirds of children under age five are registered, although levels of registration vary greatly across the country, as shown in Table 2.12.

Table 2.12 Birth registration of children under age five

Percentage of de jure children under five years of age whose births are registered with the civil authorities, according to background characteristics, Cambodia 2005

Background characteristic	Percentage of children whose births are registered: Had a birth certificate	Did not have a birth certificate	Total registered	Number of children
Age				
<2	43.2	12.4	55.7	3,204
2-4	61.9	12.0	73.9	4,590
Sex				
Male	54.5	12.2	66.7	3,872
Female	53.9	12.2	66.1	3,921
Residence				
Urban	60.7	10.3	71.0	1,068
Rural	53.2	12.5	65.7	6,726
Province				
Banteay Mean Chey	52.2	18.6	70.7	339
Kampong Cham	61.8	10.0	71.8	975
Kampong Chhnang	54.7	14.2	68.9	313
Kampong Speu	48.4	7.7	56.1	466
Kampong Thom	63.1	6.6	69.6	390
Kandal	60.4	17.5	78.0	689
Kratie	57.6	12.7	70.3	195
Phnom Penh	60.6	6.3	66.8	590
Prey Veng	49.7	14.5	64.1	618
Pursat	37.5	18.1	55.6	218
Siem Reap	54.0	25.0	79.0	647
Svay Rieng	63.5	4.4	67.9	265
Takeo	56.2	5.1	61.2	506
Otdar Mean Chey	74.7	0.9	75.6	96
Battambang/Krong Pailin	48.5	14.5	63.0	523
Kampot/Krong Kep	48.2	9.3	57.5	381
Krong Preah Sihanouk/ Kaoh Kong	56.7	9.9	66.6	198
Preah Vihear/Steung Treng	30.7	7.3	38.0	212
Mondol Kiri/Rattanak Kiri	23.9	14.1	38.0	172
Wealth quintile				
Lowest	45.3	14.0	59.3	2,101
Second	51.8	12.6	64.4	1,743
Middle	52.3	12.5	64.8	1,384
Fourth	62.2	10.2	72.5	1,300
Highest	66.3	10.2	76.5	1,267
Total	54.2	12.2	66.4	7,793

UTILIZATION OF HEALTH SERVICES FOR ACCIDENT, ILLNESS, OR INJURY 3

When the NHS 1998 was undertaken, the Ministry of Health was beginning to implement a redesigned Health Coverage Plan created to improve the accessibility and quality of government health services. The major points of the new health care plan were to create a network of health centers throughout the country delivering the "Minimum Package of Activities" services. The data collected in the 1998 NHS was considered to be a baseline of health conditions in the country before implementation of the new health coverage plan. The 2000 CDHS data were used to provide a first-round analysis of health care delivery under the new plan; the 2005 CDHS provides an update to those findings.

Utilization of health services was assessed in the household questionnaire. The questions were asked to all households in the sample. First, information was collected to assess the prevalence of injuries and deaths due to accidents in the past year. Second, the respondent was asked if any household members suffered from any physical impairment. Third, the respondent was asked about the severity of illness or injury and the subsequent utilization of health services for all members of the household who had been ill or injured in the 30 days prior to the interview.

3.1 ACCIDENTAL DEATH OR INJURY

All households reported on whether any household member had suffered accidental injury or death in the past 12 months preceding the day of the household interview. If anyone had been injured, the cause of the injury was recorded. The respondent to the household questionnaire was further asked whether the accident victim was alive or dead, and if dead, whether the death was the result of the reported accident. The questions were designed in this order to definitively assess the cause of injury, and the cause of death, if a death was noted.

Frequency of Accidental Death or Injury

Accidental injuries and deaths in Cambodia were not common (Table 3.1). Two percent of the population had suffered an injury or death by accident in the past 12 months. Accidental injuries were much more common than accidental deaths; for every 1,000 people in the population, 18 suffered an injury and for every 1,000 people in the population, one person suffered an accidental death.

The percentage of the population injured in the past 12 months increases with age from 1.1 percent among children aged 0-9 years to a peak of 2.4 percent among adults aged 20-39 years. The percentage experiencing accidental injury decreases thereafter, to 2 percent among adults age 40 and above. The occurrence of accidental death does not vary by age. For all ages, only 0.1 percent or one out of one thousand persons died as the result of an accident.

Males were more than twice as likely as women to be injured in an accident. Overall, 2.7 percent of men were injured in an accident in the past 12 months, compared with 1.1 percent of women. Despite the differences of accidental injuries by sex, men and women perished in accidents at the same rate (0.1 percent). While there were no substantial differences in accidental injuries by urban/rural residence, there are differences across provinces. The highest percentage of accidental injury was reported in Kampong Thom, with 4.4 percent of the household population experiencing an injury in the previous 12 months. The lowest percentage of accidental injury was in Otdar Mean Chey and Krong Preah Sihanouk/Kaoh Kong (both 0.7 percent). While Otdar Mean Chey has a low percentage of injuries, it has the highest percentage of accidental deaths (0.7 percent); otherwise, the percentage of accidental death ranges between 0.1 and 0.2 percent across provinces.

Table 3.1 Injury or death in an accident

Percentage of the de facto household population injured or killed in an accident in the past 12 months, according to background characteristics, Cambodia 2005

Background characteristic	Result of accident		Total injured or killed	Total number of household members
	Injured	Killed		
Age group				
0-9	1.1	0.1	1.2	16,009
10-19	1.6	0.0	1.7	17,517
20-39	2.4	0.1	2.5	17,755
40-59	2.1	0.1	2.3	11,067
60+	1.9	0.1	2.1	4,545
Sex				
Male	2.7	0.1	2.8	31,347
Female	1.1	0.1	1.2	35,547
Residence				
Urban	1.6	0.1	1.7	10,348
Rural	1.9	0.1	2.0	56,546
Province				
Banteay Mean Chey	2.3	0.1	2.4	2,686
Kampong Cham	2.3	0.2	2.5	8,729
Kampong Chhnang	2.8	0.2	3.0	2,408
Kampong Speu	2.3	0.0	2.3	3,725
Kampong Thom	4.4	0.2	4.6	3,321
Kandal	1.6	0.2	1.8	6,616
Kratie	1.9	0.1	2.0	1,367
Phnom Penh	1.4	0.1	1.5	6,071
Prey Veng	1.2	0.1	1.2	5,367
Pursat	1.7	0.1	1.8	2,030
Siem Reap	1.2	0.2	1.4	4,624
Svay Rieng	1.7	0.0	1.7	2,679
Takeo	2.1	0.0	2.1	4,722
Otdar Mean Chey	0.7	0.7	1.4	722
Battambang/Krong Pailin	1.2	0.2	1.4	4,654
Kampot/Krong Kep	0.8	0.1	0.9	3,400
Krong Preah Sihanouk/ Kaoh Kong	0.7	0.0	0.8	1,545
Preah Vihear/Steung Treng	2.6	0.0	2.6	1,285
Mondol Kiri/Rattanak Kiri	1.2	0.0	1.2	943
Total	1.8	0.1	1.9	66,894

Type of Accident

Originally the question about the type of accident was created to assess the impact of landmines on the population. However, due to the large increase in the use of motorized vehicles in Cambodia, data on prevalence of road accidents was also included in the CDHS. Table 3.2 shows that road accidents account for the greatest proportion of accidental injuries and deaths. Forty-six percent of those who had been injured or killed in the previous 12 months were as a result of a road accident. Fourteen percent of injuries/deaths were the result of a fall, and 4 percent were the result of an animal bite. Four percent of injuries/deaths were the result of some form of violence, and an additional 1 percent from gun shot. Fatalities due to landmines are decreasing in relevance as a threat to safety, dropping from 3 percent of cases in the 2000 CDHS to the current level of 0.7 percent of all injuries/deaths. Twenty-six percent of injuries/deaths were from unknown causes.

Table 3.2 Injury and death in an accident by type of accident

Percent distribution of the de facto household population who were injured or killed in an accident in the past 12 months by type of accident, according to background characteristics, Cambodia 2005

Background characteristic	Type of accident											Total	Number of persons injured/ killed
	Landmine/ unexploded bomb	Gun shot	Road accident	Severe burning	Snake/ animal bite	Fall from tree/ building	Drown-ing	Poisoning (chemical)	Violence	Other	Don't know		
Age group													
0-9	0.1	0.6	31.5	3.1	9.9	21.4	0.9	1.1	2.9	26.1	2.4	100.0	195
10-19	0.3	1.8	34.3	0.8	5.5	22.9	1.1	1.1	2.9	28.7	0.6	100.0	291
20-39	0.8	1.5	55.5	1.4	2.4	8.1	0.1	0.0	5.9	24.3	0.0	100.0	452
40-59	0.1	0.5	56.4	3.1	3.7	8.5	1.0	0.7	3.5	22.4	0.1	100.0	249
60+	3.7	4.5	39.0	0.0	1.2	18.6	1.0	1.1	0.0	30.9	0.0	100.0	95
Sex													
Male	0.4	1.9	48.3	1.3	4.6	13.0	0.2	0.6	4.6	24.9	0.2	100.0	873
Female	1.3	0.4	41.1	2.6	3.9	16.6	1.6	0.7	2.1	28.6	1.1	100.0	426
Residence													
Urban	0.3	1.7	65.4	1.9	3.5	7.2	0.0	1.2	2.4	15.9	0.4	100.0	171
Rural	0.7	1.4	42.9	1.7	4.5	15.2	0.8	0.5	4.0	27.7	0.5	100.0	1,127
Province													
Banteay Mean Chey	0.0	0.0	56.8	0.0	5.3	16.2	1.5	1.5	0.0	18.7	0.0	100.0	63
Kampong Cham	1.3	1.3	29.2	2.3	7.4	15.0	0.0	1.0	6.0	36.4	0.0	100.0	215
Kampong Chhnang	0.0	11.5	39.8	0.0	6.4	17.5	0.0	0.0	7.9	16.8	0.0	100.0	73
Kampong Speu	0.0	0.0	41.6	2.6	1.4	10.5	0.0	2.4	2.4	37.8	1.3	100.0	86
Kampong Thom	1.5	0.0	32.6	0.0	3.3	23.5	0.0	0.6	0.7	37.8	0.0	100.0	153
Kandal	0.0	0.8	41.0	3.5	4.8	13.0	0.0	0.0	2.8	30.7	3.3	100.0	118
Kratie	2.9	0.0	53.7	2.8	4.9	7.6	0.8	0.0	0.0	27.3	0.0	100.0	27
Phnom Penh	0.0	0.0	85.7	1.8	0.0	1.7	1.7	0.0	5.9	3.2	0.0	100.0	91
Prey Veng	(0.0)	(0.0)	(58.8)	(0.0)	(0.0)	(5.3)	(2.8)	(0.0)	(2.8)	(30.3)	(0.0)	100.0	66
Pursat	0.0	0.0	43.1	1.0	2.9	27.7	0.0	0.0	2.0	21.3	2.0	100.0	36
Siem Reap	0.0	1.4	66.3	0.0	7.5	2.1	1.9	0.0	4.0	16.8	0.0	100.0	65
Svay Rieng	1.8	2.1	59.5	5.5	3.7	14.9	1.6	0.0	1.8	9.2	0.0	100.0	46
Takeo	0.0	0.0	44.4	4.1	0.5	18.3	0.0	0.0	9.7	23.0	0.0	100.0	100
Otdar Mean Chey	18.1	5.7	9.7	1.3	4.3	9.3	0.0	0.0	1.3	48.1	2.2	100.0	10
Battambang/ Krong Pailin	0.0	4.0	56.7	0.0	4.1	14.2	0.0	3.3	1.9	15.7	0.0	100.0	64
Kampot/Krong Kep	(0.0)	(0.0)	(44.9)	(0.0)	(3.4)	(14.0)	(3.6)	(0.0)	(0.0)	(34.1)	(0.0)	100.0	30
Krong Preah Sihanouk/ Kaoh Kong	*	*	*	*	*	*	*	*	*	*	*	100.0	12
Preah Vihear/ Steung Treng	0.0	1.3	40.3	1.0	17.0	19.9	2.3	0.0	1.1	17.2	0.0	100.0	33
Mondol Kiri/ Rattanak Kiri	0.0	9.9	50.8	2.2	9.6	5.4	0.0	0.0	0.0	22.1	0.0	100.0	11
Total	0.7	1.4	45.9	1.7	4.4	14.2	0.7	0.6	3.8	26.1	0.5	100.0	1,298

Note: Total includes 16 people for whom information on age is not available. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Cause of injury/death varies by age, but road accidents are the most commonly cited source of injury/death for people of all ages, especially for those age 20-59. Animal bites account for ten percent of injuries among children aged 0-9, declining as a cause of injury as the population ages. Gunshots and landmines account for a higher percentage of injuries/deaths (5 and 4 percent, respectively) among people age 60 and above than for any other age group. Unspecified violence accounts for a greater percentage of injury/death (6 percent) among people age 20-39 as compared with people of other ages.

There were other significant differences in accidental injuries and deaths in the last 12 months by sex, urban/rural residence, and province. Men were more likely than women to be injured or killed in a road accident (48 percent versus 41 percent), as a result of unspecified violence (5 percent versus 2 percent), or by gunshot (2 percent versus less than 1 percent). Not surprisingly, road accidents account for a higher percentage of injuries/deaths in urban areas (65 percent) than in the rural areas (43 percent). Falls account for a higher proportion of accidents in rural areas than in urban areas (15 percent versus 7 percent). The distribution of causes of injuries/deaths by province should be analyzed with caution due to small sample sizes in selected provinces.

Table 3.3 Physical impairment

Percentage of the de facto household population physically impaired and percent distribution of the impaired de facto household population by cause of impairment, according background characteristics, Cambodia 2005

Background characteristic	Physically impaired	Number of household members	Cause of impairment						Total	Number of impaired persons
			Birth	Illness	Landmine	Gun	Road accident	Other accident		
Age group										
0-9	0.7	16,009	47.8	20.9	0.1	2.7	5.2	23.3	100.0	114
10-19	1.6	17,517	39.7	28.1	0.7	2.0	4.7	24.9	100.0	276
20-39	2.1	17,755	18.1	29.5	10.3	7.7	8.3	26.1	100.0	375
40-59	3.9	11,067	8.8	28.9	22.7	15.6	7.8	16.2	100.0	431
60+	5.3	4,545	3.8	59.5	3.9	6.9	6.0	19.9	100.0	243
Sex										
Male	2.9	31,347	15.5	26.5	15.1	12.3	7.1	23.6	100.0	903
Female	1.5	35,547	26.0	45.2	2.1	1.9	6.4	18.3	100.0	536
Residence										
Urban	1.8	10,348	17.7	36.1	10.1	5.0	9.8	21.3	100.0	189
Rural	2.2	56,546	19.7	33.0	10.3	9.0	6.4	21.7	100.0	1,250
Province										
Banteay Mean Chey	3.2	2,686	17.1	33.8	12.8	11.7	6.9	17.8	100.0	86
Kampong Cham	1.3	8,729	(25.6)	(36.6)	(2.4)	(7.7)	(5.1)	(22.7)	100.0	114
Kampong Chhnang	3.6	2,408	15.6	27.6	6.1	13.0	7.6	30.2	100.0	86
Kampong Speu	2.6	3,725	11.1	28.5	14.4	4.6	9.0	32.3	100.0	97
Kampong Thom	3.1	3,321	18.3	20.4	4.4	9.3	8.5	39.0	100.0	104
Kandal	1.5	6,616	15.8	43.2	11.6	0.0	5.5	23.8	100.0	98
Kratie	1.3	1,367	(14.2)	(39.1)	(10.7)	(6.7)	(6.5)	(22.8)	100.0	18
Phnom Penh	1.6	6,071	12.1	38.2	7.5	8.8	13.3	20.2	100.0	100
Prey Veng	2.2	5,367	21.6	50.5	3.4	7.1	7.2	10.1	100.0	118
Pursat	2.9	2,030	19.6	33.5	13.2	1.7	3.0	29.0	100.0	59
Siem Reap	2.4	4,624	32.2	10.1	16.7	19.1	7.2	14.7	100.0	113
Svay Rieng	2.1	2,679	26.6	33.4	7.3	9.4	6.9	16.3	100.0	56
Takeo	3.1	4,722	21.6	38.2	4.9	10.1	4.9	20.3	100.0	148
Otdar Mean Chey	2.9	722	10.5	18.3	39.5	8.6	4.7	18.4	100.0	21
Battambang/Krong Pailin	2.2	4,654	15.7	45.1	20.4	4.0	2.5	12.4	100.0	105
Kampot/Krong Kep	1.3	3,400	(22.6)	(29.3)	(12.2)	(8.5)	(7.8)	(19.6)	100.0	44
Krong Preah Sihanouk/ Kaoh Kong	1.6	1,545	20.9	21.2	15.2	8.5	11.6	22.5	100.0	25
Preah Vihear/Steung Treng	3.0	1,285	16.3	34.6	21.2	7.4	6.5	14.1	100.0	39
Mondol Kiri/Rattanak Kiri	1.2	943	(18.1)	(22.9)	(5.7)	(15.4)	(6.7)	(31.2)	100.0	11
Total	2.2	66,894	19.4	33.4	10.3	8.4	6.8	21.6	100.0	1,439

Note: Figures in parentheses are based on 25-49 unweighted cases.

3.2 PHYSICAL IMPAIRMENT

Questions on physical impairment include inquiring if any living household members were physically impaired, and if so what was the cause. In Cambodia, 2 percent of the population has a physical impairment (Table 3.3). Physical impairments increases with age. Persons aged 60 years and older are more likely than younger persons to have physical impairments (5 percent compared with 4 percent or less). Males are more likely (3 percent) to be impaired physically than women (1.5 percent). There are minor differences in physical impairments by urban/rural residence (1.8 and 2.2 percent respectively), although there are differences by province. The province with the highest percent of the population with physical impairments was Kampong Chhnang (4 percent). The provinces with the lowest prevalence of physical impairments (1.2-1.3 percent) were Kampong Cham, Kratie, Kampot/Krong Kep, and Mondol Kiri/Rattanak Kiri.

Table 3.3 also shows the cause of physical impairments in Cambodia. The most common cause of impairment were illness (33 percent). Other causes of impairments were due to unspecified accidents (22 percent) and birth defects (19 percent).

The causes of impairments are presented by age, sex, residence, and province. The cause of impairment varied significantly by age. Impairments at birth were most likely to be reported for children age 0-9 years (48 percent). On the other hand, other causes of impairment increased with age. For example, the percentage of the population impaired due to illness increases from 21 percent for age 0-9 to 60 percent for age 60 and older. Landmines and gunshots mostly affected persons age 40-59. Impairments caused by road accidents and other accidents varies less by age than by other causes of impairment.

The cause of impairment varies by sex, residence, and province. Men were much more likely than women to have been impaired by landmines and gunshot accidents. While 15 percent of men were impaired by a landmine, only 2 percent of women suffered a similar fate. Twelve percent of men were impaired by a gunshot compared with 2 percent of women. There were less striking differences by rural/urban residence in causes of impairments. As in Table 3.2, the interpretation of the causes of physical impairment by province in Table 3.3 is complicated by the small number of cases in some provinces.

3.3 Prevalence and Severity of Illness or Injury

All households were asked if any members were sick or injured at any time in the 30 days before the interview. If any members were sick, their names were recorded to ask specifically about their conditions in the questions that followed. The household questionnaire allotted space for information to be recorded for up to three household members. Interviewers were instructed to use extra questionnaires to record the information on all household members who were ill or injured. The respondent was asked to judge the illness or injury as slight, moderate, or severe. Finally questions were asked as to whether the ill or injured household member sought care, where they sought care, how much they spent on transport, and how much they spent on treatment. These questions were repeated in order to collect information on the patterns of health-care-seeking behavior. For example, a man might first seek treatment from a Kru Khmer traditional healer, but later go to a health clinic if the illness continues. Up to three health-seeking attempts were recorded in the questionnaire for each ill or injured person.

Sixteen percent of household members were ill in the 30 days prior to the interview (Table 3.4). However, this percentage may under-represent the actual prevalence of morbidity and injury for two reasons. The questions were asked only about living household members at the time of the interview. Therefore, the recorded episodes of illness and injury exclude any cases that ended in the death of a household member in the 30 days prior to the interview. Furthermore, the responses are based on the 30 day recall of one respondent in the household. That respondent might not have been aware of all the illnesses or injuries that had occurred within the household. It is likely that illnesses or injuries that occurred at the beginning of the 30 day period or those that were of mild severity were forgotten and not reported.

Nine-tenths of all illnesses or injuries were slight or moderate in severity. Only 2 percent of the household members experienced serious illness or injury, with those 40 years and older suffering from the most illnesses and injuries. The highest percentage of illness or injury was found among persons age 60 years and older; 10 percent had slight illness or injury, 15 percent had moderate illness or injury, and 5 percent reported serious illness or injury. There were only slight differences by sex and rural/urban residence. The highest percentage of illness or injury was found in Battambang/ Krong Pailin (33 percent). The province with the lowest percent of illness or injury is Krong Preah Sihanouk/Kaoh Kong (4 percent).

Table 3.4 Prevalence and severity of illness or injury in previous 30 days

Percent distribution of the de facto household population ill or injured in the previous 30 days by severity of illness or injury, according to background characteristics, Cambodia 2005

Background characteristic	Severity of illness or injury				Total	Number of household members
	Not ill or injured	Slight	Moderate	Serious		
Age group						
0-9	80.6	10.7	6.9	1.9	100.0	16,009
10-19	92.3	3.9	3.1	0.8	100.0	17,517
20-39	86.2	5.5	6.5	1.8	100.0	17,755
40-59	77.0	8.7	11.2	3.1	100.0	11,067
60+	69.5	10.4	15.3	4.8	100.0	4,545
Sex						
Male	85.5	6.4	6.2	1.9	100.0	31,347
Female	82.3	7.9	7.8	2.0	100.0	35,547
Residence						
Urban	87.7	5.9	5.0	1.5	100.0	10,348
Rural	83.1	7.4	7.4	2.1	100.0	56,546
Province						
Banteay Mean Chey	91.6	1.9	3.8	2.7	100.0	2,686
Kampong Cham	83.5	7.6	6.9	2.0	100.0	8,729
Kampong Chhnang	74.7	12.8	11.1	1.4	100.1	2,408
Kampong Speu	84.0	6.6	7.6	1.8	100.0	3,725
Kampong Thom	78.0	8.3	10.2	3.5	100.0	3,321
Kandal	87.2	5.1	5.0	2.7	100.0	6,616
Kratie	78.6	11.0	8.4	2.1	100.0	1,367
Phnom Penh	90.0	4.2	4.6	1.1	100.0	6,071
Prey Veng	82.4	7.6	7.5	2.5	100.0	5,367
Pursat	86.7	4.8	7.2	1.3	100.0	2,030
Siem Reap	91.3	2.7	5.0	1.1	100.0	4,624
Svay Rieng	84.2	6.9	8.1	0.8	100.0	2,679
Takeo	80.8	7.3	10.0	1.8	100.1	4,722
Otdar Mean Chey	82.0	13.1	4.3	0.6	100.0	722
Battambang/Krong Pailin	66.9	19.7	10.5	3.0	100.0	4,654
Kampot/Krong Kep	90.0	2.3	5.8	1.9	100.0	3,400
Krong Preah Sihanouk/Kaoh Kong	96.0	0.9	2.1	0.9	100.0	1,545
Preah Vihear/Steung Treng	76.7	12.1	8.2	3.0	100.0	1,285
Mondol Kiri/Rattanak Kiri	81.8	10.0	6.9	1.4	100.1	943
Total	83.8	7.2	7.0	2.0	100.0	66,894

3.4 TREATMENT SOUGHT FOR ILLNESS OR INJURY

Table 3.5 presents the percentage of the ill or injured population who sought treatment according to the number of times. The type of treatment recorded in these questions include, but was not limited to, care given by medically-trained professionals. For example, if a sick child was first given a remedy by a Kru Khmer traditional healer, this was recorded as the first treatment. If the parents later observed that the child was still ill and went to a shop in the market for medicine, this was recorded as the second treatment. If the drugs did not work and the parents took the child to a doctor at a private clinic, this was recorded as the third treatment.

Ninety-two percent of household members who were ill sought at least one treatment (Table 3.5). This continues the upward trend found in the NHS 1998 (86 percent) and the 2000 CDHS (89 percent). Twenty-seven percent of those ill or injured sought at least two treatments, and 10 percent sought at least three treatments. In general, there was a positive relationship between the severity of illness or injury and the number of times treatment is sought. Those persons with serious illnesses or injuries were more likely to seek treatment than those with moderate illnesses or injuries. These latter individuals were in turn were more likely to seek treatment than those with slight illnesses or injuries. For first time treatments, the percent seeking treatment was fairly similar (88, 94, and

96 percent respectively for slight, moderate, and serious illness or injuries) than for second treatment (23, 27, and 40 percent respectively). For instance, 10 percent of slight illness or injury were treated three times or more compared with 16 percent of those with a serious illness or injury. There were small differences in health-seeking behavior by sex, age, and urban/rural residence.

The province with the highest percentage of ill or injured persons seeking treatment is Battambang/Krong Pailin (98 percent), while the province with the lowest percentage is Mondol Kiri/Rattanak Kiri (76 percent).

Table 3.5 Percentage of ill or injured population who sought treatment

Percentage of household members who were ill or injured in the past 30 days who sought a first, second, and third treatment, according to background characteristics, Cambodia 2005

Background characteristic	Treatment for illness or injury			Total
	First treatment	Second treatment	Third treatment	
Severity of illness or injury				
Slight	87.9	23.1	9.8	4,803
Moderate	93.8	26.7	9.4	4,709
Serious	96.2	40.1	15.8	1,327
Age group				
0-9	93.4	21.9	6.8	3,114
10-19	91.8	28.4	12.2	1,351
20-39	91.3	28.8	11.2	2,449
40-59	90.5	30.0	11.6	2,552
60+	89.3	26.4	13.0	1,386
Sex				
Male	92.2	26.1	10.5	4,537
Female	91.0	27.2	10.3	6,314
Residence				
Urban	94.2	24.3	10.5	1,275
Rural	91.1	27.1	10.4	9,575
Province				
Banteay Mean Chey	91.6	11.4	2.4	228
Kampong Cham	88.6	30.3	10.5	1,441
Kampong Chhnang	94.6	30.4	12.9	610
Kampong Speu	90.3	17.6	4.2	595
Kampong Thom	87.4	26.1	11.4	730
Kandal	94.3	27.5	8.8	848
Kratie	88.2	37.9	16.0	293
Phnom Penh	96.0	16.6	4.2	607
Prey Veng	93.0	33.6	15.2	947
Pursat	88.4	16.4	2.6	270
Siem Reap	82.1	10.2	2.0	403
Svay Rieng	90.5	14.2	2.6	422
Takeo	89.7	21.7	5.4	909
Otdar Mean Chey	94.5	12.8	2.7	130
Battambang/Krong Pailin	98.2	42.4	22.9	1,544
Kampot/Krong Kep	95.5	33.9	14.2	339
Krong Preah Sihanouk/Kaoh Kong	95.4	22.3	1.2	61
Preah Vihear/Steung Treng	83.3	11.9	3.7	300
Mondol Kiri/Rattanak Kiri	75.8	9.5	0.7	173
Total	91.5	26.7	10.4	10,850

Note: Total includes 12 people for whom information on severity of illness is not available.

3.5 UTILIZATION OF HEALTH CARE FACILITIES

Information on the sector and location of health care providers was collected to determine where persons who were ill or injured went for treatment. The health care providers were distinguished by public sector, private sector, and non-medical sector. Descriptions of the different types of hospitals, clinics, pharmacies, and other health venues were explained to the interviewers. During data collection if the interviewer had difficulties distinguishing among the various types, then the team supervisor or field editor would ascertain the correct designation from local sources.

Table 3.6 presents the utilization of health services by type of residence (urban/rural), where small differences in the pattern of health care use can be observed. In general, the private sector was consistently the most popular, with the public sector as commonly used as the non-medical sector. Urban and rural residents seek a first, second, or third treatment in about equal proportion. Approximately nine in ten ill or injured people sought treatment, one in four went on for a second treatment, and one in ten went on for a third treatment.

Table 3.6 Percentage of ill or injured population who sought treatment

Percent distribution of household members who were ill or injured in the past 30 days by place of treatment, according to urban-rural residence, Cambodia 2005

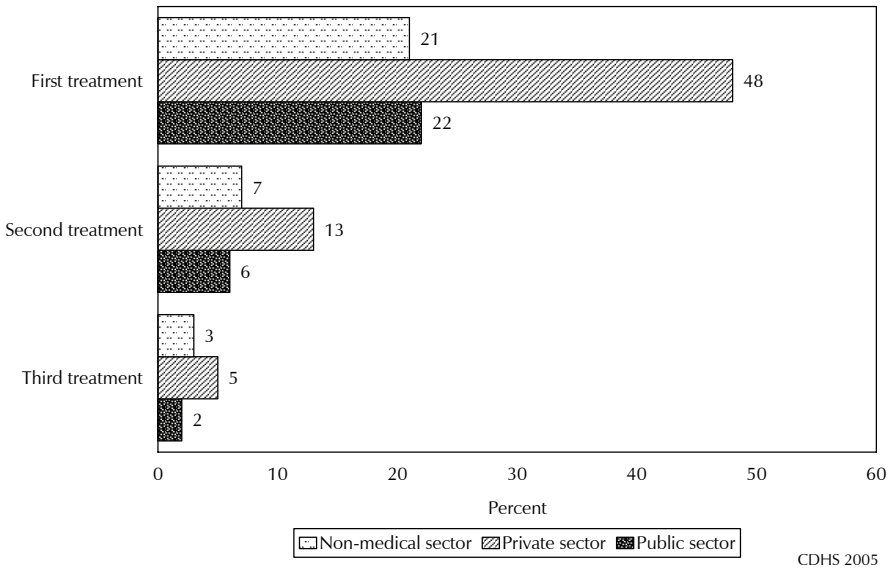
	Treatment								
	Urban			Rural			Total		
Place of treatment	First treatment	Second treatment	Third treatment	First treatment	Second treatment	Third treatment	First treatment	Second treatment	Third treatment
Did not seek treatment	5.8	75.7	89.5	8.9	72.9	89.6	8.5	73.3	89.6
Public sector	18.6	4.6	1.8	22.0	6.0	2.1	21.6	5.9	2.0
National hospital (PP)	4.1	1.3	0.3	2.1	0.7	0.1	2.4	0.8	0.2
Provincial hospital (RH)	4.2	0.9	0.4	2.4	0.6	0.2	2.6	0.6	0.2
District hospital (RH)	1.3	0.5	0.1	3.0	0.8	0.3	2.8	0.7	0.2
Health center	7.8	1.8	0.7	13.6	3.6	1.4	13.0	3.4	1.3
Health post	0.1	0.0	0.0	0.5	0.2	0.1	0.5	0.2	0.1
Outreach	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Other public	1.1	0.2	0.2	0.2	0.1	0.0	0.3	0.1	0.0
Private sector	59.9	15.1	6.3	46.7	13.1	5.0	48.2	13.3	5.2
Private hospital	1.8	0.6	0.0	0.6	0.1	0.1	0.8	0.2	0.1
Private clinic	14.8	4.2	1.7	6.3	2.3	0.6	7.3	2.5	0.8
Private pharmacy	25.1	5.8	3.1	6.6	2.3	1.0	8.7	2.7	1.3
Home/office of trained health worker/nurse	6.4	1.9	0.4	12.0	3.6	1.3	11.4	3.4	1.2
Visit of trained health worker/nurse	10.6	2.4	0.9	18.8	4.3	1.8	17.8	4.0	1.7
Other private medical	1.2	0.2	0.2	2.4	0.5	0.1	2.2	0.5	0.1
Non-medical sector	14.5	4.2	2.4	21.6	7.7	3.2	20.8	7.3	3.1
Shop/market	13.3	3.4	2.2	20.1	6.9	2.9	19.3	6.5	2.8
Kru khmer/magician	1.2	0.7	0.2	1.5	0.7	0.3	1.5	0.7	0.3
Monk/religious leader	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional birth attendant	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Other	1.2	0.3	0.1	0.8	0.2	0.1	0.8	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,275	1,275	1,275	9,575	9,575	9,575	10,850	10,850	10,850

PP = Phnom Penh
RH = Referral hospital

Within the public sector, health centers were most often used in both urban and rural areas. In fact, health centers in rural areas were twice as likely to be visited for first treatment than health centers in urban areas (14 percent compared with 8 percent). Within the private sector, private pharmacies were much more likely to be visited for first treatment in urban areas than in rural areas (25 percent compared with 7 percent), whereas trained health workers and nurses were more commonly sought out for first time treatment in rural areas than in urban areas (19 percent versus 11 percent). Within the nonmedical sector, the overwhelming choice for source of health care were shops or markets.

Figure 3.1 summarizes the findings in Table 3.6. The private sector is about twice as likely to be visited for all treatments. Public sector is as popular as the non-medical sector for first, second and third treatments.

Figure 3.1 **Percentage of Household Members Ill or Injured Seeking Treatment by Order of Treatment and Sector of Health Care**



3.6 COST FOR HEALTH CARE

Distribution of Cost for Health Care

For each ill or injured person, the respondent was asked to state the costs expended for transportation and treatment for each visit to a health care provider. These costs are reported only for living people who have been recently ill or injured, and does not include costs incurred for people who died in the 30 days prior to interview. Costs are presented in US dollars in Table 3.7. For all treatments, 22 percent of household members spent US $1.00 or less and 33 percent spent $1.00 to $4.00. Just under 4 percent of all household members spent $50-$99.00 for the transport to and treatment of illness or injury, while only 2.5 percent of all ill or injured persons spent $100.00 or more for transport to and treatment of illness or injury.

These expenditures vary by the type of spending. For transport, two out of three household members spent less than $1.00, 21 percent spent $1.00 to $4.00, and barely 6 percent spent $5.00 or more for transport. For health care, 56 percent spent up to $4.00, 15 percent spent between $5.00 and $9.00, and 11 percent spent between $10.00 and $19.00.

There are small variations according to the order of treatment. For the first through third treatments, 69 to 76 percent of all ill or injured persons spent less than $1.00 for transport. For health care, these proportions are less varied, between 29 and 32 percent.

Table 3.7 Distribution of cost for health care

Percent distribution of household members who were ill or injured in the past 30 days and sought treatment by amount of money spent for transport and healthcare, according to number of treatments, Cambodia 2005

Amount spent for transport and health care	Treatment for illness or injury											
	First treatment			Second treatment			Third treatment			All treatments		
	Transport	Health care	Total cost	Transport	Health care	Total cost	Transport	Health care	Total cost	Transport	Health care	Total cost
Monetary cost												
$0 - $1	68.7	28.8	25.4	70.2	32.0	29.4	75.5	32.2	29.8	67.0	25.1	22.3
$1 - $4	20.5	32.3	34.3	21.3	35.7	37.5	18.2	40.5	42.7	21.0	31.4	32.6
$5 - $9	3.3	14.8	15.6	3.0	12.6	13.2	2.5	11.9	11.9	3.7	15.3	15.9
$10 - $19	0.7	10.2	11.0	0.8	7.2	7.9	0.2	6.9	7.5	1.4	11.2	12.0
$20 - $49	0.4	8.2	9.0	0.3	6.5	7.2	0.7	4.2	4.9	0.6	9.7	10.6
$50 - $99	0.1	2.5	2.7	0.1	2.1	2.5	0.1	1.1	1.3	0.1	3.5	3.7
$100+	0.0	1.5	1.6	0.0	1.5	1.5	0.0	0.9	1.0	0.0	2.3	2.5
Nonmonetary cost												
In kind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Don't know/missing	6.3	1.6	0.4	4.3	2.4	0.8	2.8	2.3	0.9	6.1	1.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: All costs cited in US dollars. One US dollar = 4,000 Riels.

Expenditures for Health Care

Table 3.8 presents the mean cost of transport and treatment by the order of treatment and background characteristics. There is an inverse relationship between the cost and the order of treatment. As the number of treatments rise, the total cost for treatment decreases from $11.17 for the first treatment to $7.82 for the third treatment. The mean cost of transport does not follow a specific pattern; for all order of treatments the cost for transport is less than one dollar.

The mean cost of transport and health care varies according to the type of health sector, severity of illness or injury, age group, sex, residence, and province. Examining transport costs by type of health sector shows that the highest mean expenditure is for "other" type of treatment; this may include going to another country such as Thailand or Vietnam, or going to trained medical professionals with specialized services. Examining health care costs by type of health sector shows that the highest mean expenditure is for the private sector, with costs barely diminishing over treatment cycles ($13.97, $12.79, and $10.21 respectively). Public sector and "other" medical sector costs drop noticeably over the same treatment cycle. Interestingly, health care costs within the various health sectors have swapped positions from the 2000 CDHS to the 2005 CDHS. In the 2000 CDHS, the public and "other" sectors vied for top spots as most expensive, whereas in the 2005 CDHS, the private sector is consistently the most expensive treatment. Overall, however, costs have dropped considerably from the 2000 CDHS, with public sector costs dropping by half (from $31.90 overall to $15.52) and private sector costs dropping by 31 percent (from $27.10 overall to $18.62). The "other" sector has dropped the most significantly, almost five-fold, from $55.90 in the 2000 CDHS to $10.94 in the 2005 CDHS.

For health care costs, the most expensive total cost was for treatment within the private sector ($17.98), while the lowest was for those who sought care within the non-medical sector ($5.76). This is true for all orders of treatment.

Table 3.8 Expenditures for health care

Mean expenditures in United States dollars for transport and health care by household members who were ill or injured in the past 30 days, by order of treatments, according to background characteristics, Cambodia 2005

	Treatment											
	First treatment			Second treatment			Third treatment			Total		
Background characteristic	Transport	Health care	Total	Transport	Health care	Total	Transport	Health care	Total	Transport	Health care	Total
Type of health sector												
Public	1.76	10.81	12.23	1.90	7.90	9.48	1.29	3.70	4.81	2.36	13.59	15.52
Private	0.58	13.97	14.36	0.64	12.79	13.22	0.54	10.21	10.59	0.89	17.98	18.62
Nonmedical	0.26	2.52	2.75	0.33	3.74	4.03	0.56	4.71	5.27	0.54	5.76	6.25
Other	3.10	7.27	10.19	1.85	3.07	4.90	2.31	0.43	2.74	3.37	7.76	10.94
Severity of illness or injury												
Slight	0.23	2.58	2.77	0.17	1.54	1.69	0.14	1.34	1.48	0.29	3.13	3.38
Moderate	0.91	11.72	12.38	0.69	8.87	9.36	0.60	7.28	7.81	1.17	14.94	15.82
Serious	2.31	33.28	34.80	2.55	26.17	27.91	2.17	21.22	22.10	3.71	47.17	50.03
Age group												
0-9	0.60	4.65	5.16	0.50	3.97	4.39	0.57	2.26	2.79	0.76	5.72	6.38
10-19	0.86	8.40	9.16	0.87	8.11	8.95	0.73	9.52	10.04	1.23	12.17	13.27
20-39	0.92	12.32	13.02	0.72	12.38	12.75	0.78	8.19	8.85	1.24	17.13	18.10
40-59	0.98	14.10	14.83	1.30	10.51	11.60	0.89	9.76	10.49	1.54	18.76	20.00
60+	0.74	16.73	17.11	0.70	10.87	11.37	0.38	5.38	5.69	1.00	20.70	21.25
Sex												
Male	0.82	10.82	11.44	0.72	9.61	10.14	0.59	5.30	5.77	1.09	14.09	14.95
Female	0.81	10.33	10.97	0.92	8.84	9.59	0.78	8.65	9.33	1.18	13.91	14.87
Residence												
Urban	0.67	17.35	17.77	0.78	19.32	19.65	0.58	6.28	6.58	0.94	22.89	23.56
Rural	0.83	9.60	10.26	0.85	7.94	8.64	0.72	7.36	7.99	1.17	12.76	13.71
Province												
Banteay Mean Chey	1.16	19.25	20.04	(3.12)	(17.27)	(18.03)	*	*	*	1.59	21.62	22.79
Kampong Cham	0.74	9.28	9.85	0.64	4.08	4.64	0.30	3.37	3.67	0.99	11.08	11.87
Kampong Chhnang	0.35	4.54	4.84	0.52	4.29	4.72	0.69	3.22	3.81	0.61	6.33	6.88
Kampong Speu	0.69	9.17	9.74	0.85	9.50	10.13	*	*	*	0.92	12.16	12.94
Kampong Thom	0.93	12.14	12.99	0.72	11.03	11.69	1.20	10.78	11.96	1.30	16.88	18.06
Kandal	0.91	9.97	10.78	1.09	14.53	15.62	(1.31)	(18.23)	(19.55)	1.36	15.91	17.19
Kratie	0.70	5.27	5.88	0.44	3.67	4.08	0.65	1.91	2.54	1.01	7.22	8.10
Phnom Penh	0.80	22.28	22.71	0.91	21.46	21.12	*	*	*	1.09	26.45	27.16
Prey Veng	0.87	11.87	12.63	0.76	8.86	9.56	0.38	4.90	5.23	1.21	15.85	16.93
Pursat	1.60	16.79	18.30	4.23	18.34	22.57	*	*	*	2.42	20.48	22.80
Siem Reap	1.49	27.29	28.67	(2.35)	(40.49)	(42.83)	*	*	*	1.80	32.44	34.11
Svay Rieng	0.57	7.91	8.48	1.51	8.10	9.61	*	*	*	0.82	9.24	10.06
Takeo	1.51	7.08	7.45	1.47	8.45	8.89	(1.45)	(16.06)	(15.32)	1.95	9.70	10.24
Otdar Mean Chey	2.19	4.74	5.19	5.91	7.90	9.79	*	*	*	3.22	5.82	6.56
Battambang/Krong Pailin	0.40	7.76	8.13	0.34	8.34	8.62	0.41	5.62	6.02	0.64	12.64	13.25
Kampot/Krong Kep	0.71	6.53	7.22	0.87	5.59	6.35	(0.55)	(4.57)	(5.04)	1.10	9.15	10.22
Krong Preah Sihanouk/ Kaoh Kong	3.02	35.39	37.09	(4.11)	(34.86)	(38.88)	*	*	*	4.27	43.61	46.60
Preah Vihear/ Steung Treng	0.59	4.81	5.32	1.08	4.00	4.99	(0.76)	(2.56)	(3.31)	0.77	5.48	6.17
Mondol Kiri/ Rattanak Kiri	1.97	8.82	10.73	2.84	12.22	14.86	*	*	*	2.35	10.50	12.77
Total	0.81	10.54	11.17	0.84	9.15	9.82	0.70	7.23	7.82	1.14	13.99	14.90

Note: Table includes only persons who paid cash or who reported no cost. All costs cited in US dollars. One US dollar = 4,000 Riels. Total includes 12 persons for whom information on severity of illness is not available. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

In general, health care costs rose significantly by severity of illness or injury. The total mean costs of treatment increased from $3.13 for slight illness or injury to $47.17 for serious conditions. This follows the same trend established in the 2000 CDHS, though as noted above, overall costs have decreased since then ($4.60 for slight illness or injury to $61.70 for serious illnesses in the 2000 CDHS).

Total health care costs rise by the patient's age, ranging from $5.72 for children age 0-9 to $20.70 for people age 60 years and older. Health care expenditures by sex have become more equitable since the last CDHS, though spending patterns by sex have changed roles. In 2000, men spent less than women for total health care ($18.40 compared with $20.20), whereas in 2005, men spent more than women on total health care ($14.09 compared with $13.91).

Total health care costs have remained more expensive in the urban areas than the rural areas since the 2000 CDHS, with the cost in urban areas staying the same (from $22.70 in 2000 compared with $22.89 in 2005). The cost in rural areas dropped by a third (from $18.90 in 2000 compared with $12.76 in 2005). On the other hand, transport costs have made an about face. In the 2000 CDHS, total transport costs were more than twice as expensive in urban areas than in rural areas ($3.20 compared with $1.20 respectively), whereas transport costs now are less in urban areas than in rural areas ($0.94 in versus $1.17 respectively).

Health care expenditures vary greatly in Cambodia's provinces. The most expensive cost for health care is in Krong Preah Sihanouk/Kaoh Kong ($43.61) and the least expensive is in Preah Vihear/Steung Treng ($5.48). As Kaoh Kong has limited services and is located on the border with Thailand, it is possible that the high health expenditures reflect care sought across the border.

As the health care system in Cambodia is a largely a fee-based system, it is important to know the source of the money used to pay for health care. One goal of the health care system is to have appropriate funding mechanisms for the population to acquire health care without deepening poverty. Table 3.9 shows that 45 percent of the money spent on health care came from wages/pocket money and 30 percent from savings. This is drastically different from the situation during the 2000 CDHS, where barely 16 percent of the money spent on health care came from wages/pocket money and 54 percent came from savings.

There are small differences in the source of money spent on health care by type of health sector. In all sectors, wages/pocket money is the most common source of funding (42 percent to 65 percent), followed by savings (20 percent to 32 percent). Borrowed money with interest is the next most common source of funding for public and private sector health care (8 percent). The same is true for borrowed money without interest (6 percent). Overall, borrowed money has dropped as a total source of money since the 2000 CDHS. For example, in the 2000 CDHS, borrowed money (with interest) was cited 10.9 percent of the time, whereas in the 2005 CHDS it was cited just 7.4 percent of the time. A similar drop occurred with borrowed money (no interest), showing a drop from 8.6 percent in 2000 to 5.5 percent in 2005. Additionally, selling assets to obtain money to pay for health care dropped from 6.2 percent in 2000 to 2.7 percent in 2005. This would indicate that people are now better able to afford health care by their own means than before.

The source of money for treatment varies by the severity of illness or injury, though following the same trend established in the 2000 CDHS. Wages/pocket money and savings were the most common source of money for care for the slight illnesses. With severe illnesses, the source shift to borrowed money with interest (from 3 percent for slight illness to 18 percent for severe illness) as did borrowed money without interest (from 3 percent for slight illness to 9 percent for severe illness).

Table 3.9 Source of money spent on health care

Percent distribution of the source of expenditures for transport and health care according to background characteristics, Cambodia 2005

Background characteristic	Source of money for health care								Total	Number
	Wages/ pocket money	Gift from relative/ friend	Savings	Borrowed money (no interest)	Borrowed money (with interest)	Sold assets	Other	Missing		
Type of health sector										
Did not seek treatment	52.1	3.2	29.7	4.5	4.7	1.1	3.6	1.0	100.0	99
Public	43.3	5.8	31.6	6.3	7.9	3.2	1.6	0.4	100.0	1,557
Private	42.3	7.0	29.7	6.1	8.4	2.9	3.6	0.1	100.0	3,776
Nonmedical	52.1	4.8	30.9	3.3	4.6	1.9	2.3	0.2	100.0	1,559
Other	64.6	3.1	20.0	4.8	4.5	0.0	3.0	0.0	100.0	58
Severity of illness or injury										
Slight	55.9	4.5	29.6	2.6	3.3	1.3	2.5	0.3	100.0	2,895
Moderate	41.3	6.9	31.2	6.9	7.8	2.7	3.2	0.1	100.0	3,198
Serious	24.3	8.8	29.1	9.4	18.2	7.0	2.8	0.3	100.0	950
Cost oftransport/treatment										
$0 - $1	56.5	4.7	32.2	1.7	2.0	1.3	1.5	0.2	100.0	1,394
$1 - $4	51.5	4.7	32.5	3.5	3.5	1.1	2.8	0.4	100.0	2,276
$5 - $9	43.6	7.4	29.8	6.7	7.2	1.6	3.5	0.2	100.0	1,141
$10 - $19	35.5	6.7	30.5	9.2	11.6	2.6	3.8	0.0	100.0	908
$20 - $49	32.5	9.3	26.5	7.6	14.5	5.9	3.8	0.0	100.0	823
$50 - $99	24.7	8.4	26.2	12.7	18.1	9.0	0.9	0.0	100.0	300
$100+	23.2	6.7	16.0	10.5	24.8	15.5	3.4	0.0	100.0	203
Sex										
Male	45.6	4.9	30.5	5.7	8.1	2.6	2.3	0.3	100.0	2,849
Female	44.6	7.0	30.1	5.3	6.8	2.8	3.2	0.2	100.0	4,201
Residence										
Urban	61.0	5.4	21.0	4.6	4.8	1.1	1.6	0.5	100.0	864
Rural	42.8	6.3	31.6	5.6	7.7	2.9	3.0	0.2	100.0	6,186
Province										
Banteay Mean Chey	12.1	3.7	45.8	6.6	27.2	2.5	1.5	0.5	100.0	188
Kampong Cham	39.1	7.8	39.6	5.7	6.6	1.2	0.0	0.0	100.0	935
Kampong Chhnang	37.4	7.5	44.6	3.1	2.3	2.5	2.0	0.6	100.0	364
Kampong Speu	40.0	5.9	29.7	5.1	10.2	5.3	3.2	0.5	100.0	434
Kampong Thom	45.7	6.5	30.1	5.7	6.2	4.0	1.2	0.5	100.0	417
Kandal	51.3	13.3	22.7	4.8	4.1	2.3	1.5	0.0	100.0	621
Kratie	76.1	2.7	7.7	2.2	1.9	0.3	8.9	0.3	100.0	173
Phnom Penh	75.2	6.4	7.9	3.3	5.2	0.3	1.2	0.5	100.0	495
Prey Veng	39.9	10.4	12.0	4.5	9.6	4.9	18.7	0.0	100.0	703
Pursat	23.4	3.4	48.6	8.3	13.2	3.0	0.1	0.0	100.0	193
Siem Reap	70.4	3.6	10.5	6.7	6.4	1.3	1.1	0.0	100.0	287
Svay Rieng	33.4	1.8	40.2	13.4	8.0	2.7	0.0	0.6	100.0	311
Takeo	37.9	3.6	44.9	5.7	5.6	2.2	0.2	0.0	100.0	599
Otdar Mean Chey	81.0	3.1	1.4	2.7	10.9	0.6	0.3	0.0	100.0	93
Battambang/Krong Pailin	70.6	3.6	6.4	5.4	9.9	4.0	0.0	0.2	100.0	673
Kampot/Krong Kep	1.6	0.6	86.4	2.8	3.7	4.0	0.8	0.0	100.0	256
Krong Preah Sihanouk/ Kaoh Kong	27.7	6.4	55.9	6.0	2.9	1.1	0.0	0.0	100.0	52
Preah Vihear/Steung Treng	20.5	2.5	61.2	6.1	6.7	2.4	0.7	0.0	100.0	162
Mondol Kiri/Rattanak Kiri	2.5	0.6	77.1	11.0	5.0	2.2	0.4	1.2	100.0	95
Total	45.0	6.1	30.3	5.5	7.4	2.7	2.8	0.2	100.0	7,050

Note: Total includes 7 persons for whom information on severity of illness is not available and 5 persons for whom information on cost of treatment and transport is not available.

The monetary costs of health care treatment shows a similar pattern as to those described above. Wages/pocket money and savings were the most important sources of money for health costs under $99.00, with the percentage from these two sources decreasing as the costs increased. Borrowed money (with interest) became the most important source of money for treatment costs of $100.00 or more, with fully 25 percent coming from this source.

There were no real differences in the source of money for health care costs by virtue of the patient's sex. Urban residents were more likely than rural residents to use wages or pocket money for health care (61 percent compared with 43 percent). On the other hand, rural residents were more likely than urban residents to pay the health care with their savings (32 percent compared with 21 percent).

Large differences were found in the sources of money for health care costs by province. Patients in Otdar Mean Chey were the most likely to use their wages or pocket money to pay for their health care (81 percent) and the least likely to use their savings (1.4 percent). Seam Reap was not far behind with 70 percent of health care costs being covered from wages and pocket money and 11 percent covered from savings. This is vastly improved from the 2000 CDHS, when these combined provinces spent only devoted 3.1 of their wages and pocket money towards health care costs yet 63 percent of their savings.

Conversely, Kampot/Krong Kep had the highest reliance on savings for health care spending (86 percent) and the lowest reliance on wages/pocket money (1.6 percent). Mondol Kiri/Rattanak Kiri followed closely with a 77 percent reliance on savings and a 2.5 percent reliance on wages/pocket money. As in 2000, patients with the highest reliance on borrowed money (with interest) for health care were in Banteay Mean Chey (27 percent). It is interesting to note that patients in Prey Veng relied on “other” sources of money (19 percent) for their health care costs much more significantly than any other province.

RESPONDENT CHARACTERISTICS 4

This chapter provides a demographic and socioeconomic profile of respondents interviewed in the 2005 CDHS. Such background information is essential to the interpretation of findings and for understanding the results presented later in the report. Basic characteristics collected include age, level of education, marital status, religion, and wealth status. Exposure to mass media and literacy status were examined, and detailed information was collected on employment status, occupation, and earnings. In addition, the CDHS collected data on knowledge and attitudes concerning tuberculosis and use of tobacco.

4.1 CHARACTERISTICS OF SURVEY RESPONDENTS

The background characteristics of the 16,823 women age 15-49 and the 6,731 men age 15-49 interviewed in the 2005 CDHS are shown in Table 4.1. This table is important in that it provides the background for interpreting findings presented later in the report.

The distribution of the population of women and men by age reflects recent Cambodian history. Note that 21 percent of women and 25 percent of men fall into the 15-19 age group while 18 percent of women and men fall into the 20-24 age group. Significantly smaller proportions of women and men are found in the older age groups. Twelve to 13 percent of women and men fall into the five-year age groups between 25 and 44, and 10 percent of women and 8 percent of men fall into the 45-49 age group. This unusual distribution of respondents into the youngest age groups is an indicator of the demographic shocks that occurred as a result of the Khmer Rouge regime (1975-1979). Fertility declined during these years, concomitant with higher than normal mortality due to national conflict. Between one and two million people are estimated to have been killed during the reign of the Khmer Rouge. These events are reflected in the smaller than expected proportions of women and men in the 25-29 and 30-34 age groups. After the conflict subsided, there was a baby boom, represented by the high proportion of women and men in the 15-19 and 20-24 age groups.

The majority of surveyed respondents (60 percent of women and 59 percent of men) are married or living together. The proportion not currently married varies by gender. Three in ten women has never married compared with four in ten men. On the other hand, women are much more likely to be divorced, separated, or widowed (8 percent) than men (2 percent).

Place of residence is another characteristic that determines access to services and exposure to information pertaining to reproductive health and other aspects of life. The majority of respondents reside in rural areas, with only 18 percent of women and 17 percent of men residing in urban areas. Thirteen percent of men and women live in Kampong Cham, and 11 percent live in the capital city of Phnom Penh. Cambodians are predominantly Buddhist, while 2 percent are Muslim and less than 1 percent are Christian.

The majority of Cambodians have some formal schooling. The education level of women has improved since the 2000 CDHS. The percentage of women who never attended school declined from 28 percent in the 2000 survey to 19 percent in 2005. At the same time, the percentage of women who attended any secondary school increased from 17 percent to 25 percent. However, Table 4.1 shows there are still notable differences in educational attainment of women and men. Twice as many women as men have never attended school (19 percent of women compared with 9 percent of women), and only a little over half as many women as men have attended secondary school (25 percent versus 43 percent).

Table 4.1 Background characteristics of respondents

Percent distribution of women and men by selected background characteristics, Cambodia 2005

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	21.4	3,601	3,646	24.7	1,662	1,710
20-24	18.1	3,045	3,020	18.2	1,222	1,182
25-29	12.2	2,051	2,104	12.3	830	848
30-34	12.4	2,082	2,035	12.0	811	754
35-39	13.2	2,229	2,247	12.7	858	862
40-44	12.6	2,112	2,080	11.8	793	786
45-49	10.1	1,703	1,691	8.2	555	589
Marital status						
Never married	31.8	5,352	5,186	38.7	2,606	2,576
Married	59.6	10,027	10,262	58.8	3,961	3,990
Living together	0.4	60	47	0.2	13	13
Divorced/separated	4.2	709	677	1.7	114	116
Widowed	4.0	675	651	0.6	37	36
Residence						
Urban	17.7	2,973	4,152	16.8	1,133	1,586
Rural	82.3	13,850	12,671	83.2	5,598	5,145
Province						
Banteay Mean Chey	3.9	650	779	3.8	253	294
Kampong Cham	12.6	2,116	791	12.9	870	330
Kampong Chhnang	3.3	556	804	3.5	234	345
Kampong Speu	5.2	870	923	5.2	348	366
Kampong Thom	4.8	799	899	4.9	331	362
Kandal	9.6	1,612	876	10.1	682	376
Kratie	2.0	331	854	1.9	128	317
Phnom Penh	11.3	1,896	1,105	11.0	737	423
Prey Veng	8.3	1,395	883	7.2	482	309
Pursat	2.9	480	817	3.0	202	341
Siem Reap	7.1	1,200	973	6.8	461	373
Svay Rieng	3.9	658	828	4.2	281	363
Takeo	6.5	1,102	888	7.3	491	406
Otdar Mean Chey	1.1	177	948	1.0	69	331
Battambang/Krong Pailin	7.4	1,247	1,036	6.8	456	373
Kampot/Krong Kep	5.0	839	873	4.8	321	336
Krong Preah Sihanouk/ Kaoh Kong	2.3	379	808	2.4	160	328
Preah Vihear/Steung Treng	1.8	301	873	1.7	116	347
Mondol Kiri/Rattanak Kiri	1.3	215	865	1.6	110	411
Education						
No schooling	19.4	3,270	3,772	9.0	606	712
Primary	55.8	9,389	9,131	48.4	3,261	3,347
Secondary and higher	24.8	4,165	3,920	42.6	2,865	2,672
Wealth quintile						
Lowest	17.9	3,017	3,261	16.0	1,078	1,213
Second	18.8	3,164	3,323	18.1	1,218	1,305
Middle	19.3	3,245	3,262	20.1	1,351	1,374
Fourth	19.7	3,308	3,115	21.8	1,468	1,339
Highest	24.3	4,089	3,862	24.0	1,616	1,500
Religion						
Buddhist	96.9	16,302	15,840	96.7	6,511	6,317
Muslim	1.7	281	315	1.5	102	116
Christian	0.6	99	104	0.9	58	49
Other/missing	0.8	141	564	0.9	61	249
Total	100.0	16,823	16,823	100.0	6,731	6,731

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

4.2 EDUCATIONAL ATTAINMENT AND LITERACY

Tables 4.2.1 and 4.2.2 present detailed distribution of educational attainment, according to background characteristics. The general pattern evident in Table 4.2.1 indicates a decrease in the proportion of women with no education from the oldest to the youngest cohorts. Women in the 40-44 age group are an exception to this trend; a higher percentage of women age 40-44 have never been to school compared with women in the 45-49 age group (35 versus 30 percent). This pattern probably occurred because women in the 40-44 age group reached school age at the time of the Khmer Rouge. Men in the 40-44 age group exhibit the same pattern. Women born during the reign of the Khmer Rouge (those currently age 25-29) are also somewhat more likely than the surrounding age groups to have no formal education. Men born during the time of the Khmer Rouge as well as those born just before (men currently age 25 to 34) are also more likely to have never attended school. The data presented in Tables 4.2.1 and 4.2.2 provide evidence of an increase in educational attainment among the youngest age cohort. For example, two in five women age 15-19 have attended some secondary school as compared with only one in five women age 20-24.

Urban women are more highly educated than rural women. One-third of urban women have attended some secondary school compared with 19 percent of rural women. Table 4.2.1 shows great variation in education across provinces. Mondol Kiri and Rattanak Kiri have an exceptionally low rate of school attendance among women. Three in five women have no formal education. By contrast, only one in ten women in Phnom Penh has never attended school. The median grade attained is highest in Phnom Penh, Kandal, and Takeo (5.9, 4.5 and 4.1, respectively).

Educational attainment rises dramatically with wealth quintile. Almost two in five women in the lowest quintile have no formal education (37 percent) compared with less than one in ten women in the highest wealth quintile (7 percent). The percentage of women who have attended some secondary school increases from 5 percent in the lowest wealth quintile to 41 percent in the highest. The pattern of variation in educational attainment by province and wealth among men is similar to that of women.

The 2005 CDHS assessed literacy levels among women who had never been to school or who had attended only the primary level by asking them to read all or part of a sentence in whatever language the respondent was familiar. Those who had attained middle school or above were assumed to be literate.

Table 4.2.1 Educational attainment: women

Percent distribution of women by highest level of schooling attained, and median grade completed, according to background characteristics, Cambodia 2005

Background characteristic	Highest level of schooling attended or completed						Total	Number of women	Median grade
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-19	7.9	33.7	15.5	40.6	1.5	0.9	100.0	3,601	5.6
20-24	16.0	46.5	9.6	20.7	4.1	3.1	100.0	3,045	3.9
25-29	21.5	48.8	6.1	20.1	2.2	1.3	100.0	2,051	3.3
30-34	16.4	53.0	7.1	20.8	1.9	0.8	100.0	2,082	3.1
35-39	20.9	50.3	6.0	20.9	1.3	0.5	100.0	2,229	3.0
40-44	35.3	54.8	2.9	6.2	0.5	0.3	100.0	2,112	1.3
45-49	29.7	58.7	3.4	7.4	0.7	0.1	100.0	1,703	1.7
Residence									
Urban	12.8	36.1	8.3	32.6	5.8	4.4	100.0	2,973	5.2
Rural	20.9	50.1	8.1	19.4	1.0	0.4	100.0	13,850	3.0
Province									
Banteay Mean Chey	24.7	51.4	7.5	15.5	0.9	0.0	100.0	650	2.5
Kampong Cham	22.6	51.4	8.8	16.3	0.7	0.3	100.0	2,116	2.8
Kampong Chhnang	12.8	55.9	8.1	21.3	1.8	0.1	100.0	556	3.2
Kampong Speu	21.4	52.3	7.3	17.7	0.8	0.5	100.0	870	2.8
Kampong Thom	16.1	57.3	6.0	18.4	2.2	0.1	100.0	799	2.9
Kandal	12.1	43.8	10.0	31.6	1.6	0.9	100.0	1,612	4.5
Kratie	20.9	48.6	6.7	22.0	1.7	0.1	100.0	331	2.8
Phnom Penh	9.5	33.0	9.2	35.2	6.8	6.3	100.0	1,896	5.9
Prey Veng	16.5	58.3	8.4	15.8	0.9	0.1	100.0	1,395	2.9
Pursat	24.6	47.8	8.0	18.3	0.7	0.6	100.0	480	2.7
Siem Reap	39.6	40.5	5.3	13.6	0.6	0.4	100.0	1,200	1.7
Svay Rieng	17.7	53.3	6.8	20.3	0.9	1.0	100.0	658	3.2
Takeo	14.4	45.2	9.0	29.6	1.4	0.5	100.0	1,102	4.1
Otdar Mean Chey	39.0	50.4	3.7	6.6	0.3	0.1	100.0	177	1.3
Battambang/Krong Pailin	15.1	47.1	9.6	24.5	2.4	1.3	100.0	1,247	3.8
Kampot/Krong Kep	14.3	50.8	11.0	22.3	1.3	0.3	100.0	839	3.5
Krong Preah Sihanouk/ Kaoh Kong	31.9	42.2	6.8	15.6	2.9	0.6	100.0	379	2.6
Preah Vihear/Steung Treng	24.0	59.5	5.0	10.9	0.4	0.2	100.0	301	1.7
Mondol Kiri/Rattanak Kiri	61.5	26.7	2.4	8.8	0.5	0.1	100.0	215	0.0
Wealth quintile									
Lowest	37.1	53.4	4.5	4.9	0.0	0.0	100.0	3,017	1.2
Second	26.6	56.2	7.3	9.6	0.2	0.1	100.0	3,164	2.2
Middle	19.2	55.1	8.5	16.6	0.5	0.1	100.0	3,245	3.0
Fourth	11.7	47.0	10.2	29.5	1.1	0.4	100.0	3,308	4.3
Highest	7.2	31.4	9.6	41.4	6.2	4.2	100.0	4,089	6.2
Total	19.4	47.6	8.2	21.8	1.9	1.1	100.0	16,823	3.3

[1] Completed grade 6 at the primary level
[2] Completed grade 12 at the secondary level

Table 4.2.2 Educational attainment: men

Percent distribution of men by highest level of schooling attained, and median grade completed, according to background characteristics, Cambodia 2005

Background characteristic	Highest level of schooling attended or completed						Total	Number of men	Median grade
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-19	3.3	31.9	15.0	47.8	1.4	0.6	100.0	1,662	6.0
20-24	7.0	34.8	9.5	36.4	6.0	6.3	100.0	1,222	5.9
25-29	9.7	44.9	6.2	29.6	5.4	4.2	100.0	830	4.6
30-34	11.1	36.4	9.7	34.0	4.9	3.9	100.0	811	5.3
35-39	7.6	38.2	6.3	39.6	4.2	4.1	100.0	858	5.7
40-44	19.0	43.5	5.4	25.1	3.9	3.1	100.0	793	3.5
45-49	14.1	59.1	7.8	15.6	1.2	2.2	100.0	555	2.8
Residence									
Urban	4.7	24.3	6.5	42.7	9.9	12.0	100.0	1,133	7.7
Rural	9.9	42.0	10.1	34.0	2.5	1.6	100.0	5,598	4.8
Province									
Banteay Mean Chey	9.4	51.0	9.2	28.0	2.1	0.3	100.0	253	3.9
Kampong Cham	13.4	42.8	12.8	27.4	2.8	0.8	100.0	870	4.4
Kampong Chhnang	3.9	50.9	8.3	32.9	3.3	0.6	100.0	234	4.5
Kampong Speu	7.4	42.1	12.2	34.8	1.7	1.7	100.0	348	5.1
Kampong Thom	8.1	56.3	7.2	27.1	1.1	0.2	100.0	331	3.4
Kandal	6.2	31.4	7.6	46.3	4.7	3.7	100.0	682	6.5
Kratie	12.6	50.9	8.8	26.5	0.9	0.3	100.0	128	3.7
Phnom Penh	3.0	17.2	6.8	42.4	11.9	18.6	100.0	737	8.3
Prey Veng	5.0	41.5	11.2	39.7	2.5	0.0	100.0	482	5.4
Pursat	13.7	43.7	11.0	28.0	2.9	0.7	100.0	202	4.3
Siem Reap	24.8	42.4	7.4	21.3	1.6	2.4	100.0	461	3.3
Svay Rieng	3.1	34.3	11.6	46.4	2.1	2.6	100.0	281	6.1
Takeo	5.2	29.1	7.5	53.6	3.9	0.7	100.0	491	6.5
Otdar Mean Chey	19.7	55.9	6.4	17.0	0.6	0.4	100.0	69	2.6
Battambang/Krong Pailin	4.9	42.9	11.6	35.1	2.9	2.7	100.0	456	5.2
Kampot/Krong Kep	5.4	46.0	11.9	33.0	3.0	0.6	100.0	321	4.9
Krong Preah Sihanouk/ Kaoh Kong	9.2	34.8	9.5	39.0	3.7	3.8	100.0	160	5.8
Preah Vihear/Steung Treng	14.4	51.1	6.0	23.0	5.0	0.4	100.0	116	3.1
Mondol Kiri/Rattanak Kiri	34.5	41.2	4.2	17.5	0.8	1.8	100.0	110	2.1
Wealth quintile									
Lowest	22.3	54.2	9.6	13.3	0.6	0.0	100.0	1,078	2.6
Second	12.4	53.1	11.0	22.4	0.9	0.1	100.0	1,218	3.6
Middle	8.2	44.9	9.7	35.3	1.3	0.6	100.0	1,351	4.7
Fourth	4.5	33.9	10.6	46.3	3.1	1.5	100.0	1,468	6.1
Highest	2.3	17.9	6.9	50.3	10.7	12.0	100.0	1,616	8.1
Total 15-49	9.0	39.0	9.4	35.4	3.8	3.3	100.0	6,731	5.2

[1] Completed grade 6 at the primary level
[2] Completed grade 12 at the secondary level

Table 4.3 shows that seven in ten women in Cambodia are literate. Literacy is associated with access to education. In general, the younger age groups are more likely to be literate than the older age groups. Illiteracy decreases from 38 percent among women age 45-49 to 16 percent among women age 15-19. However, illiteracy is higher among women in the 25-29 and 40-44 age groups than in the surrounding age cohorts. As seen in Table 4.2.1, these women were less likely to have attended school than the age cohorts before and after them.

Table 4.3 Literacy: women

Percent distribution of women by level of schooling attended and level of literacy, and percent literate, according to background characteristics, Cambodia 2005

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Number of women	Percentage literate[1]
Age										
15-19	43.0	30.0	11.3	15.5	0.1	0.0	0.1	100.0	3,601	84.3
20-24	27.9	29.2	13.4	29.4	0.0	0.0	0.1	100.0	3,045	70.4
25-29	23.6	27.6	12.1	36.6	0.0	0.1	0.0	100.0	2,051	63.3
30-34	23.5	31.8	13.5	31.1	0.0	0.0	0.2	100.0	2,082	68.7
35-39	22.7	31.2	16.1	29.8	0.0	0.1	0.0	100.0	2,229	70.1
40-44	7.0	28.8	19.2	44.4	0.1	0.3	0.1	100.0	2,112	55.1
45-49	8.3	32.7	20.3	37.9	0.1	0.6	0.0	100.0	1,703	61.3
Residence										
Urban	42.8	24.2	13.7	18.9	0.2	0.0	0.2	100.0	2,973	80.7
Rural	20.9	31.3	14.8	32.8	0.0	0.1	0.1	100.0	13,850	67.0
Province										
Banteay Mean Chey	16.4	39.1	9.3	35.1	0.0	0.1	0.0	100.0	650	64.8
Kampong Cham	17.2	40.5	9.1	32.8	0.0	0.3	0.1	100.0	2,116	66.8
Kampong Chhnang	23.2	39.4	9.9	26.9	0.1	0.0	0.5	100.0	556	72.5
Kampong Speu	19.1	32.4	8.0	40.4	0.0	0.1	0.0	100.0	870	59.5
Kampong Thom	20.7	40.9	10.6	27.8	0.0	0.0	0.0	100.0	799	72.2
Kandal	34.1	27.2	17.3	21.4	0.0	0.0	0.0	100.0	1,612	78.6
Kratie	23.8	41.0	3.5	30.6	0.6	0.6	0.0	100.0	331	68.3
Phnom Penh	48.3	26.0	12.7	12.5	0.3	0.0	0.2	100.0	1,896	87.0
Prey Veng	16.9	36.6	6.7	39.6	0.0	0.2	0.0	100.0	1,395	60.2
Pursat	19.6	7.2	37.3	35.8	0.0	0.1	0.0	100.0	480	64.1
Siem Reap	14.6	21.9	14.4	48.8	0.0	0.3	0.0	100.0	1,200	50.9
Svay Rieng	22.2	23.8	22.3	31.3	0.0	0.1	0.3	100.0	658	68.3
Takeo	31.4	29.2	17.6	21.5	0.0	0.2	0.0	100.0	1,102	78.2
Otdar Mean Chey	6.9	30.6	16.6	45.7	0.0	0.1	0.2	100.0	177	54.1
Battambang/Krong Pailin	28.2	22.9	31.4	17.5	0.0	0.0	0.0	100.0	1,247	82.5
Kampot/Krong Kep	23.9	25.5	16.0	34.5	0.0	0.0	0.1	100.0	839	65.4
Krong Preah Sihanouk/ Kaoh Kong	19.1	24.6	20.3	35.9	0.0	0.0	0.1	100.0	379	64.0
Preah Vihear/Steung Treng	11.5	31.9	5.6	50.8	0.1	0.0	0.0	100.0	301	49.1
Mondol Kiri/Rattanak Kiri	9.4	11.1	12.5	66.5	0.4	0.0	0.1	100.0	215	33.0
Wealth quintile										
Lowest	4.9	25.0	15.2	54.7	0.1	0.2	0.0	100.0	3,017	45.0
Second	10.0	30.0	16.1	43.8	0.0	0.1	0.1	100.0	3,164	56.1
Middle	17.2	34.5	15.8	32.3	0.0	0.2	0.1	100.0	3,245	67.5
Fourth	31.1	35.0	15.1	18.6	0.0	0.2	0.1	100.0	3,308	81.2
Highest	51.7	26.5	11.6	9.8	0.1	0.0	0.2	100.0	4,089	89.8
Total	24.8	30.1	14.6	30.3	0.1	0.1	0.1	100.0	16,823	69.4

[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence

Four in five women residing in urban areas are literate compared with two in three of their rural counterparts. Differences in literacy across provinces are marked, with literacy being highest among women in Phnom Penh (87 percent) and lowest in Mondol Kiri and Rattanak Kiri (33 percent). Literacy levels increase along with women's wealth status, doubling from 45 percent among women in the lowest wealth quintile to 90 percent among women in the highest wealth quintile.

There has been little change in the overall illiteracy rate since the 2000 CDHS (32 percent in 2000 compared with 30 percent in 2005). However, there has been a large decrease in illiteracy in the 15-19 age group from 25 percent to 16 percent, reflecting the increase in the level of educational attainment in this cohort since the previous survey (see Table 4.2.1).

4.3 ACCESS TO MASS MEDIA

The 2005 CDHS collected information on the exposure of respondents to both broadcast and print media. This information is important because it provides an indication of the exposure of women to mass media that can be used to disseminate family planning, health, and other information. Access to mass media is relatively high in Cambodia. Table 4.4.1 shows that four in five women have some weekly exposure to the mass media. Watching television is the most common way of accessing the media: 68 percent of women watch television at least once a week. Listening to the radio is also common (half of women listen at least once a week), with newspapers being the least utilized form of media (13 percent read a newspaper at least once a week).

Table 4.4.1 Exposure to mass media: women

Percentage of women who are exposed to specific media on a weekly basis by background characteristics, Cambodia 2005

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media at least once a week	No media at least once a week	Number of women
Age						
15-19	19.4	78.1	57.1	14.1	13.5	3,601
20-24	16.4	69.4	53.6	11.8	19.0	3,045
25-29	12.6	65.9	47.2	9.0	23.6	2,051
30-34	10.7	62.4	41.6	6.6	25.9	2,082
35-39	10.9	62.6	45.2	7.8	26.0	2,229
40-44	7.5	63.0	47.5	5.5	25.7	2,112
45-49	10.3	66.5	53.5	7.4	19.9	1,703
Residence						
Urban	33.2	82.9	55.8	23.3	9.5	2,973
Rural	9.2	64.8	49.0	6.6	23.6	13,850
Province						
Banteay Mean Chey	2.9	61.8	42.1	2.1	27.0	650
Kampong Cham	4.7	61.5	38.0	2.8	27.9	2,116
Kampong Chhnang	14.4	71.1	70.2	9.7	11.2	556
Kampong Speu	8.8	67.7	52.8	6.3	20.5	870
Kampong Thom	16.6	44.8	39.8	7.7	37.4	799
Kandal	12.2	87.7	70.3	11.1	8.8	1,612
Kratie	15.9	56.0	42.4	8.6	27.5	331
Phnom Penh	39.9	92.1	54.0	27.7	4.7	1,896
Prey Veng	5.9	68.1	41.9	4.3	21.1	1,395
Pursat	8.3	54.7	58.1	4.2	22.7	480
Siem Reap	15.2	71.2	45.9	11.4	22.1	1,200
Svay Rieng	9.1	68.1	60.8	6.9	16.6	658
Takeo	7.4	69.7	43.2	5.5	22.0	1,102
Otdar Mean Chey	4.2	26.8	29.4	2.1	57.5	177
Battambang/Krong Pailin	20.5	81.9	66.0	17.7	9.8	1,247
Kampot/Krong Kep	4.5	45.3	44.8	2.6	34.2	839
Krong Preah Sihanouk/ Kaoh Kong	15.3	62.2	56.2	12.3	21.7	379
Preah Vihear/Steung Treng	7.9	9.5	36.9	2.1	56.1	301
Mondol Kiri/Rattanak Kiri	5.6	21.6	17.2	1.5	66.0	215
Education						
No schooling	0.4	49.0	34.3	0.1	38.6	3,270
Primary	9.6	66.9	49.8	6.3	21.2	9,389
Secondary and higher	32.2	85.3	63.7	24.2	7.3	4,165
Wealth quintile						
Lowest	3.0	37.1	31.0	1.4	47.9	3,017
Second	4.0	53.0	42.1	2.2	30.7	3,164
Middle	6.4	69.4	51.8	3.8	18.2	3,245
Fourth	11.0	79.5	59.4	8.1	11.4	3,308
Highest	35.8	91.9	61.9	26.9	4.0	4,089
Total	13.4	68.0	50.2	9.5	21.1	16,823

There is no strong trend in access to the three types of media by age. The youngest group of women (15-19 years old) is most likely to access each form of media, particularly television and newspaper. However, women in the oldest age group are not always the least likely to access media. Women in the 40-44 age group are least likely to read a newspaper at least once a week (8 percent) while women ages 30-34 are least likely to watch television or listen to the radio (62 percent and 42 percent, respectively).

Residence, on the other hand, is associated with clear differences in media exposure. Urban women have better access to all three media sources than their rural counterparts. Due to lower literacy levels, rural women are much less likely to report that they read a newspaper at least once a week than urban women (9 percent compared with 33 percent).

Among the provinces, women residing in Phnom Penh have by far the greatest exposure to all three media (28 percent), with Battambang and Krong Pailin being the next provinces most exposed to mass media with 18 percent of women using all three types of media at least once a week. Women residing in Mondol Kiri and Rattanak Kiri, Otdar Mean Chey, and Preah Vihear and Steung Treng are the least likely to be exposed to the media (66 percent, 58 percent, and 56 percent, respectively, have no weekly access to media).

Media exposure increases with both the educational level and wealth quintile of the respondent. For example, 92 percent of women in the highest wealth quintile watch television at least once per week compared with 37 percent of women in the lowest wealth quintile. Regarding the printed media, 10 percent of women with primary education reported reading a newspaper at least once a week, compared with 32 percent of women with secondary and higher education.

A comparison of Tables 4.4.1 and 4.4.2 shows that women are somewhat more likely than men not to access media at least once per week (21 percent of women compared with 18 percent of men). Most of this difference is explained by greater access of men to radio: 60 percent of men listen to the radio at least once per week compared with 50 percent of women.

There has been an increase in exposure to the media since 2000, especially in areas outside of Phnom Penh. The proportion of women who do not access any form of media at least once a week declined from 30 percent in the 2000 CDHS to 21 percent in the 2005 survey. The greatest increase has come in the proportion of women who watch television at least once a week (56 percent in 2000 compared with 68 percent in 2005).

Table 4.4.2 Exposure to mass media: men

Percentage of men who are exposed to specific media on a weekly basis by background characteristics, Cambodia 2005

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media at least once a week	No media at least once a week	Number of men
Age						
15-19	10.5	78.6	64.6	8.0	12.3	1,662
20-24	15.8	72.7	61.5	13.0	16.1	1,222
25-29	14.2	65.1	54.6	11.1	23.1	830
30-34	11.6	64.0	53.5	9.3	23.5	811
35-39	13.6	62.4	56.4	9.8	21.7	858
40-44	15.9	69.5	59.4	13.1	19.6	793
45-49	14.2	70.0	64.1	12.1	16.2	555
Residence						
Urban	36.8	83.5	68.5	28.6	8.0	1,133
Rural	8.7	67.6	58.0	7.0	20.1	5,598
Province						
Banteay Mean Chey	8.1	55.2	47.7	4.0	25.8	253
Kampong Cham	0.2	43.3	19.9	0.1	46.0	870
Kampong Chhnang	19.2	78.5	80.5	15.5	4.6	234
Kampong Speu	5.6	93.0	93.4	5.4	1.0	348
Kampong Thom	11.3	69.6	54.3	8.2	17.6	331
Kandal	16.0	85.5	75.2	13.5	5.3	682
Kratie	5.7	47.4	43.9	3.5	34.2	128
Phnom Penh	48.7	94.4	81.8	41.5	1.2	737
Prey Veng	6.3	75.8	67.1	5.9	12.1	482
Pursat	5.1	57.4	56.1	3.0	26.8	202
Siem Reap	15.7	77.6	52.3	10.8	16.3	461
Svay Rieng	5.3	71.7	50.1	3.2	17.1	281
Takeo	4.7	63.5	56.7	3.1	20.4	491
Otdar Mean Chey	3.2	33.2	35.1	1.6	49.0	69
Battambang/Krong Pailin	17.0	85.2	76.5	13.9	4.2	456
Kampot/Krong Kep	4.5	73.9	75.2	3.9	11.6	321
Krong Preah Sihanouk/ Kaoh Kong	26.9	59.7	45.8	17.7	25.7	160
Preah Vihear/Steung Treng	9.3	14.4	49.4	3.2	44.2	116
Mondol Kiri/Rattanak Kiri	5.1	20.6	20.8	0.7	63.3	110
Education						
No schooling	0.6	46.6	34.1	0.6	41.6	606
Primary	5.8	65.3	57.0	4.5	20.8	3,261
Secondary and higher	24.8	80.9	68.4	19.7	10.0	2,865
Wealth quintile						
Lowest	3.0	44.5	45.1	2.0	37.2	1,078
Second	3.2	55.7	50.7	2.0	28.5	1,218
Middle	4.7	71.4	59.1	3.5	15.9	1,351
Fourth	10.3	77.7	64.3	7.6	12.3	1,468
Highest	38.2	90.8	72.7	31.5	4.3	1,616
Total 15-49	13.4	70.3	59.8	10.6	18.0	6,731

4.4 EMPLOYMENT

Employment Status

In the 2005 CDHS, respondents were asked a number of questions regarding their employment status, including whether they did any work in the seven days preceding the survey and, if not, whether they had worked in the 12 months before the survey. The results for women and men are presented in Tables 4.5.1 and 4.5.2. At the time of the survey, two-thirds of women (64 percent) were currently employed and an additional 15 percent were not employed but had worked sometime during the preceding 12 months (Figure 4.1). The proportions currently employed generally increase with increasing age. Women who are divorced, separated, or widowed are more likely to be employed than other women.

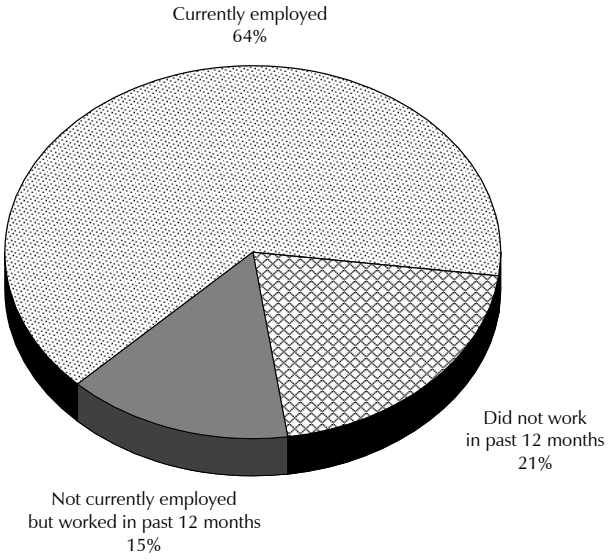
Table 4.5.1 Employment status: women

Percent distribution of women by employment status, according to background characteristics, Cambodia 2005

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing	Total	Number of women
Age						
15-19	46.5	9.9	43.1	0.5	100.0	3,601
20-24	64.5	15.5	19.6	0.4	100.0	3,045
25-29	66.4	17.0	16.2	0.3	100.0	2,051
30-34	69.5	16.0	14.2	0.2	100.0	2,082
35-39	70.3	18.0	11.5	0.2	100.0	2,229
40-44	73.1	15.4	11.2	0.2	100.0	2,112
45-49	72.9	13.0	13.9	0.2	100.0	1,703
Marital status						
Never married	58.2	9.0	32.4	0.4	100.0	5,352
Married or living together	65.7	17.5	16.5	0.3	100.0	10,087
Divorced/separated/widowed	75.9	15.8	8.2	0.2	100.0	1,384
Number of living children						
0	59.6	10.4	29.6	0.4	100.0	6,296
1-2	64.7	17.0	17.9	0.3	100.0	4,534
3-4	68.9	16.5	14.3	0.3	100.0	3,549
5+	68.1	18.4	13.2	0.3	100.0	2,444
Residence						
Urban	60.3	8.1	31.1	0.5	100.0	2,973
Rural	65.0	16.1	18.6	0.3	100.0	13,850
Province						
Banteay Mean Chey	52.2	20.6	24.3	2.9	100.0	650
Kampong Cham	72.6	9.8	17.6	0.0	100.0	2,116
Kampong Chhnang	73.3	14.6	11.4	0.6	100.0	556
Kampong Speu	60.8	24.7	14.6	0.0	100.0	870
Kampong Thom	63.6	12.3	24.1	0.0	100.0	799
Kandal	73.3	6.0	20.6	0.1	100.0	1,612
Kratie	54.9	13.4	31.3	0.4	100.0	331
Phnom Penh	62.2	2.9	34.8	0.1	100.0	1,896
Prey Veng	59.1	22.5	18.3	0.0	100.0	1,395
Pursat	46.1	27.9	26.0	0.0	100.0	480
Siem Reap	64.0	18.7	16.0	1.2	100.0	1,200
Svay Rieng	72.7	13.8	12.9	0.7	100.0	658
Takeo	58.6	20.7	20.4	0.3	100.0	1,102
Otdar Mean Chey	43.0	41.5	15.5	0.0	100.0	177
Battambang/Krong Pailin	68.8	11.2	20.0	0.0	100.0	1,247
Kampot/Krong Kep	63.3	18.9	17.5	0.3	100.0	839
Krong Preah Sihanouk/ Kaoh Kong	58.6	9.6	31.7	0.1	100.0	379
Preah Vihear/Steung Treng	55.7	31.3	13.0	0.0	100.0	301
Mondol Kiri/Rattanak Kiri	65.5	17.7	15.5	1.4	100.0	215
Education						
No schooling	65.4	20.9	13.3	0.4	100.0	3,270
Primary	66.9	16.0	16.9	0.3	100.0	9,389
Secondary and higher	57.1	6.7	35.8	0.5	100.0	4,165
Wealth quintile						
Lowest	62.5	23.0	14.2	0.3	100.0	3,017
Second	64.1	20.1	15.6	0.3	100.0	3,164
Middle	66.6	17.0	16.2	0.2	100.0	3,245
Fourth	66.1	12.2	21.4	0.4	100.0	3,308
Highest	62.1	4.4	33.1	0.4	100.0	4,089
Total	64.2	14.6	20.8	0.3	100.0	16,823

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Figure 4.1 Women's Employment Status in the Past 12 Months



CDHS 2005

Urban and rural women are roughly equally likely to be currently employed (60 percent compared with 65 percent). However, rural women are more likely than urban women to have worked in the past 12 months but not in the last seven days. As a result urban women are more likely than rural women not to have been employed at all in the 12 months preceding the survey (31 percent vs. 19 percent). Women in Kampong Cham, Kampong Chhnang, Kandal and Svay Rieng are most likely to be currently employed (73 percent). In contrast, women in Phnom Penh, Krong Preah Sihanouk and Kaoh Kong, and Kratie are most likely not to have been employed at any time in the 12 months preceding the survey (35 percent, 32 percent, and 31 percent, respectively).

Women with some secondary education and those in the highest wealth quintile are least likely to have worked in the 12 months preceding the survey.

The proportion of men currently employed is higher than that of women (79 percent compared with 64 percent). As with women, urban men are more likely not to have worked in the 12 months preceding the survey, as are men with secondary education or higher and those in the highest wealth quintile. The proportion of men currently employed ranges from 6 in 10 men in Pursat being currently employed, to 9 in 10 men in Kampong Cham being currently employed. Men were most likely to have worked at some point in the 12 previous months in Mondol Kiri and Rattanak Kiri and least likely to have done so in Phnom Penh.

The level of female employment is lower in 2005 than in 2000. The difference in the percentage of women currently employed between 2000 (73 percent) and 2005 (64 percent) may be due to a difference in the way the data on current employment were collected in the two DHS surveys. The difference in the level of women not employed in the 12 months preceding the survey between the two surveys is smaller: 18 percent in 2000 compared with 21 percent in 2005.

Table 4.5.2 Employment status: men

Percent distribution of men by employment status, according to background characteristics, Cambodia 2005

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Total	Number of men
Age					
15-19	44.6	3.4	52.1	100.0	1,662
20-24	81.3	5.1	13.7	100.0	1,222
25-29	90.9	6.7	2.4	100.0	830
30-34	95.3	4.2	0.5	100.0	811
35-39	95.2	4.0	0.8	100.0	858
40-44	94.4	4.4	1.2	100.0	793
45-49	93.3	3.7	3.1	100.0	555
Marital status					
Never married	56.8	3.5	39.7	100.0	2,606
Married or living together	93.8	5.0	1.2	100.0	3,973
Divorced/separated/widowed	90.5	5.3	4.2	100.0	152
Number of living children					
0	61.4	4.0	34.6	100.0	3,027
1-2	94.2	4.9	1.0	100.0	1,530
3-4	95.4	3.5	1.0	100.0	1,332
5+	91.8	6.5	1.7	100.0	842
Residence					
Urban	72.5	3.6	23.9	100.0	1,133
Rural	80.8	4.6	14.6	100.0	5,598
Province					
Banteay Mean Chey	87.8	1.4	10.8	100.0	253
Kampong Cham	92.2	0.0	7.8	100.0	870
Kampong Chhnang	78.6	3.8	17.6	100.0	234
Kampong Speu	71.0	10.6	18.4	100.0	348
Kampong Thom	78.1	2.6	19.2	100.0	331
Kandal	75.8	1.0	23.1	100.0	682
Kratie	83.8	1.7	14.5	100.0	128
Phnom Penh	71.9	1.1	26.9	100.0	737
Prey Veng	72.9	12.2	14.9	100.0	482
Pursat	60.0	24.1	15.9	100.0	202
Siem Reap	77.2	12.2	10.6	100.0	461
Svay Rieng	75.6	2.8	21.6	100.0	281
Takeo	79.7	3.6	16.7	100.0	491
Otdar Mean Chey	83.4	1.2	15.4	100.0	69
Battambang/Krong Pailin	84.8	1.8	13.4	100.0	456
Kampot/Krong Kep	85.3	0.5	14.2	100.0	321
Krong Preah Sihanouk/ Kaoh Kong	88.0	3.7	8.3	100.0	160
Preah Vihear/Steung Treng	77.8	6.5	15.6	100.0	116
Mondol Kiri/Rattanak Kiri	87.0	7.3	5.8	100.0	110
Education					
No schooling	88.1	9.5	2.4	100.0	606
Primary	84.9	5.4	9.7	100.0	3,261
Secondary and higher	71.3	2.2	26.5	100.0	2,865
Wealth quintile					
Lowest	84.5	8.8	6.8	100.0	1,078
Second	81.5	6.7	11.8	100.0	1,218
Middle	80.6	4.2	15.2	100.0	1,351
Fourth	79.1	3.0	17.9	100.0	1,468
Highest	73.7	1.3	25.0	100.0	1,616
Total 15-49	79.4	4.4	16.2	100.0	6,731

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Occupation

Respondents who were currently employed or had worked in the 12 months preceding the survey were further asked to specify their occupation. Tables 4.6.1 and 4.6.2 show data on occupation of employed women and men, respectively. Most employed persons are engaged in the agricultural sector, including 59 percent of women and 63 percent of men. Over one-quarter of women are employed in sales and services as well as about 12 percent of men. Five percent of women are employed in skilled manual labor and 5 percent are employed in unskilled manual labor. Less than 3 percent of women are employed in professional, technical, and managerial fields.

Table 4.6.1 Occupation: women

Percent distribution of women employed in the 12 months preceding the survey by occupation, according to background characteristics, Cambodia 2005

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of women
Age									
15-19	0.9	0.2	24.0	9.6	7.1	57.4	0.9	100.0	2,031
20-24	3.8	1.3	25.6	10.0	6.7	51.8	0.6	100.0	2,437
25-29	3.4	1.3	26.1	6.3	5.3	57.0	0.5	100.0	1,711
30-34	2.1	0.9	25.4	1.6	5.2	64.5	0.3	100.0	1,781
35-39	3.7	0.9	26.2	1.3	4.7	62.4	0.7	100.0	1,969
40-44	1.9	0.5	28.5	0.9	4.7	62.8	0.7	100.0	1,870
45-49	2.9	0.7	29.0	0.7	3.2	62.7	0.8	100.0	1,463
Marital status									
Never married	3.9	1.1	25.7	9.4	7.7	51.4	0.7	100.0	3,597
Married or living together	2.2	0.8	25.9	3.0	4.6	63.1	0.6	100.0	8,395
Divorced/separated/widowed	2.8	0.6	30.3	3.1	4.6	57.4	1.1	100.0	1,269
Number of living children									
0	3.8	1.1	25.8	9.2	7.3	52.0	0.7	100.0	4,410
1-2	3.0	1.2	27.4	4.5	5.0	58.0	0.8	100.0	3,707
3-4	2.1	0.5	28.7	1.3	3.9	62.9	0.6	100.0	3,031
5+	0.7	0.2	21.8	0.7	4.2	72.1	0.3	100.0	2,113
Residence									
Urban	7.8	3.5	59.3	3.6	5.8	18.6	1.5	100.0	2,032
Rural	1.8	0.4	20.3	4.9	5.3	66.8	0.5	100.0	11,229
Province									
Banteay Mean Chey	1.0	0.1	29.9	0.6	6.0	61.9	0.6	100.0	473
Kampong Cham	1.7	0.4	22.2	1.9	3.3	70.4	0.2	100.0	1,743
Kampong Chhnang	1.9	0.8	20.2	8.8	4.9	62.2	1.3	100.0	489
Kampong Speu	2.0	0.0	15.9	12.2	2.2	67.7	0.0	100.0	743
Kampong Thom	2.6	0.3	32.2	0.7	4.6	59.0	0.6	100.0	607
Kandal	2.7	1.0	23.3	15.5	6.2	50.8	0.5	100.0	1,278
Kratie	2.7	0.5	18.8	0.5	1.7	75.7	0.2	100.0	226
Phnom Penh	9.0	4.9	59.6	13.2	4.8	7.2	1.4	100.0	1,236
Prey Veng	2.0	0.0	16.6	2.3	2.7	75.9	0.6	100.0	1,139
Pursat	1.5	0.3	17.7	0.0	3.5	76.5	0.4	100.0	355
Siem Reap	1.2	0.4	31.6	1.6	16.6	47.9	0.7	100.0	993
Svay Rieng	2.4	0.0	17.3	1.1	2.8	75.8	0.5	100.0	569
Takeo	1.9	0.3	20.2	2.9	11.7	62.1	0.9	100.0	874
Otdar Mean Chey	1.4	0.4	7.9	0.1	0.8	89.1	0.4	100.0	150
Battambang/Krong Pailin	3.0	1.0	31.3	0.6	6.0	57.0	1.0	100.0	998
Kampot/Krong Kep	1.9	0.3	16.2	0.6	1.7	79.1	0.2	100.0	689
Krong Preah Sihanouk/ Kaoh Kong	4.2	0.9	53.8	2.8	5.4	30.4	2.5	100.0	259
Preah Vihear/Steung Treng	1.9	0.6	12.7	0.2	1.7	82.8	0.1	100.0	262
Mondol Kiri/Rattanak Kiri	1.8	0.6	10.7	0.3	1.4	84.5	0.7	100.0	179
Education									
No schooling	0.1	0.0	18.3	1.0	4.7	75.4	0.5	100.0	2,823
Primary	0.7	0.1	25.4	5.3	5.1	62.9	0.5	100.0	7,781
Secondary and higher	11.5	3.8	37.5	7.2	7.0	31.8	1.2	100.0	2,657
Wealth quintile									
Lowest	0.1	0.0	9.9	1.4	4.8	83.6	0.2	100.0	2,578
Second	0.7	0.0	12.1	2.2	3.8	80.8	0.3	100.0	2,662
Middle	0.7	0.0	17.1	4.9	5.5	71.3	0.4	100.0	2,713
Fourth	3.1	0.3	27.7	7.6	7.4	53.3	0.6	100.0	2,589
Highest	8.7	3.8	63.5	7.4	5.6	9.3	1.6	100.0	2,719
Total	2.7	0.8	26.3	4.7	5.4	59.4	0.6	100.0	13,261

Table 4.6.2 Occupation: men

Percent distribution of men employed in the 12 months preceding the survey by occupation, according to background characteristics, Cambodia 2005

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of men
Age									
15-19	1.1	0.1	7.3	7.3	8.0	74.1	2.2	100.0	797
20-24	3.4	1.0	10.6	14.8	9.9	58.9	1.3	100.0	1,055
25-29	5.4	2.2	9.5	14.2	7.2	60.6	0.8	100.0	810
30-34	3.8	3.5	13.7	10.0	5.3	62.8	0.9	100.0	807
35-39	7.0	2.4	12.7	10.3	6.5	60.9	0.2	100.0	851
40-44	6.9	1.8	16.3	9.2	4.4	59.8	1.6	100.0	784
45-49	9.1	2.9	11.4	9.2	4.6	62.3	0.5	100.0	538
Marital status									
Never married	3.6	1.3	10.2	10.5	8.1	64.3	2.0	100.0	1,571
Married or living together	5.5	2.2	11.9	11.1	6.3	62.3	0.7	100.0	3,925
Divorced/separated/widowed	6.3	0.9	17.7	13.7	8.1	50.6	2.7	100.0	145
Number of living children									
0	4.2	1.5	10.2	11.0	8.0	63.2	1.7	100.0	1,980
1-2	6.0	3.0	12.6	13.5	7.2	57.1	0.7	100.0	1,515
3-4	5.5	1.6	15.5	9.9	6.0	60.7	0.9	100.0	1,318
5+	4.3	1.3	6.8	7.9	4.5	74.2	0.9	100.0	827
Residence									
Urban	10.9	7.1	28.2	21.7	9.5	20.9	1.8	100.0	863
Rural	3.9	0.9	8.6	9.0	6.3	70.1	1.0	100.0	4,778
Province									
Banteay Mean Chey	3.2	0.2	7.3	10.4	4.1	73.3	1.5	100.0	225
Kampong Cham	3.5	1.1	8.5	7.6	4.4	74.2	0.8	100.0	802
Kampong Chhnang	3.6	1.4	11.9	8.4	9.6	63.7	1.3	100.0	193
Kampong Speu	5.3	2.0	5.7	9.5	10.7	65.8	1.0	100.0	284
Kampong Thom	2.6	0.2	4.9	8.3	5.5	77.3	1.2	100.0	267
Kandal	5.5	1.8	14.7	14.8	13.7	48.1	1.4	100.0	524
Kratie	3.3	0.9	5.6	8.1	6.4	75.0	0.7	100.0	109
Phnom Penh	12.2	9.4	33.3	24.6	8.3	10.6	1.6	100.0	539
Prey Veng	3.7	0.2	9.7	4.5	6.5	75.4	0.0	100.0	411
Pursat	3.7	0.9	5.7	8.6	6.0	74.8	0.3	100.0	170
Siem Reap	3.8	0.9	13.0	15.1	12.9	51.4	3.0	100.0	412
Svay Rieng	5.5	0.4	8.9	9.9	3.5	71.2	0.6	100.0	221
Takeo	5.8	0.3	4.4	7.6	4.0	77.0	0.9	100.0	409
Otdar Mean Chey	5.9	0.8	6.6	2.9	2.4	81.4	0.0	100.0	58
Battambang/Krong Pailin	4.4	2.0	10.8	14.6	4.9	62.7	0.6	100.0	395
Kampot/Krong Kep	3.6	1.1	5.7	2.0	1.5	84.4	1.6	100.0	275
Krong Preah Sihanouk/ Kaoh Kong	6.3	2.6	21.3	14.9	6.2	47.0	1.6	100.0	147
Preah Vihear/Steung Treng	2.7	2.2	11.7	5.2	2.2	75.2	0.7	100.0	98
Mondol Kiri/Rattanak Kiri	4.4	1.7	9.7	10.3	2.5	70.9	0.5	100.0	104
Education									
No schooling	0.3	0.0	6.2	6.4	6.4	78.6	2.1	100.0	592
Primary	1.2	0.3	8.2	8.8	7.7	72.9	0.7	100.0	2,945
Secondary and higher	11.6	4.6	17.8	15.2	5.7	43.6	1.4	100.0	2,105
Wealth quintile									
Lowest	0.6	0.0	3.6	3.7	6.6	84.4	1.1	100.0	1,005
Second	0.5	0.2	4.3	4.0	6.9	83.6	0.6	100.0	1,074
Middle	3.5	0.5	3.2	6.8	6.3	79.0	0.6	100.0	1,146
Fourth	6.6	0.7	11.6	12.8	7.7	59.1	1.6	100.0	1,205
Highest	12.5	7.5	32.7	25.4	6.5	13.9	1.5	100.0	1,211
Total 15-49	5.0	1.9	11.6	11.0	6.8	62.6	1.1	100.0	5,641

Residence has a significant effect on the type of occupation. Women and men in urban areas are more likely to hold jobs in the professional, technical, and managerial, clerical, and sales and services sectors than are those in rural areas. Rural women and men, on the other hand, are more likely than those in urban areas to be engaged in agricultural work. Those with less education and in lower wealth quintiles are also more likely to work in agriculture.

Since the 2000 CDHS, the percentage of women working in agriculture has decreased from 67 percent to 59 percent while the percentage working in sales and services has increased from 20 percent to 26 percent.

Earnings, Employers and Continuity of Employment

Table 4.7 shows the percent distribution of employed women by type of earnings and employment characteristics. The table takes into account whether women are involved in agricultural or nonagricultural occupations, because all of the employment variables in the table are strongly influenced by the sector in which a woman is employed.

Table 4.7 Type of employment

Percent distribution of women employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Cambodia 2005

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	17.8	92.8	48.2
Cash and in-kind	14.6	1.4	9.2
In-kind only	59.9	1.5	36.2
Not paid	7.5	4.2	6.2
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	47.8	20.3	36.7
Employed by nonfamily member	10.7	32.9	19.6
Self-employed	41.5	46.7	43.6
Missing	0.0	0.1	0.0
Total	100.0	100.0	100.0
Continuity of employment			
All year	6.8	79.5	36.4
Seasonal	91.7	14.4	60.3
Occasional	1.5	6.0	3.3
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women employed during the past 12 months	7,874	5,302	13,261

Note: Total includes women with missing information on type of employment who are not shown separately.

Three in five women engaged in agricultural work are paid in-kind, around one in five is paid in cash only, 15 percent are paid in cash and in-kind, and 8 percent are unpaid. Women employed in the nonagricultural sector are more likely to be paid in cash (93 percent). Nationally, across all occupations, almost half (48 percent) of employed women are paid in cash and 36 percent are paid in-kind for their work.

Four in 10 employed women are self employed, and 37 percent are employed by a family member. One in five employed women works for someone outside the family.

Among women working in the agricultural sector, almost half (48 percent) are working for a family member compared with one-fifth of those in the nonagricultural sector. In addition, the proportion of women employed by someone outside the family is three times higher among those working in the nonagricultural sector than those in the agricultural sector (33 percent versus 11 percent).

Generally, 36 percent of employed women work all year round while three in five employed women work seasonally. Those who work occasionally account for only 3 percent. Among women working in the agricultural sector, around nine in ten are seasonal workers compared with only 14 percent of those working in the nonagricultural sector. Continuity of employment is more assured for women engaged in nonagricultural work than those in agricultural work. For example, 4 in 5 women working in the nonagricultural sector work all year compared with only 7 percent of women engaged in agricultural work.

4.5 KNOWLEDGE AND ATTITUDES CONCERNING TUBERCULOSIS

Tuberculosis (TB) is a leading cause of death in the world and a major health problem in the developing world. TB is caused by the bacteria mycobacterium tuberculosis whose transmission is mainly airborne through droplets coughed or sneezed out by infected persons. The infection is primarily concentrated in the lungs but in some cases it can be transmitted to other areas of the body. The very young and very old and persons with a suppressed immune system (brought on from HIV infection or other causes) are especially prone to contracting the disease when exposed to it. The 2005 CDHS collected information from women on the level of their awareness of TB. Specifically, respondents were asked whether they had ever heard of the illness, how it spreads from one person to another, whether it can be cured, and whether they would want to keep the information secret if a member of their family got TB. This information is useful in policy formulation and implementation of programmes designed to combat and limit the spread of the disease.

Table 4.8 shows the percentage of women who have heard of TB, and among those who have heard of it, their knowledge and attitudes concerning TB, according to background characteristics. Knowledge of TB is almost universal among women in Cambodia (97 percent). There is very little variation in awareness by background characteristics, although knowledge of TB does increase somewhat with educational attainment and wealth quintile. For example, 93 percent of women with no formal education have heard of TB compared with 99 percent of women with secondary education or higher. Knowledge of TB is over 90 percent in all provinces with the exception of Preah Vihear and Steung Treng (89 percent) and Mondol Kiri and Rattanak Kiri (69 percent).

Two in three women (64 percent) who know of TB reported that it is spread through the air when coughing or sneezing. Knowledge of how TB is spread slightly decreases with increasing age and slightly rises with educational attainment. Generally, knowledge of the way TB is spread increases with wealth quintile; however, women in the fourth wealth quintile are more likely to know how TB is spread than women in the highest wealth quintile (73 percent versus 66 percent). Correct knowledge of how TB spreads varies widely across provinces, ranging from 39 percent in Banteay Mean Chey to 94 percent in Otdar Mean Chey.

Eighty-four percent of women believe that TB can be cured. Women's belief that TB can be cured varies by education, wealth quintile, and province. More than nine in ten women (92 percent) with some secondary education or higher believe that TB can be cured compared with three-quarters of women with no education. Women in the top two wealth quintiles are more likely to believe that TB can be cured than those in the lowest three quintiles. Belief that TB can be cured is highest in Battambang and Krong Pailin (95 percent) and lowest in Mondol Kiri and Rattanak Kiri (62 percent).

Wanting to keep a family member's illness secret is a sign of stigma against persons with TB. Only 13 percent of women in Cambodia say they would want to keep secret a family member's TB illness. Younger women and women living in urban areas are slightly more likely to want to keep the illness secret.

Table 4.8 Knowledge and attitude concerning tuberculosis: women

Percentage of women who have heard of tuberculosis (TB), and among women who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Cambodia 2005

	Among all women:		Among women who have heard of TB:			
Background characteristic	Percentage who have heard of TB	Number of women	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of women
Age						
15-19	96.6	3,601	69.4	83.4	16.4	3,480
20-24	96.8	3,045	65.5	84.1	13.1	2,946
25-29	97.3	2,051	62.5	83.2	12.0	1,996
30-34	96.4	2,082	63.5	83.6	12.4	2,008
35-39	97.5	2,229	63.5	84.6	13.3	2,173
40-44	97.3	2,112	60.5	82.6	11.6	2,055
45-49	97.6	1,703	61.8	86.7	11.0	1,662
Residence						
Urban	98.2	2,973	64.5	86.5	14.9	2,920
Rural	96.7	13,850	64.4	83.4	12.8	13,400
Province						
Banteay Mean Chey	97.1	650	38.9	89.4	12.3	631
Kampong Cham	93.2	2,116	66.2	78.3	12.9	1,972
Kampong Chhnang	99.3	556	86.6	89.7	15.0	552
Kampong Speu	96.4	870	47.6	79.4	22.2	839
Kampong Thom	95.3	799	72.9	81.2	14.7	762
Kandal	98.4	1,612	62.5	86.5	6.9	1,586
Kratie	93.3	331	41.8	78.3	14.2	309
Phnom Penh	99.1	1,896	53.5	82.3	18.4	1,879
Prey Veng	98.0	1,395	42.1	82.4	23.3	1,368
Pursat	94.6	480	55.9	88.0	14.8	454
Siem Reap	99.3	1,200	66.3	81.6	2.8	1,192
Svay Rieng	99.2	658	86.0	95.4	7.3	653
Takeo	99.3	1,102	77.3	89.1	9.1	1,094
Otdar Mean Chey	99.3	177	93.8	91.8	12.1	176
Battambang/Krong Pailin	99.8	1,247	91.7	94.5	5.0	1,245
Kampot/Krong Kep	98.9	839	74.2	81.4	11.0	830
Krong Preah Sihanouk/ Kaoh Kong	95.4	379	70.3	72.9	19.6	362
Preah Vihear/Steung Treng	89.0	301	44.3	67.3	32.5	268
Mondol Kiri/Rattanak Kiri	69.3	215	56.5	62.1	29.0	149
Education						
No schooling	93.3	3,270	53.4	75.1	11.5	3,052
Primary	97.2	9,389	63.2	83.4	14.5	9,128
Secondary and higher	99.4	4,165	75.2	91.7	11.5	4,139
Wealth quintile						
Lowest	93.2	3,017	58.0	75.9	13.6	2,813
Second	96.2	3,164	60.2	80.4	12.3	3,044
Middle	97.2	3,245	64.0	84.4	14.5	3,153
Fourth	99.0	3,308	72.6	89.0	12.1	3,274
Highest	98.7	4,089	65.8	87.7	13.4	4,035
Total	97.0	16,823	64.4	83.9	13.2	16,319

4.6 USE OF TOBACCO

Smoking or other use of tobacco affects women's health and may adversely affect their children's health, especially in terms of vulnerability to respiratory illness. In addition, tobacco use during pregnancy increases the risk of having a small or low birth weight baby. Women interviewed in the 2005 CDHS were asked about their smoking habits. Table 4.9 shows the percentage of women who use various types of tobacco and the percent distribution of cigarette smokers by number of cigarettes smoked in the preceding 24 hours, according to background characteristics.

Overall, 11 percent of women in Cambodia use some form of tobacco. Four percent smoke cigarettes and 8 percent use a form of tobacco other than cigarettes or a pipe (some women use more than one form of tobacco). Among pregnant women, 8 percent use tobacco, and 12 percent of women who are breastfeeding do so. Tobacco use varies greatly by background characteristics. Older women are much more likely to use tobacco than are younger women. Cigarette smoking increases from less than 1 percent among women age 15-19 to 7 percent among women 45-49 while use of tobacco other than cigarettes or pipe increases from close to zero to 27 percent among women in these same age groups.

Women in rural areas, those with less education and those in lower wealth quintiles are more likely to use tobacco. Only 4 percent of women in urban areas use tobacco compared with 12 percent of women in rural areas. Tobacco use ranges from 1 percent among women with secondary education and 2 percent among women in the highest wealth quintile to 22 percent among women with no education and 24 percent among those in the lowest wealth quintile. Tobacco use is highest in Mondol Kiri and Rattanak Kiri where four in ten women use tobacco, mostly in the form of cigarettes, and in Preah Vihear and Steung Treng (28 percent) where the proportions of women smoking cigarettes and using other forms of tobacco are both high.

Table 4.9 Use of tobacco: women

Percentage of women who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, Cambodia 2005

Background characteristic	Uses tobacco			Does not use tobacco	Number of women	Number of cigarettes in the past 24 hours					Total	Number of cigarette smokers
	Cigarettes	Pipe	Other tobacco			1-2	3-5	6-9	10+	Don't know/ missing		
Age												
15-19	0.7	0.1	0.1	99.2	3,601	40.8	24.1	6.4	12.6	16.1	100.0	24
20-24	1.9	0.1	0.6	97.8	3,045	27.7	31.1	23.3	14.8	3.1	100.0	56
25-29	3.7	0.2	2.5	94.1	2,051	34.8	34.2	5.5	20.7	4.8	100.0	75
30-34	4.6	0.2	6.7	88.9	2,082	35.5	34.3	10.1	17.1	3.1	100.0	96
35-39	5.6	0.1	10.3	85.1	2,229	25.8	33.3	10.5	27.2	3.1	100.0	124
40-44	5.8	0.1	18.5	77.1	2,112	23.1	36.0	12.6	23.2	5.1	100.0	122
45-49	6.6	0.2	27.4	67.2	1,703	20.4	33.1	14.5	27.2	4.8	100.0	112
Residence												
Urban	2.1	0.0	2.2	95.9	2,973	34.6	26.1	3.9	30.7	4.7	100.0	61
Rural	4.0	0.1	8.9	87.7	13,850	26.9	34.3	12.9	21.3	4.5	100.0	549
Province												
Banteay Mean Chey	3.6	0.1	8.5	88.3	650	(10.0)	(32.7)	(8.1)	(31.6)	(17.6)	100.0	24
Kampong Cham	6.3	0.0	8.0	86.2	2,116	(28.3)	(31.2)	(25.2)	(13.1)	(2.3)	100.0	132
Kampong Chhnang	5.8	0.1	11.4	83.4	556	(25.4)	(36.5)	(4.7)	(18.0)	(15.3)	100.0	32
Kampong Speu	2.0	0.0	7.3	91.2	870	*	*	*	*	*	100.0	17
Kampong Thom	2.3	0.0	8.2	89.8	799	*	*	*	*	*	100.0	18
Kandal	1.1	0.0	4.5	94.5	1,612	*	*	*	*	*	100.0	18
Kratie	11.7	0.3	10.3	80.5	331	26.6	47.9	5.4	18.9	1.1	100.0	39
Phnom Penh	1.4	0.0	0.8	97.7	1,896	*	*	*	*	*	100.0	26
Prey Veng	1.3	0.0	18.9	80.1	1,395	*	*	*	*	*	100.0	19
Pursat	2.8	0.0	13.8	83.9	480	*	*	*	*	*	100.0	13
Siem Reap	3.2	0.0	9.6	88.1	1,200	(36.4)	(21.8)	(13.5)	(28.3)	(0.0)	100.0	39
Svay Rieng	1.3	0.0	14.4	84.8	658	*	*	*	*	*	100.0	9
Takeo	0.5	0.1	5.7	93.8	1,102	*	*	*	*	*	100.0	6
Otdar Mean Chey	5.2	0.0	10.3	85.5	177	(35.4)	(43.9)	(2.3)	(15.9)	(2.5)	100.0	9
Battambang/Krong Pailin	3.6	0.0	5.1	92.0	1,247	(9.4)	(47.2)	(5.6)	(37.8)	(0.0)	100.0	44
Kampot/Krong Kep	2.6	0.0	1.6	96.3	839	*	*	*	*	*	100.0	22
Krong Preah Sihanouk/ Kaoh Kong	2.2	0.0	0.9	97.1	379	*	*	*	*	*	100.0	8
Preah Vihear/Steung Treng	18.1	0.0	12.8	71.7	301	47.5	37.5	3.6	10.9	0.5	100.0	54
Mondol Kiri/Rattanak Kiri	37.2	7.9	9.3	59.3	215	20.1	35.7	15.3	28.6	0.3	100.0	80
Education												
No schooling	8.7	0.6	15.0	77.7	3,270	29.2	33.6	12.4	23.4	1.4	100.0	285
Primary	3.3	0.0	8.2	88.9	9,389	26.8	34.7	12.4	21.3	4.8	100.0	306
Secondary and higher	0.4	0.0	0.8	98.8	4,165	*	*	*	*	*	100.0	19
Maternity status												
Pregnant	3.8	0.2	4.4	92.2	993	37.5	32.7	4.8	25.1	0.0	100.0	38
Breastfeeding (not pregnant)	4.7	0.3	7.6	88.3	2,811	29.0	37.4	9.3	22.0	2.2	100.0	131
Neither	3.4	0.1	8.0	89.1	13,019	26.4	32.4	13.4	22.1	5.6	100.0	441
Wealth quintile												
Lowest	9.2	0.4	15.9	76.5	3,017	24.2	36.2	15.0	21.6	3.0	100.0	277
Second	4.2	0.1	11.3	85.2	3,164	29.2	31.4	12.0	24.4	2.9	100.0	132
Middle	3.4	0.1	8.0	89.1	3,245	27.7	37.9	10.8	16.5	7.0	100.0	111
Fourth	1.6	0.0	4.8	93.8	3,308	30.6	32.6	7.0	26.3	3.5	100.0	52
Highest	0.9	0.0	1.1	97.9	4,089	(42.7)	(10.0)	(0.7)	(31.1)	(15.5)	100.0	38
Total	3.6	0.1	7.7	89.2	16,823	27.7	33.5	12.0	22.3	4.5	100.0	610

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

FERTILITY 5

Fertility is an important component of population dynamics and plays a large role in changing the size and structure of the population of a given area. Cambodia is a country in which population size and structure were severely impacted during the reign of the Khmer Rouge (1975-1979), both in terms of excess mortality as well as reduced fertility. The Cambodia DHS survey generates detailed information on fertility and fertility patterns over time that will be useful for the formulation of policies and the design of programs.

Current fertility levels, trends and differentials in fertility, cumulative fertility, birth intervals, age at first birth, and adolescent fertility are examined in this chapter. The fertility indicators presented in this chapter are based on information obtained from women age 15-49. All women who were interviewed in the 2005 CDHS were asked to report the total number of daughters and sons they had ever given birth to in their lifetime. To encourage complete reporting, women were asked separately about children still living at home, those living elsewhere, and those who had died. A complete birth history was then obtained, including information on the sex, date of birth,[1] and survival status of each child, and the age at death for dead children.

5.1 CURRENT FERTILITY LEVELS AND DIFFERENTIALS

The current level of fertility refers to live births in the three-year period preceding the survey This information was obtained from birth history data and is presented in Table 5.1. The summary measures include age-specific fertility rates (ASFRs),[2] total fertility rates (TFRs) for women age 15-49, the general fertility rate (GFR), and the crude birth rate (CBR). The ASFRs represent the number of live births per 1,000 women in the age group. The TFR is a common measure of current fertility and is defined as the total number of births a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific fertility rates. The GFR is defined as the annual number of births per 1,000 women age 15-44. The CBR is the total number of births occurring in a given year per 1,000 population.

Table 5.1 Current fertility

Age-specific and total fertility rates, general fertility rates, and crude birth rates for the three years preceding the survey, by residence, Cambodia 2005

Age group	Residence		Total
	Urban	Rural	
15-19	32	51	47
20-24	133	185	175
25-29	139	188	180
30-34	134	143	142
35-39	71	94	91
40-44	47	40	41
45-49	2	5	5
TFR (15-49)	2.8	3.5	3.4
GFR	89	115	111
CBR	23.8	25.9	25.6

Note: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate (births divided by the number of women age 15-44), expressed per 1,000 women
CBR: Crude birth rate expressed per 1,000 population

[1] During data collection, interviewers recorded Gregorian month and year of birth. However, when the respondent only knew the Khmer month and year of birth, the interviewer used a chart specially designed for the CDHS survey to convert Khmer dates into Gregorian dates.

[2] Numerators of the three-year ASFRs are calculated by summing the number of live births that occurred in the period 1-36 months preceding the survey (determined by the date of interview and the date of birth of the child) and classifying them by age (in five-year groups) of the mother at the time of birth (determined by the mother's birth date). The denominators of the rates are the number of woman-years lived in each of the specified five year age groups during the 1-36 months preceding the survey.

The total fertility rate in Cambodia for the three years preceding the survey indicates that if fertility rates were to remain constant at the level prevailing during the period 2003-2005 a Cambodian woman would bear 3.4 children during her lifetime. The average Cambodian woman will give birth to 1.1 children by age 25[3] and 2.0 children by age 30. The TFR in urban areas is 2.8 births per woman, almost one child lower than the rate in rural areas (3.5 births per woman). An examination of the age-specific rates by urban-rural residence indicates that while the age pattern of fertility is generally the same in urban and rural areas, fertility rates are higher in nearly every age group for rural women as compared with urban women. Among women age 15-19, fertility rates are quite low in both urban and rural areas (32 and 51 per 1,000 women, respectively). Rates then increase to reach their maximum among women age 25-29 (139 and 188 per 1,000 urban and rural women, respectively). Above the age of 29, rates decline slowly but regularly in both urban and rural areas.

The CBR, also presented in Table 5.1, is 25.6 per 1,000 population. The GFR is 111 per 1,000 women age 15-44 for the three years prior to the survey. Like the TFR, the GFR and CBR also vary by urban-rural residence. Thus, with a GFR of 115, the average annual number of births to rural women is nearly one-third higher than that for urban women (89 births per 1,000 women). The CBR in rural areas (25.9 per 1,000) is somewhat higher than the CBR in urban areas (23.8 per 1,000).

Table 5.2 presents differentials in fertility by urban-rural residence, province, education, and wealth quintile. There are large differences in fertility levels across provinces. Fertility is lowest in the capital city of Phnom Penh, at 2.5 children per woman and highest in Mondol Kiri/Rattanak Kiri at 5.2 children per woman. Among the remaining provinces, total fertility ranges from 3.0 to 4.9. Fertility is well known to be inversely related to level of education around the world and Cambodian women are demonstrating this universal pattern. A woman with no education (TFR of 4.3) has 0.8 children more than a woman with primary education (TFR of 3.5), who herself has one child more than a woman with some secondary education (TFR of 2.6).

[3] Calculated as the age-specific fertility rate for women 15-19 plus the age-specific fertility rate for women 20-24, multiplied by 5 (to take into account the five-year age group), divided by 1,000.

Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women currently pregnant, and mean number of children ever born to women age 40-49, by background characteristics, Cambodia 2005

Background characteristic	Total fertility rate	Percentage currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	2.8	4.2	4.2
Rural	3.5	6.3	5.1
Province			
Banteay Mean Chey	3.8	5.8	5.5
Kampong Cham	3.2	8.4	4.6
Kampong Chhnang	4.3	5.5	4.8
Kampong Speu	3.7	6.0	5.5
Kampong Thom	3.7	5.9	4.9
Kandal	3.1	4.8	5.1
Kratie	4.2	7.3	5.0
Phnom Penh	2.5	4.1	3.8
Prey Veng	3.0	4.9	4.6
Pursat	3.9	6.0	6.0
Siem Reap	4.2	7.0	5.4
Svay Rieng	3.0	6.5	4.7
Takeo	3.2	4.1	4.5
Otdar Mean Chey	4.2	6.0	6.0
Battambang/Krong Pailin	3.5	5.5	5.3
Kampot/Krong Kep	3.2	5.9	5.1
Krong Preah Sihanouk/Kaoh Kong	3.9	5.3	5.5
Preah Vihear/Steung Treng	4.9	9.5	6.6
Mondol Kiri/Rattanak Kiri	5.2	10.1	6.4
Education			
No schooling	4.3	7.1	5.3
Primary	3.5	6.0	4.9
Secondary and higher	2.6	4.7	3.5
Wealth quintile			
Lowest	4.9	8.0	5.5
Second	3.9	7.2	5.3
Middle	3.2	5.7	5.0
Fourth	2.9	6.1	5.1
Highest	2.4	3.4	3.8
Total	3.4	5.9	4.9

5.2 FERTILITY TRENDS

The 2005 CDHS data can be used to assess the trend in fertility in Cambodia in several ways.

Comparison of Current and Cumulative Fertility Levels

Table 5.2 also allows a crude assessment of trends in the various subgroups by comparing current fertility with a measure of completed fertility: the mean number of children ever born to women age 40-49. The mean number of children ever born to older women who are nearing the end of their reproductive period is an indicator of average completed fertility of women who began childbearing during the three decades preceding the survey. If fertility remained constant over time and the reported data on both children ever born and births during the three years preceding the survey are reasonably accurate, the TFR and the mean number of children ever born to women 40-49 would be equal. When fertility levels have been falling, the TFR will be substantially lower than the mean number of children ever born among women age 40-49. Comparison of the mean number of children

ever born to women age 40-49 (4.9) with the TFR (3.4) suggests a decline of about one and one-half children per woman in Cambodia over the past few decades. Fertility has declined in both rural and urban areas, in all provinces, at all educational levels, and for all wealth quintiles. The differences between the level of completed and current fertility are of similar magnitude in urban (1.4) and rural areas (1.6). The largest observed differences are in Pursat and Kandal, with a decrease of 2 children per woman. While all provinces demonstrate declines in fertility, it has only decreased by half a child per woman in Kampong Chhnang.

Table 5.2 includes another indicator of current fertility, the percentage of women who reported being pregnant at the time of the survey. This percentage may be underreported since women may not be aware of a pregnancy, especially at the very early stages, and some women who are early in the pregnancy may not want to reveal that they are pregnant. Six percent of women reported that they were pregnant at the time of the survey. The proportion of pregnant women is lower in urban areas (4 percent) than in rural areas (6 percent). Phnom Penh and Takeo have the lowest proportion currently pregnant (4 percent), whereas the highest proportion pregnant is reported in Mondol Kiri/Rattanak Kiri (10 percent). The proportion of women currently pregnant declines steadily with increasing education and increasing wealth quintile.

Retrospective Data

Fertility trends can be investigated using retrospective data from the birth histories collected within the 2005 CDHS. Table 5.3.1 shows ASFRs for successive five-year periods preceding the 2005 CDHS. Numerators of the rates are classified by five-year segments of time preceding the survey and the mother's age at the time of the survey. Because women 50 years and over were not interviewed in the survey, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years before the survey because these women would have been over age 50 at the time of the survey and were not interviewed.

Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Cambodia 2005

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	52	65	85	58
20-24	178	205	243	228
25-29	177	211	261	276
30-34	139	176	231	[272]
35-39	94	132	[180]	
40-44	41	[77]		
45-49	[5]			

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

Age-specific fertility rates calculated over time from the 2005 CDHS provide further evidence of a substantial decline in fertility at all ages. Fertility declines are proportionately greater, however, for women aged 30 and older than for women in the prime childbearing ages of 20-29 years. Women age 30 and above experienced more than a 20 percent decline in fertility in the five years preceding the survey. This pattern is common in populations experiencing a fertility decline. It occurs during a fertility transition when older women, who may be more likely to have reached their desired family size, make a greater effort to limit their births than do younger women, who are likely to have not yet achieved their desired family size. What is more unusual is that there has also been a 20 percent decline in fertility among women age 15-19, suggesting that women are waiting later to begin childbearing.

Comparison with Previous CDHS

Another way to assess fertility trends is to compare current estimates with earlier surveys. Table 5.3.2 and Figure 5.1 show the ASFRs for both the 2000 CDHS and the 2005 CDHS. The current TFR of 3.4 attests to a fairly sharp decline in fertility, from 4.0 children per woman reported in the 2000 CDHS. While fertility declined in both urban and rural areas, the change in the TFR between the 2000 CDHS and the 2005 CDHS occurred predominantly as a result of declining fertility among rural women. The TFR decreased by 0.7 children among rural women and by 0.3 children among urban women.

Declines in ASFRs between 2000 and 2005 have occurred among all age groups. The age groups in which women have demonstrated the largest decreases in fertility are 25-29, 30-34 and 35-39, with women in the 35-39 age group showing a decrease of 27 births per thousand women, and the women in the other two age groups demonstrating a decrease of 23 births per thousand women. Fertility has fallen in nearly all provinces as well, including the highest fertility provinces of Mondol Kiri/Rattanak Kiri where the TFR has declined by one child from 6.3 to 5.2. The TFR has risen, however, in Phnom Penh from 2.1 to 2.5 children.

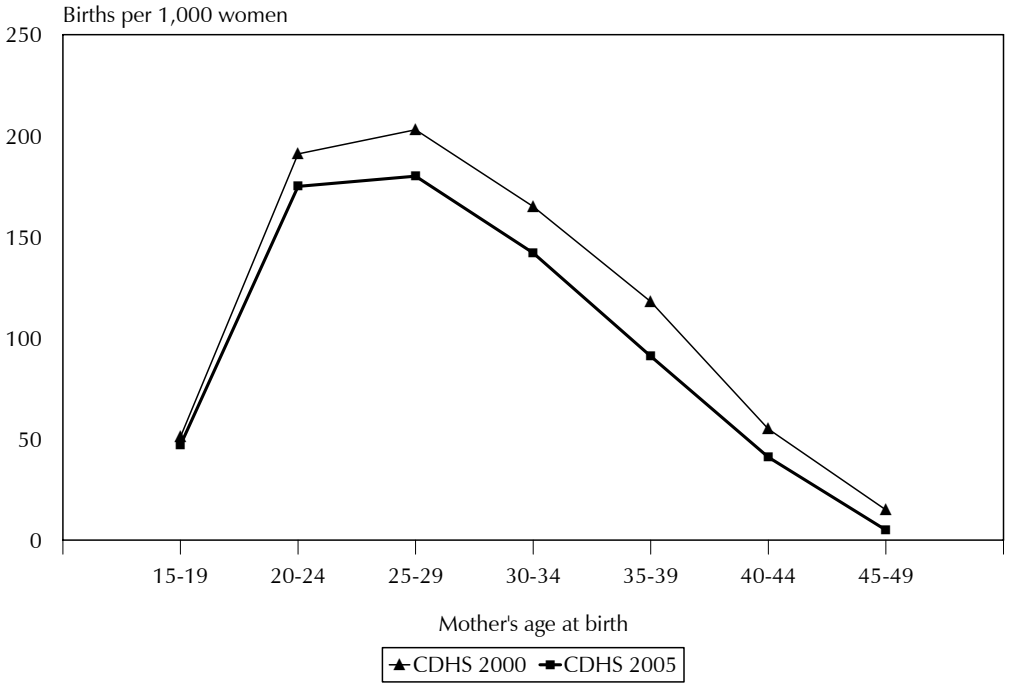
Table 5.3.2 Trends in age-specific and total fertility rates

Age-specific and total fertility rates (TFR), Cambodia 2000 and Cambodia 2005

Mother's age at birth	CDHS 2000[1]	CDHS 2005
15-19	51	47
20-24	191	175
25-29	203	180
30-34	165	142
35-39	118	91
40-44	55	41
45-49	15	5
TFR	4.0	3.4

Note: Age-specific fertility rates are per 1,000 women. CDHS 2000 rates pertain to the five-year period preceding the survey, CDHS 2005 pertain to the three-year period preceding the survey.
[1] NIS, DGH, and ORC Macro, 2001

Figure 5.1 Trends in Fertility



5.3 CHILDREN EVER BORN AND LIVING

Data on the number of children ever born reflect the accumulation of births over the past 30 years and therefore have limited relevance to current fertility levels, particularly when the country has experienced a decline in fertility. Nevertheless, information on children ever born (or parity) is useful in looking at how average family size varies across age groups and for looking at the level of primary infertility, the inability to bear children. Comparison of the differences in the mean number of children ever born and surviving reflects the cumulative effects of mortality levels during the period in which women have been bearing children.

Table 5.4 shows the percent distribution of all women and currently married women by the number of children ever born and the mean number of children ever born and mean number of children living. More than 9 out of 10 women age 15-19 (95 percent) have never given birth. However, this proportion declines quickly to 23 percent among women age 25-29 and to 9 percent or less among women age 35 and above. On average, Cambodian women have attained a parity of 5.3 children by the end of their reproductive years. This is 1.9 children more than the total fertility rate, a difference brought about by more recent dramatic declines in fertility.

The same pattern is replicated for currently married women, except that the mean number of children ever born is higher for currently married women (3.5 children) than for all women (2.3 children). The difference between all women and currently married women in the mean number of children ever born is due to the substantial proportion of young and unmarried women in the all-women category who exhibit lower fertility. It is evident that there is little extramarital childbearing: among all teenage women, only 5 percent have given birth to at least one child, while among currently married teenage women, 49 percent have begun childbearing. If rates of extramarital childbearing were high, then one would expect to see higher rates of childbearing among all teenage women.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Cambodia 2005

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women	Mean number of children ever born	Mean number of living children
ALL WOMEN															
15-19	94.8	4.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,601	0.06	0.05
20-24	51.5	27.5	16.7	3.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,045	0.74	0.70
25-29	23.3	19.0	29.6	18.3	6.9	2.1	0.6	0.1	0.1	0.0	0.0	100.0	2,051	1.76	1.59
30-34	11.0	10.1	20.8	25.4	17.4	9.5	3.6	1.4	0.6	0.1	0.1	100.0	2,082	2.83	2.52
35-39	9.3	6.5	12.3	21.0	18.3	15.9	9.0	3.8	2.4	0.8	0.6	100.0	2,229	3.61	3.17
40-44	8.7	4.4	7.3	10.8	16.9	16.9	12.0	9.6	6.3	3.2	3.9	100.0	2,112	4.63	3.97
45-49	7.2	4.0	6.9	9.2	12.0	13.6	12.9	10.5	9.0	7.0	7.6	100.0	1,703	5.30	4.43
Total	36.9	11.4	12.5	11.1	8.9	7.0	4.5	3.0	2.1	1.2	1.3	100.0	16,823	2.31	2.01
CURRENTLY MARRIED WOMEN															
15-19	51.2	44.7	3.7	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	363	0.54	0.51
20-24	17.7	45.0	29.7	6.6	1.1	0.1	0.0	0.0	0.0	0.0	0.0	100.0	1,671	1.29	1.21
25-29	6.3	21.0	37.0	23.3	8.8	2.7	0.7	0.2	0.1	0.1	0.0	100.0	1,567	2.20	1.97
30-34	2.5	9.0	22.2	28.8	20.0	11.0	4.0	1.6	0.7	0.1	0.1	100.0	1,729	3.18	2.84
35-39	1.8	5.2	11.9	22.7	20.8	18.2	10.3	4.6	2.8	0.9	0.8	100.0	1,826	4.04	3.55
40-44	2.3	2.6	6.7	10.8	18.6	18.2	14.0	11.4	7.0	3.7	4.6	100.0	1,652	5.15	4.44
45-49	2.2	2.8	5.3	8.0	12.5	14.0	14.9	11.5	10.7	8.7	9.4	100.0	1,278	5.93	4.98
Total	7.1	15.6	18.5	16.5	13.4	10.4	6.9	4.5	3.1	1.9	2.1	100.0	10,087	3.45	3.01

As would be expected, the mean number of children ever born and mean number of children surviving rise monotonically with increasing age of women. Comparison of the mean number of children ever born with the mean number of living children reveals the experience of child loss among Cambodian women. By the end of their reproductive years (age 45-49), married women in Cambodia have given birth, on average, to 3.5 children, with 3.0 surviving.

Voluntary childlessness is not common in Cambodia and currently married women with no children are likely to be those who are unable to bear children (primary infertility). While 51 percent of currently married adolescent women are childless, this proportion decreases to 6 percent among currently married women age 25-29, and continues to decline with increasing age. The percentage childless among currently married women at the end of the reproductive period (age 45-49) indicates that primary infertility among currently married women is low (2 percent).

5.4 BIRTH INTERVALS

Longer birth intervals contribute to improved health status of both mother and child (Rutstein, 2005). Infants born within two years of the birth of a previous child experience a higher risk of health problems. Table 5.5 shows the distribution of second and higher order births that occurred in the five years preceding the survey by the number of months since the previous birth, according to background characteristics.

In 2005, 18 percent of non-first births in Cambodia occurred less than 24 months after the preceding birth (compared with 21 percent in 2000), with 7 percent occurring less than 18 months after the preceding birth. Fifty-two percent of women give birth at least 36 months after the previous birth, an improvement over the comparable figure from the 2000 CDHS (45 percent). The overall median birth interval is 36.8 months. This means that half of the births in Cambodia occur within 36 months of the previous birth, and half occur after an interval of 36 months or longer. Data also indicate that birth intervals increase with increasing age of women. Twenty-five percent of births to women age 20-29 occurred within two years of the previous birth, compared with only 14 percent of births among women age 40 and above.

The median birth interval rises from 31.7 months among women age 20-29 to 44.5 months among women age 40 and above. Birth intervals do not vary much by birth order, sex of the preceding child, or urban-rural residence. However, the birth interval does vary markedly by the survival status of the preceding birth. More than four times as many births occurred within an 18-month interval when the preceding child had died than when the child was still alive. The median birth interval is 38.0 months if the previous child is living, but falls to 27.6 months if the preceding child is dead. Median birth intervals are shortest in Preah Vihear/Steung Treng (32.7) and Kampong Chhnang (32.9), and significantly longer in Phnom Penh and Kampong Cham (39.9) and Svay Rieng (39.7). Mothers with more education have longer birth intervals: those with no education have a median birth interval of 34.1 months, while those with secondary and higher levels of education have a median birth interval of 42.2 months. These results are consistent with the level of fertility: birth intervals are shorter when the TFR is high and longer when TFR is low.

Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Cambodia 2005

Background characteristic	Months since preceding birth							Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-54	55-59	60+			
Age										
15-19	*	*	*	*	*	*	*	100.0	17	*
20-29	10.1	14.9	36.0	20.7	6.7	3.9	7.6	100.0	2,150	31.7
30-39	4.8	8.7	26.4	19.1	8.2	4.8	27.9	100.0	2,638	40.8
40-49	6.9	7.4	22.6	17.4	8.7	3.9	33.1	100.0	832	44.5
Sex of preceding birth										
Male	7.2	10.7	29.0	19.5	8.1	4.3	21.4	100.0	2,906	37.1
Female	7.4	11.1	30.2	19.3	7.3	4.3	20.3	100.0	2,732	36.5
Survival of preceding birth										
Living	5.2	10.4	29.2	20.1	8.0	4.5	22.5	100.0	4,945	38.0
Dead	22.0	14.4	32.0	14.1	5.4	2.8	9.4	100.0	692	27.6
Birth order										
2-3	8.0	11.7	30.0	19.3	7.0	4.4	19.5	100.0	3,051	36.1
4-6	5.4	9.3	28.4	19.7	8.5	4.4	24.4	100.0	1,914	38.8
7+	9.3	11.7	30.9	19.2	8.4	3.6	16.9	100.0	673	34.6
Residence										
Urban	7.7	12.3	25.8	17.8	6.3	4.1	26.1	100.0	749	37.6
Rural	7.2	10.7	30.2	19.6	7.9	4.3	20.1	100.0	4,889	36.7
Province										
Banteay Mean Chey	9.3	9.3	25.5	18.2	7.6	7.3	22.8	100.0	243	38.1
Kampong Cham	4.0	7.8	28.2	22.6	8.0	4.7	24.8	100.0	628	39.9
Kampong Chhnang	7.5	14.6	34.9	17.9	5.6	2.7	16.8	100.0	239	32.9
Kampong Speu	6.6	12.9	33.9	23.5	5.8	3.0	14.3	100.0	350	34.8
Kampong Thom	8.9	8.4	33.7	15.5	7.0	5.1	21.5	100.0	292	35.7
Kandal	2.6	10.0	30.7	20.4	10.6	2.1	23.8	100.0	491	39.2
Kratie	7.1	11.3	32.4	21.2	6.2	5.3	16.4	100.0	151	35.5
Phnom Penh	7.8	12.6	24.1	18.9	5.6	6.3	24.7	100.0	389	39.9
Prey Veng	8.5	7.4	27.5	18.1	9.2	5.4	23.9	100.0	457	39.4
Pursat	9.4	7.3	26.0	24.7	8.8	5.1	18.9	100.0	167	38.8
Siem Reap	9.1	14.9	32.5	16.4	8.7	2.9	15.4	100.0	473	33.1
Svay Rieng	5.7	7.3	28.9	17.8	5.6	8.2	26.5	100.0	192	39.7
Takeo	6.2	9.8	28.3	21.7	9.4	3.8	20.8	100.0	383	37.3
Otdar Mean Chey	10.8	8.6	27.2	19.8	7.0	4.6	22.0	100.0	79	37.5
Battambang/Krong Pailin	7.6	13.6	27.9	17.6	7.3	3.6	22.4	100.0	383	36.3
Kampot/Krong Kep	9.5	12.9	29.8	16.9	8.3	3.4	19.2	100.0	274	34.9
Krong Preah Sihanouk/ Kaoh Kong	11.5	13.6	27.0	19.0	7.3	3.2	18.4	100.0	159	35.1
Preah Vihear/Steung Treng	8.4	12.1	37.4	19.5	5.1	3.4	14.0	100.0	167	32.7
Mondol Kiri/Rattanak Kiri	11.0	15.7	27.4	17.6	6.1	4.6	17.7	100.0	122	34.0
Education										
No schooling	10.7	12.1	31.4	18.1	6.9	3.4	17.5	100.0	1,451	34.1
Primary	6.4	10.7	30.0	20.1	8.2	4.4	20.3	100.0	3,328	37.0
Secondary and higher	4.9	9.5	25.0	19.1	7.3	5.5	28.7	100.0	859	42.2
Wealth quintile										
Lowest	10.3	11.6	33.9	19.9	5.9	3.2	15.1	100.0	1,606	33.7
Second	7.6	12.2	31.9	18.0	7.9	3.9	18.5	100.0	1,343	35.2
Middle	5.0	10.3	26.6	20.5	8.8	4.9	23.9	100.0	1,006	39.3
Fourth	5.4	8.3	27.4	20.8	9.7	5.2	23.2	100.0	887	40.0
Highest	5.5	10.9	23.0	17.7	7.5	5.5	29.9	100.0	796	43.4
Total	7.3	10.9	29.6	19.4	7.7	4.3	20.9	100.0	5,638	36.8

Note: First-order births are excluded from this table. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

5.5 AGE AT FIRST BIRTH

Early age at childbearing has a detrimental effect on the health of both mother and child. It also frequently leads to a longer reproductive span and higher level of fertility. Table 5.6 presents the median age at first birth and the percentage of women who first gave birth by specific exact ages, by five-year age groups.

The median age at first birth is 21.8 years for the youngest cohort (age 25-29) for whom a median could be computed and varies between 21.7 and 22.5 for the older cohorts, with no discernible pattern in variation.

Table 5.6 Age at first birth

Percentage of women who gave birth by specific exact ages, percentage who have never given birth, and median age at first birth, by current age, Cambodia 2005

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	0.2	na	na	na	na	94.8	3,601	a
20-24	0.4	8.9	26.3	na	na	51.5	3,045	a
25-29	0.6	12.2	29.9	51.5	69.6	23.3	2,051	21.8
30-34	0.9	8.5	29.5	53.3	73.4	11.0	2,082	21.7
35-39	0.4	6.8	23.4	44.2	70.6	9.3	2,229	22.5
40-44	0.2	8.9	31.6	52.0	72.1	8.7	2,112	21.8
45-49	0.6	6.1	21.0	47.5	75.2	7.2	1,703	22.2

na = Not applicable due to censoring
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 5.7 presents the median age at first birth by background characteristics and age at the time of the survey. The median age at first birth is higher in urban areas than in rural areas, with a difference of one year among women age 25-49. Kampong Chnang has the highest median age at first birth (23.3), while Mondol Kiri/Rattanak Kiri has the lowest median age at first birth (20.7). While there is a positive relationship between educational attainment and median age at first birth, there is only a difference when a woman has secondary or higher education. There is no difference in median age at first birth between women with no education and women with primary education. There is no clear pattern in median age at first birth by wealth quintile.

Table 5.7 Median age at first birth

Median age at first birth among women age 25-49, by current age, according to background characteristics, Cambodia 2005

Background characteristic	Age 25-29	30-34	35-39	40-44	45-49	Women age 25-49
Residence						
Urban	23.9	22.2	23.0	22.2	22.8	22.8
Rural	21.6	21.6	22.5	21.7	22.1	21.9
Province						
Banteay Mean Chey	21.9	20.8	21.8	21.5	22.1	21.5
Kampong Cham	21.7	21.8	22.6	22.1	21.7	22.0
Kampong Chhnang	22.3	22.9	24.0	24.1	23.3	23.3
Kampong Speu	21.7	21.5	22.3	21.8	22.4	22.0
Kampong Thom	23.3	21.6	22.6	21.6	23.1	22.4
Kandal	21.7	21.9	23.0	21.8	22.3	22.2
Kratie	22.2	21.5	22.8	22.2	21.7	22.1
Phnom Penh	24.2	23.3	22.2	22.0	22.2	22.7
Prey Veng	22.0	21.7	22.2	21.5	21.8	21.8
Pursat	20.3	20.9	21.9	21.5	21.9	21.5
Siem Reap	22.2	22.3	23.4	22.2	22.6	22.4
Svay Rieng	20.7	21.2	22.1	21.0	22.3	21.6
Takeo	20.9	21.9	22.6	22.3	23.1	22.3
Otdar Mean Chey	20.0	19.8	21.4	20.7	22.0	20.8
Battambang/Krong Pailin	22.5	21.6	23.2	21.6	22.0	22.1
Kampot/Krong Kep	21.3	21.2	22.0	21.1	22.0	21.6
Krong Preah Sihanouk & Kaoh Kong	20.4	21.1	22.9	22.1	22.0	21.7
Preah Vihear/Steung Treng	20.7	20.8	21.7	20.5	20.1	20.9
Mondol Kiri/Rattanak Kiri	21.7	19.5	20.6	20.6	21.4	20.7
Education						
No schooling	21.5	21.4	22.3	21.6	22.3	21.9
Primary	21.5	21.5	22.2	21.6	22.1	21.8
Secondary and higher	23.3	22.2	23.5	24.8	22.8	23.1
Wealth quintile						
Lowest	21.6	22.0	22.3	22.5	23.5	22.3
Second	21.6	21.7	22.5	22.0	21.7	21.9
Middle	21.5	21.3	22.5	21.7	22.1	21.9
Fourth	21.8	21.3	22.4	21.1	22.0	21.7
Highest	23.2	22.3	22.8	21.5	22.3	22.4
Total	21.8	21.7	22.5	21.8	22.2	22.0

5.6 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage fertility is a major health concern because teenage mothers and their children are at high risk of illness and death. Childbearing during the teenage years can also have dire social consequences, curtailing the educational and employment opportunities of women. Early initiation into childbearing is also often associated with higher lifetime levels of fertility. Table 5.8 presents the proportion of women age 15-19 (teenagers) who are mothers or pregnant with their first child, by background characteristics.

Table 5.8 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Cambodia 2005

Background characteristic	Percentage who: Have had a live birth	Percentage who: Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	0.0	0.0	0.0	807
16	0.9	1.2	2.1	767
17	3.7	2.4	6.1	724
18	7.9	4.3	12.2	700
19	16.1	6.6	22.7	603
Residence				
Urban	3.3	2.6	6.0	722
Rural	5.6	2.7	8.3	2,880
Province				
Banteay Mean Chey	7.3	3.4	10.7	131
Kampong Cham	4.1	1.8	5.9	376
Kampong Chhnang	5.0	3.5	8.5	113
Kampong Speu	6.1	1.7	7.8	174
Kampong Thom	6.6	3.4	10.0	155
Kandal	5.3	1.7	7.0	350
Kratie	8.2	4.7	12.9	65
Phnom Penh	3.3	1.3	4.6	486
Prey Veng	2.1	4.6	6.7	239
Pursat	4.9	2.1	7.0	129
Siem Reap	6.3	5.5	11.8	268
Svay Rieng	5.5	5.6	11.1	139
Takeo	2.9	1.2	4.1	222
Otdar Mean Chey	12.2	3.2	15.4	40
Battambang/Krong Pailin	6.6	2.0	8.6	336
Kampot/Krong Kep	4.6	1.8	6.4	191
Krong Preah Sihanouk & Kaoh Kong	4.6	2.8	7.3	80
Preah Vihear/Steung Treng	9.7	3.7	13.4	62
Mondol Kiri/Rattanak Kiri	15.9	5.9	21.8	44
Education				
No schooling	15.0	6.4	21.4	283
Primary	6.4	2.5	9.0	1,771
Secondary and higher	1.9	2.2	4.1	1,548
Wealth quintile				
Lowest	9.0	2.3	11.2	518
Second	6.3	3.2	9.5	584
Middle	5.4	2.6	7.9	690
Fourth	4.2	3.4	7.6	755
Highest	3.3	2.2	5.4	1,055
Total	5.2	2.7	7.8	3,601

A small percentage of women age 15-19 have become mothers or are currently pregnant with their first child (8 percent). The percentage of women who have begun childbearing increases with age, from none among women age 15, to 23 percent among women age 19. Six percent of urban girls begin childbearing in their teens and 8 percent of rural girls have also begun their childbearing before the age of twenty. The level of teenage fertility is strongly associated with education. One in five teenagers who have never been to school have begun childbearing, compared with one in ten teenagers who have a primary school education, and fewer than one in 20 teenagers with secondary or higher education. In Cambodia, any education is associated with lower proportions of early childbearing. However, the proportion of women age 15-19 who have had no schooling is small (8 percent of all young women age 15-19). The percentage of teenagers who have begun childbearing is lowest in Takeo (4 percent) and highest in Mondol Kiri/Rattanak Kiri (22 percent).

PRACTICE OF ABORTION 6

In many countries in the developing world, there are very little data on the practice of abortion. It is illegal in a number of countries, often has negative social connotations, and is often considered against religious principles. The practice of abortion was legalized in Cambodia in 1997. According to the 1997 law, abortions can be conducted only by medical doctors, medical practitioners or midwives authorized by the Ministry of Public Health, and can only be carried out in a hospital, health center, health clinic or maternity ward. Abortions can only be legally conducted before the 12th week of pregnancy unless one of a number of specific conditions are met, which permit later abortions (Kram, legal decree, November 12, 1997 on abortion).

In order to better understand the practice of abortion in Cambodia, questions on the practice were integrated into the reproductive section of the CDHS questionnaire. The results present an estimation of the frequency of abortion over women's lifetime, and of the frequency of abortion in the past five years. Information was collected on the person who performed the abortion, the pregnancy duration, the place where the abortion took place, and the persons who assisted with the abortion. Pregnancy outside of marriage is not socially acceptable in Cambodia, thus it is likely that not all women who have had an abortion would be willing to report having done so. Thus, abortion statistics may likely be underestimates of the true level of abortion. Women age 15-49 account for one in five women of reproductive age. If there is significant under-reporting of abortions among women in this age group, it would affect the overall estimate of the abortion rate in the population.

6.1 Number of Induced Abortions

Table 6.1 presents the percent distribution of all women age 15 to 49 by the number of induced abortions they have had over their lifetime, by background characteristics. In Cambodia, eight percent of women age 15 to 49 reported having had one or more abortions in their lifetime.

Women are more likely to resort to abortion as they get older. Less than one percent of women age 15 to 19 reported having had an abortion. Fifteen percent of women over age 34 have had at least one abortion. Abortion also increases as women have more living children. Less than one percent of women with no children reported ever having had an abortion. As many as one in five women with four children has had at least one abortion. The proportion declines somewhat among women with five, six, or more children, but remains above ten percent.

The practice of abortion varies by urban/rural residence. Urban women are more likely than rural women to have an abortion (11 percent compared with 7 percent). Urban women are also more likely to have more than one abortion. The percent of women who have relied on abortion varies across provinces. As many as 16 percent of women in Kampong Cham have had an abortion, and over 10 percent of women in Banteay Mean Chey, Battambang/Krong Pailin, and Phnom Penh have had abortions. On the other hand, only 2 and 3 percent of women in Mondol Kiri/Rattanak Kiri and Kampong Thom reported having had an abortion.

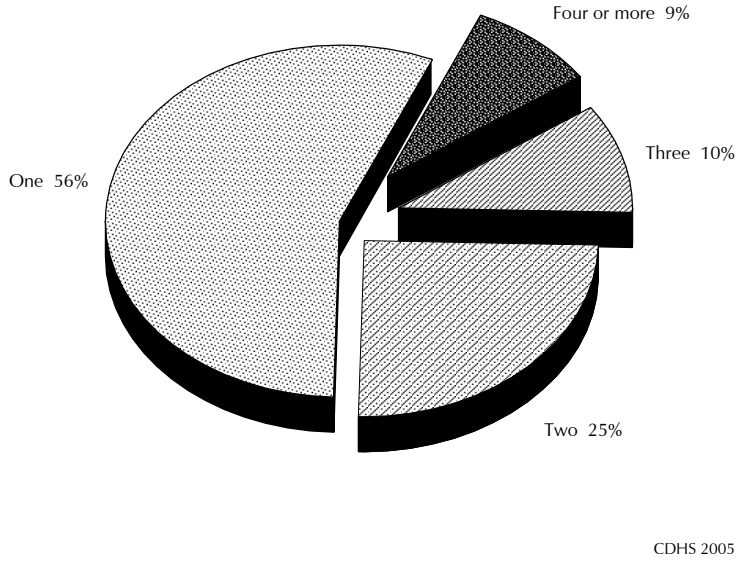
Table 6.1 Number of induced abortions

Percent distribution of women by number of induced abortions during their lifetime, according to background characteristics, Cambodia 2005

Background characteristic	Number of abortions						Total	Number of women
	None	1	2	3	4+	Missing		
Age								
15-19	99.6	0.3	0.0	0.1	0.0	0.0	100.0	3,601
20-24	98.1	1.4	0.4	0.1	0.0	0.0	100.0	3,045
25-29	94.8	3.1	1.2	0.5	0.4	0.1	100.0	2,051
30-34	89.2	5.9	2.6	0.9	1.1	0.4	100.0	2,082
35-39	84.9	8.2	3.5	1.7	1.2	0.4	100.0	2,229
40-44	84.0	7.5	4.3	1.9	1.8	0.5	100.0	2,112
45-49	84.9	8.4	3.1	1.7	1.5	0.4	100.0	1,703
Number of living children (including current pregnancy)								
None	99.5	0.3	0.1	0.0	0.0	0.0	100.0	5,974
1	95.7	2.8	0.6	0.4	0.3	0.1	100.0	2,205
2	90.3	6.1	2.4	0.5	0.5	0.3	100.0	2,494
3	86.8	7.0	3.2	1.5	1.0	0.4	100.0	2,110
4	80.1	10.7	4.4	2.3	2.1	0.4	100.0	1,531
5	82.9	8.8	3.9	1.6	2.4	0.3	100.0	1,123
6+	85.9	5.6	4.0	2.3	1.6	0.5	100.0	1,386
Residence								
Urban	89.0	5.6	2.6	1.4	1.3	0.2	100.0	2,973
Rural	92.7	4.0	1.7	0.7	0.6	0.2	100.0	13,850
Province								
Banteay Mean Chey	89.8	4.4	2.8	0.9	1.9	0.2	100.0	650
Kampong Cham	84.1	9.4	3.7	1.8	0.9	0.1	100.0	2,116
Kampong Chhnang	94.9	2.3	1.3	0.2	0.3	1.0	100.0	556
Kampong Speu	94.4	2.9	1.5	0.5	0.5	0.3	100.0	870
Kampong Thom	96.9	1.3	0.5	0.3	0.4	0.5	100.0	799
Kandal	93.6	4.1	1.3	0.5	0.3	0.2	100.0	1,612
Kratie	95.7	2.0	1.3	0.5	0.4	0.0	100.0	331
Phnom Penh	86.9	7.2	2.6	1.9	1.2	0.1	100.0	1,896
Prey Veng	95.7	2.9	1.0	0.0	0.4	0.0	100.0	1,395
Pursat	92.7	4.8	1.2	0.6	0.3	0.4	100.0	480
Siem Reap	96.4	2.2	0.7	0.4	0.2	0.0	100.0	1,200
Svay Rieng	93.0	3.6	1.4	0.3	1.2	0.5	100.0	658
Takeo	96.2	2.4	1.0	0.2	0.1	0.0	100.0	1,102
Otdar Mean Chey	92.9	3.5	2.4	0.8	0.2	0.2	100.0	177
Battambang /Krong Pailin	88.2	4.1	3.8	2.1	1.9	0.0	100.0	1,247
Kampot/Krong Kep	96.0	2.5	0.5	0.1	0.2	0.7	100.0	839
Krong Preah Sihanouk/ Kaoh Kong	91.5	2.7	2.7	0.8	1.7	0.6	100.0	379
Preah Vihear/Steung Treng	96.4	2.2	0.8	0.1	0.5	0.1	100.0	301
Mondol Kiri/Rattanak Kiri	98.1	0.8	0.7	0.0	0.3	0.1	100.0	215
Education								
No education	91.2	5.3	1.7	0.8	0.8	0.2	100.0	3,270
Primary	91.4	4.4	2.1	1.0	0.8	0.3	100.0	9,389
Secondary and higher	94.2	3.2	1.5	0.6	0.4	0.1	100.0	4,165
Total	92.1	4.3	1.9	0.8	0.7	0.2	100.0	16,823

Figure 6.1 presents the distribution of women who report having at least one induced abortion according to the number of abortions they have had. While most women who have had an abortion have had only one, over 40 percent of women who have had an abortion have had more than one. One in four women who have had abortions report having had two abortions, and one in five women who have had abortions report having had three or more induced abortions. The percent of women who have multiple abortions among women who have had abortions has increased over the past five years, from 29 percent (2000 CDHS) to 44 percent (2005 CDHS).

Figure 6.1 **Distribution of Number of Abortions for Women Who Report Having an Induced Abortion**



6.2 ABORTION IN THE PAST FIVE YEARS

In order to obtain information on the recent practice of abortion and to avoid interviewing women about events in the distant past, which can be difficult to recall, detailed questions concerning abortion were asked only to those women who have had an abortion since 2000. In Table 6.2 and subsequent tables, education of the respondent has been grouped into two categories: no education and primary education or higher, due to the relatively small number of cases.

Pregnancy duration at the time of abortion

Table 6.2 shows the percentage of women who reported having an abortion in the past five years and the distribution of those women by their pregnancy duration at the time of abortion. Overall, 4 percent of women had an abortion in the five years preceding the survey. The majority of these women aborted their pregnancy between the second and fourth month of pregnancy, four in ten had the abortion during the first two months of pregnancy, and 3 percent had the abortion after the fourth month of pregnancy.

Women with three or four living children are more likely than other women to have had an abortion, over half of whom had the abortion between the second and fourth month of pregnancy. Two-thirds of women with five or more living children had their abortion between the second and fourth month of pregnancy. Urban women are more likely than rural women to have had their abortions within the first two months of pregnancy, while the majority of rural women had their abortions between the second and fourth month of pregnancy. While the percentage of women who recently had an abortion does not vary by education, the duration of pregnancy at the time of abortion does differ. Women with some education are more likely than women with no education to have had their abortion within the first two months of pregnancy (44 versus 24 percent, respectively). The majority of women with no education had their abortion between the second and fourth month of pregnancy (71 percent).

Table 6.2 Pregnancy duration at the time of abortion

Percentage of women who had at least one induced abortion in the past five years and percent distribution of the last abortion during the past five years by pregnancy duration at the time of abortion, according to background characteristics, Cambodia 2005

Background characteristic	Percentage with at least one abortion in the past 5 years	Number of women	Pregnancy duration at the time of last abortion			Number of women with abortion in the past 5 years
			<2 months	2-4 months	5+ months	
Age						
15-34	3.3	10,780	40.8	55.1	4.0	359
35-49	3.7	6,043	38.3	59.6	2.1	223
Number of living children (including current pregnancy)						
0-2	2.4	10,673	41.1	53.0	5.6	255
3-4	6.2	3,641	41.1	56.8	2.1	224
5+	4.1	2,509	33.8	66.2	0.0	103
Residence						
Urban	4.9	2,973	54.5	43.0	2.0	145
Rural	3.2	13,850	35.0	61.4	3.7	437
Education						
No education	3.8	3,270	24.0	70.7	5.1	124
Primary and higher	3.4	13,553	44.1	53.0	2.7	459
Total	3.5	16,823	39.9	56.8	3.3	582

Place of abortion

Women who had an abortion in the past five years were asked where the most recent abortion took place (Table 6.3). Forty-eight percent of women had their abortions in a health facility, 11 percent in a public facility and 37 percent in a private facility. About the same proportion (45 percent) of abortions took place at home, 12 percent in the respondent's home and 33 percent in someone else's home. These figures show that abortions are as likely to have taken place in a health facility as at home. A higher percentage of urban women had their abortions within a health facility (58 percent) than did rural women (45 percent).

Table 6.3 Place of abortion

Percent distribution of the last abortion during the past five years by place of abortion, according to background characteristics, Cambodia 2005

Background characteristic	Place of abortion					Total	Number of women with abortion in the past 5 years
	Public health facility	Private health facility	Respondent home	Other home	Other/ missing		
Age							
15-34	10.8	35.3	11.5	33.7	8.7	100.0	359
35-49	11.8	38.8	11.7	31.7	5.9	100.0	223
Pregnancy duration at the time of last abortion							
<2 months	8.9	40.2	11.7	31.4	7.7	100.0	232
2-4 months	12.7	34.9	10.2	34.4	7.8	100.0	331
5+ months	*	*	*	*	*	100.0	19
Residence							
Urban	13.7	44.0	5.9	33.3	3.1	100.0	145
Rural	10.4	34.2	13.5	32.8	9.1	100.0	437
Education							
No education	11.8	32.6	15.9	28.4	11.3	100.0	124
Primary and higher	11.1	37.8	10.4	34.1	6.6	100.0	459
Total	11.2	36.7	11.6	32.9	7.6	100.0	582

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

Persons who helped with the abortion

Women who had an abortion in the past five years were asked to identify the type of person or persons who assisted with their last abortion. If more than one person attended to the abortion, only the most qualified person is presented in Table 6.4. Four in five women received help from a doctor, nurse, midwife, or other health worker. Seven percent of women received help from a traditional birth attendant or Kru Khmer, and 8 percent did not receive help from anyone. There are no differentials in assistance at abortion by the woman's age. However, there are variations by pregnancy duration. Women who had their abortion in the first two months of pregnancy are more likely than women who had the abortion at a later stage of pregnancy to have no assistance (11 percent compared with 6 percent). Urban women are more likely to have help from a health professional (87 percent) compared with rural women (76 percent). On the other hand, while 8 percent of rural women received help from a traditional birth attendant and 8 percent from a relative or friend, the corresponding proportion for urban woman is 2 percent and 3 percent, respectively.

Table 6.4 Persons who helped with abortion

Percent distribution of the last abortion during the past five years by the most qualified person who helped with the abortion, according to background characteristics, Cambodia 2005

Background characteristic	Persons who helped the last abortion					Total	Number of women with abortion in the past 5 years
	Doctor/nurse/ midwife/ other health worker	Traditional birth attendant/ Kru Khmer	Relative/ friend/ other	No one	Missing		
Age							
15-34	79.4	6.2	6.5	7.4	0.5	100.0	359
35-49	78.1	7.3	6.2	8.4	0.0	100.0	223
Pregnancy duration at the time of last abortion							
<2 months	81.9	2.7	5.0	10.5	0.0	100.0	232
2-4 months	77.6	7.7	7.8	6.3	0.6	100.0	331
5+ months	*	*	*	*	*	100.0	19
Residence							
Urban	87.3	1.6	3.2	8.0	0.0	100.0	145
Rural	76.1	8.3	7.5	7.7	0.4	100.0	437
Education							
No education	71.1	12.6	11.2	5.0	0.0	100.0	124
Primary and higher	81.0	5.0	5.1	8.5	0.4	100.0	459
Total	78.9	6.6	6.4	7.8	0.3	100.0	582

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

FAMILY PLANNING 7

This chapter presents information from the 2005 CDHS on contraceptive knowledge, attitudes and behaviour. Comparisons are also made, where appropriate, with findings from the 2000 CDHS to evaluate changes over the past five years.

7.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Acquiring knowledge about family planning is an important step towards gaining access to and using a suitable contraceptive method in a timely and effective manner. Individuals who have adequate information about the available methods of contraception are better able to make choices about planning their families. Thus, one of the main objectives of the 2005 CDHS was to assess the level of knowledge of family planning methods among women of reproductive age. Data on knowledge of contraception was collected in two ways. First, respondents were asked to mention all the methods of contraception that they had heard of spontaneously. For methods not mentioned spontaneously, the interviewer described the method and probed for whether the respondent recognized it. Prompted and unprompted knowledge are combined in this report.

Information was collected for 11 modern contraceptive methods: female and male sterilization, daily pills, monthly pills, IUD, injectables, implants, male condoms, female condoms, lactational amenorrhoea method (LAM), and emergency contraception. Information was also collected on two traditional methods (periodic abstinence and withdrawal). In addition, provision was made in the questionnaire to record any other method named spontaneously by the respondents.

Table 7.1 shows knowledge of contraception among all women and currently married women age 15-49. Knowledge of contraceptive methods is high with 99 percent of all women and 99 percent of currently married women knowing at least one modern method of contraception. Knowledge of traditional methods is lower. Forty-eight percent of all women and 62 percent of currently married women know at least one traditional method. Daily pills are the most widely known method (97 percent of all women and 98 percent of currently married women), followed closely by male condoms (95 percent of all women and 96 percent of currently married women) and injectables (93 percent of all women and 97 percent of currently married women).

Table 7.1 Knowledge of contraceptive methods

Percentage of all women and currently married women who know any contraceptive method, by specific method, Cambodia 2005

Method	All women	Currently married women
Any method	98.6	99.4
Any modern method	98.6	99.3
Female sterilization	68.1	76.6
Male sterilization	46.5	53.4
Daily pill	96.8	98.2
Monthly pill	57.6	65.3
IUD	84.4	90.7
Injectables	93.1	96.9
Implants	68.5	76.2
Male condom	95.1	96.4
Female condom	18.8	18.9
Lactational amenorrhea (LAM)	29.4	35.0
Emergency contraception	4.9	5.4
Any traditional method	47.5	61.5
Rhythm	31.9	39.5
Withdrawal	35.4	49.2
Folk method	0.5	0.7
Mean number of methods known	7.3	8.0
Number of women	16,823	10,087

The mean number of methods known, a rough indicator of the breadth of knowledge of family planning methods, is high in Cambodia. Breadth of contraceptive knowledge is slightly higher among currently married women (eight methods) than all women (seven methods).

With almost all currently married women knowing at least one method of contraception, there is very little variation in knowledge by background characteristics (Table 7.2). Knowledge of any method of contraception is notably lower in Mondol Kiri/Rattanak Kiri, where only three-quarters of women have ever heard of any method or any modern method of contraception.

Table 7.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women who have heard of at least one contraceptive method and who have heard of at least one modern method, by background characteristics, Cambodia 2005

Background characteristic	Heard of any method	Heard of any modern method[1]	Number of women
Age			
15-19	97.3	97.3	363
20-24	99.2	99.0	1,671
25-29	99.3	99.3	1,567
30-34	99.6	99.6	1,729
35-39	99.7	99.6	1,826
40-44	99.5	99.5	1,652
45-49	99.3	99.3	1,278
Residence			
Urban	99.9	99.9	1,572
Rural	99.3	99.2	8,515
Province			
Banteay Mean Chey	99.7	99.7	432
Kampong Cham	99.4	99.4	1,282
Kampong Chhnang	100.0	100.0	328
Kampong Speu	99.8	99.8	537
Kampong Thom	99.6	99.4	486
Kandal	99.6	99.6	929
Kratie	97.3	97.3	219
Phnom Penh	100.0	100.0	946
Prey Veng	100.0	99.8	880
Pursat	100.0	100.0	268
Siem Reap	100.0	100.0	711
Svay Rieng	100.0	100.0	425
Takeo	100.0	100.0	688
Otdar Mean Chey	100.0	100.0	115
Battambang/Krong Pailin	100.0	100.0	704
Kampot/Krong Kep	100.0	100.0	527
Krong Preah Sihanouk/Kaoh Kong	99.8	99.8	247
Preah Vihear/Steung Treng	97.1	97.1	208
Mondol Kiri/Rattanak Kiri	75.9	75.3	155
Education			
No schooling	98.0	97.8	2,291
Primary	99.7	99.7	5,959
Secondary and higher	100.0	100.0	1,836
Wealth quintile			
Lowest	98.1	98.0	1,957
Second	99.1	99.1	2,028
Middle	99.7	99.6	1,952
Fourth	100.0	100.0	2,037
Highest	99.9	99.9	2,112
Total	99.4	99.3	10,087

[1] Female sterilization, male sterilization, daily pill, monthly pill, IUD, injectables, implants, male condom, female condom, lactational amenorrhea method (LAM), and emergency contraception

Overall, knowledge of contraception has risen in the past five years. Knowledge of any method of contraception among all women has increased from 92 percent in 2000 to 99 percent in 2005. Some of the greatest increases in knowledge were shown in female condoms and LAM. Knowledge of female condoms increased from five percent to 19 percent among all women and currently married women, and knowledge of LAM increased from seven percent to 29 percent among all women and from nine percent to 35 percent among currently married women. Knowledge of any traditional method increased as well. On the other hand, knowledge of the monthly pill decreased from 71 percent to 58 percent among all women and from 77 percent to 65 percent among currently married women.

7.2 EVER USE OF CONTRACEPTIVE METHODS

All women interviewed in the 2005 CDHS who said that they had heard of a method of family planning were asked whether they had ever used that method. Table 7.3 shows the percentage of all women and currently married women who have ever used specific methods of family planning, by age.

Table 7.3 Ever use of contraception

Percentage of all women and currently married women who have ever used any contraceptive method, by specific method and age, Cambodia 2005

			Modern method												Traditional method			
Age	Any method	Any modern method	Female sterilization	Male sterilization	Daily pill	Monthly pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Emergency contraception	Any traditional method	Rhythm	Withdrawal	Folk method	Number of women
ALL WOMEN																		
15-19	3.2	2.5	0.0	0.0	1.5	0.2	0.2	0.3	0.0	0.9	0.0	0.1	0.0	1.4	0.6	1.1	0.1	3,601
20-24	31.5	24.0	0.1	0.0	15.8	2.9	0.8	7.7	0.2	4.6	0.0	0.9	0.1	13.4	5.5	10.2	0.1	3,045
25-29	54.2	45.9	0.7	0.1	28.8	6.2	2.6	17.1	0.3	7.9	0.1	2.2	0.0	22.0	10.1	16.0	0.4	2,051
30-34	62.8	53.0	1.4	0.0	32.0	8.2	4.6	24.4	1.0	7.8	0.0	1.2	0.2	25.7	11.8	18.2	0.3	2,082
35-39	63.1	54.2	1.9	0.4	31.2	8.7	6.0	26.2	0.7	6.9	0.1	2.0	0.1	25.2	12.2	17.6	0.4	2,229
40-44	56.0	47.3	2.3	0.1	24.1	7.6	5.2	24.5	0.4	4.5	0.0	1.7	0.0	21.7	9.0	15.6	0.5	2,112
45-49	42.3	34.8	2.6	0.1	15.5	3.9	4.3	19.0	0.1	3.5	0.3	1.3	0.0	17.2	10.1	10.9	0.1	1,703
Total	40.4	33.7	1.1	0.1	19.4	4.8	2.9	15.0	0.4	4.8	0.1	1.2	0.1	16.4	7.6	11.7	0.2	16,823
CURRENTLY MARRIED WOMEN																		
15-19	30.0	24.1	0.0	0.3	14.4	2.3	1.8	3.5	0.0	7.9	0.0	0.6	0.1	13.3	5.9	10.0	0.5	363
20-24	54.5	41.6	0.2	0.0	27.1	4.8	1.4	13.6	0.4	7.8	0.0	1.6	0.1	23.2	9.4	17.6	0.2	1,671
25-29	68.0	57.9	0.9	0.1	36.2	7.5	3.4	22.0	0.3	10.0	0.1	2.8	0.0	27.6	12.4	20.4	0.5	1,567
30-34	72.1	60.2	1.5	0.1	36.5	9.3	5.3	28.0	1.2	9.2	0.0	1.5	0.2	30.2	13.8	21.5	0.3	1,729
35-39	72.7	62.5	2.3	0.5	36.7	9.7	7.0	30.1	0.7	7.6	0.2	2.3	0.1	28.9	13.9	20.2	0.5	1,826
40-44	66.7	56.6	2.6	0.1	28.9	9.0	6.2	29.7	0.6	5.7	0.0	2.0	0.0	25.6	10.3	18.9	0.6	1,652
45-49	49.4	41.2	3.0	0.2	19.0	4.8	4.4	22.9	0.1	3.9	0.2	1.6	0.0	20.0	11.7	12.6	0.1	1,278
Total	63.4	52.9	1.7	0.2	30.7	7.5	4.6	23.8	0.6	7.5	0.1	1.9	0.1	25.8	11.8	18.5	0.4	10,087

LAM = Lactational amenorrhea method

Six in ten currently married women have used a contraceptive method: 53 percent have used a modern method, and 26 percent have used a traditional method. The methods most commonly used by married women are daily pills (31 percent), injectables (24 percent), withdrawal (19 percent), and periodic abstinence (12 percent).

Ever use of contraception increases steadily with age until the late thirties, after which ever use of contraception gradually declines. Among currently married women, ever use of any method rises from 30 percent among women age 15-19 to 73 percent among women age 35-39.

7.3 CURRENT USE OF CONTRACEPTIVE METHODS

The level of current use of contraceptive methods is one of the indicators most frequently used to assess the success of family planning program activities. It is also widely used as a measure in analysing the determinants of fertility. This section focuses on the levels and differentials in current use of family planning in Cambodia.

Current contraceptive use among all women and currently married women is presented in Table 7.4 by age group. Forty percent of married women are currently using a method of family planning. This includes 27 percent who are using a modern method and 13 percent who are using a traditional method. The most widely used method is the daily pill (11 percent) followed by withdrawal (8 percent) and injectables (8 percent).

Table 7.4 Current use of contraception by age

Percent distribution of all women and currently married women by contraceptive method currently used, according to age, Cambodia 2005

			Modern method									Any tradi-	Traditional method					
Age	Any method	Any modern method	Female sterili- zation	Male sterili- zation	Daily pill	Monthly pill	IUD	Inject- ables	Im- plants	Male con- dom	LAM	tional method	Rhythm	With- drawal	Folk method	Not currently using	Total	Number of women
ALL WOMEN																		
15-19	2.1	1.4	0.0	0.0	0.7	0.1	0.2	0.2	0.0	0.3	0.0	0.7	0.1	0.6	0.0	97.9	100.0	3,601
20-24	19.1	12.9	0.1	0.0	5.9	0.9	0.5	3.5	0.1	1.8	0.1	6.2	1.8	4.3	0.0	80.9	100.0	3,045
25-29	31.8	23.4	0.7	0.1	11.3	1.2	1.0	6.1	0.0	2.9	0.0	8.5	2.7	5.8	0.0	68.2	100.0	2,051
30-34	40.8	27.9	1.4	0.0	10.9	1.5	1.8	8.2	0.6	3.2	0.2	12.9	4.8	8.2	0.0	59.2	100.0	2,082
35-39	40.8	28.4	1.9	0.1	11.0	1.9	2.4	8.8	0.1	2.1	0.1	12.4	4.5	7.8	0.1	59.2	100.0	2,229
40-44	33.6	22.1	2.3	0.1	7.7	1.3	1.5	7.2	0.1	1.8	0.1	11.5	3.8	7.6	0.1	66.4	100.0	2,112
45-49	16.5	9.4	2.6	0.1	2.5	0.2	0.6	2.2	0.0	1.0	0.0	7.0	3.4	3.5	0.1	83.5	100.0	1,703
Total	24.1	16.4	1.1	0.1	6.6	0.9	1.1	4.7	0.1	1.7	0.1	7.7	2.7	5.0	0.0	75.9	100.0	16,823
CURRENTLY MARRIED WOMEN																		
15-19	20.8	13.7	0.0	0.0	7.0	0.6	1.7	1.6	0.0	2.8	0.1	7.1	1.2	5.9	0.0	79.2	100.0	363
20-24	34.6	23.3	0.2	0.0	10.7	1.6	1.0	6.3	0.1	3.0	0.2	11.3	3.3	7.9	0.1	65.4	100.0	1,671
25-29	41.6	30.5	0.9	0.1	14.8	1.6	1.3	8.0	0.1	3.8	0.0	11.1	3.5	7.6	0.0	58.4	100.0	1,567
30-34	49.0	33.4	1.5	0.1	13.1	1.8	2.2	9.9	0.7	3.9	0.3	15.6	5.7	9.8	0.0	51.0	100.0	1,729
35-39	49.6	34.5	2.3	0.1	13.3	2.2	2.9	10.8	0.1	2.5	0.1	15.1	5.5	9.5	0.1	50.4	100.0	1,826
40-44	42.6	28.0	2.6	0.1	9.9	1.6	1.9	9.1	0.1	2.3	0.1	14.7	4.9	9.7	0.1	57.4	100.0	1,652
45-49	21.2	11.9	3.0	0.2	3.4	0.3	0.7	3.0	0.0	1.4	0.0	9.3	4.4	4.7	0.1	78.8	100.0	1,278
Total	40.0	27.2	1.7	0.1	11.0	1.6	1.8	7.9	0.2	2.9	0.1	12.8	4.5	8.3	0.1	60.0	100.0	10,087

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhea method

As shown in Table 7.5, there are marked differences in the contraceptive prevalence rate among women by background characteristics. Looking at the data for currently married women, urban women are more likely than rural women to be using any method of contraception (49 percent versus 38 percent). Urban women are more likely to use both modern and traditional methods than rural woman. However, rural women use injectables in greater proportion than urban women (9 percent versus 4 percent). There is also substantial variation in current use by province. Current use among married women is highest in Phnom Penh (58 percent) and lowest in the Mondol Kiri/Rattanak Kiri (22 percent).

Table 7.5 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Cambodia 2005

Background characteristic	Any method	Any modern method	Modern method: Female sterilization	Male sterilization	Daily pill	Monthly pill	IUD	Injectables	Implants	Male condom	LAM
Residence											
Urban	49.4	30.6	3.6	0.1	10.5	2.2	3.6	4.0	0.3	6.2	0.1
Rural	38.3	26.5	1.3	0.1	11.1	1.5	1.4	8.6	0.2	2.3	0.1
Province											
Banteay Mean Chey	36.9	32.9	1.2	0.1	16.6	1.9	0.6	10.3	0.1	2.1	0.0
Kampong Cham	37.3	22.7	1.8	0.0	8.0	1.9	1.6	5.9	0.0	3.5	0.0
Kampong Chhnang	34.2	21.0	1.5	0.0	8.1	1.5	0.8	6.7	0.0	2.4	0.0
Kampong Speu	35.4	22.8	1.3	0.0	11.5	0.6	0.2	6.2	0.2	2.2	0.7
Kampong Thom	48.4	30.6	0.7	0.0	13.8	0.6	1.0	13.2	0.2	1.2	0.0
Kandal	39.8	28.9	1.2	0.0	10.2	2.3	3.3	9.1	0.2	2.6	0.0
Kratie	34.6	20.1	1.3	0.1	9.3	0.5	0.7	4.0	0.3	3.3	0.5
Phnom Penh	57.7	31.6	3.0	0.0	10.1	2.1	4.6	3.2	0.7	7.8	0.0
Prey Veng	35.2	24.5	1.3	0.4	8.0	1.2	1.2	10.6	0.3	1.4	0.0
Pursat	32.3	26.8	1.9	0.4	10.1	1.3	1.4	9.9	0.0	1.8	0.0
Siem Reap	29.3	20.2	1.2	0.2	8.8	0.5	1.2	4.6	0.0	3.8	0.0
Svay Rieng	36.7	30.8	2.8	0.2	14.6	0.6	2.3	8.9	0.1	1.3	0.0
Takeo	44.2	34.3	2.0	0.0	14.5	0.5	1.9	12.5	0.0	2.7	0.0
Otdar Mean Chey	50.3	35.1	1.0	0.3	19.0	2.4	0.3	10.1	0.3	1.5	0.1
Battambang/Krong Pailin	46.6	29.8	2.6	0.1	12.9	3.1	1.1	6.7	0.3	2.6	0.3
Kampot/Krong Kep	39.9	28.7	0.8	0.0	13.5	1.1	0.9	10.2	0.2	1.1	0.9
Krong Preah Sihanouk/ Kaoh Kong	44.3	30.1	2.4	0.2	13.7	1.8	2.9	6.7	0.0	2.3	0.1
Preah Vihear/Steung Treng	30.7	25.0	0.6	0.0	10.5	2.8	0.8	8.4	0.0	1.9	0.0
Mondol Kiri/Rattanak Kiri	21.5	19.3	0.2	0.0	8.4	4.2	0.8	3.9	0.1	1.2	0.3
Education											
No schooling	30.3	22.2	1.1	0.1	10.6	1.4	1.1	6.5	0.0	1.4	0.1
Primary	40.5	27.6	1.6	0.1	11.4	1.8	1.4	8.7	0.2	2.2	0.2
Secondary and higher	50.4	31.9	2.6	0.0	10.3	1.1	3.7	6.8	0.5	6.9	0.1
Number of living children											
0	7.0	3.3	0.0	0.0	0.6	0.3	0.0	0.1	0.0	2.2	0.0
1-2	42.1	28.3	1.1	0.0	12.6	1.6	2.0	7.2	0.2	3.5	0.1
3-4	48.0	32.4	2.4	0.1	12.7	1.9	2.4	9.3	0.3	3.2	0.2
5+	36.6	26.1	2.2	0.2	9.6	1.5	1.0	9.8	0.1	1.6	0.1
Wealth quintile											
Lowest	30.7	22.1	0.9	0.1	10.5	1.3	0.5	7.9	0.0	0.7	0.2
Second	34.3	25.1	1.0	0.0	11.9	1.5	1.0	7.8	0.0	1.7	0.2
Middle	38.7	27.3	1.2	0.0	12.3	1.2	0.4	10.0	0.1	1.9	0.1
Fourth	41.3	28.7	1.5	0.2	10.9	1.8	1.2	10.0	0.1	2.9	0.1
Highest	54.0	32.3	3.6	0.1	9.7	1.9	5.4	3.8	0.7	7.0	0.0
Total	40.0	27.2	1.7	0.1	11.0	1.6	1.8	7.9	0.2	2.9	0.1

Table 7.5 is continued on page 84

Continued...

Table 7.5—*Continued*

Background characteristic	Any traditional method	Traditional method: Rhythm	Traditional method: Withdrawal	Traditional method: Folk method	Not currently using	Total	Number of women
Residence							
Urban	18.8	8.8	10.0	0.0	50.6	100.0	1,572
Rural	11.7	3.7	8.0	0.1	61.7	100.0	8,515
Province							
Banteay Mean Chey	4.0	1.4	2.6	0.0	63.1	100.0	432
Kampong Cham	14.6	5.6	9.1	0.0	62.7	100.0	1,282
Kampong Chhnang	13.3	3.7	9.6	0.0	65.8	100.0	328
Kampong Speu	12.6	2.9	9.7	0.0	64.6	100.0	537
Kampong Thom	17.8	12.1	5.6	0.0	51.6	100.0	486
Kandal	10.9	3.9	7.0	0.0	60.2	100.0	929
Kratie	14.5	4.7	9.8	0.0	65.4	100.0	219
Phnom Penh	26.2	10.5	15.6	0.1	42.3	100.0	946
Prey Veng	10.7	2.9	7.8	0.0	64.8	100.0	880
Pursat	5.5	1.1	4.5	0.0	67.7	100.0	268
Siem Reap	9.0	2.9	5.9	0.2	70.7	100.0	711
Svay Rieng	6.0	3.0	3.0	0.0	63.3	100.0	425
Takeo	9.9	2.1	7.8	0.0	55.8	100.0	688
Otdar Mean Chey	15.2	2.7	11.3	1.2	49.7	100.0	115
Battambang/Krong Pailin	16.8	5.2	11.2	0.4	53.4	100.0	704
Kampot/Krong Kep	11.2	1.5	9.7	0.0	60.1	100.0	527
Krong Preah Sihanouk/ Kaoh Kong	14.2	6.3	7.7	0.2	55.7	100.0	247
Preah Vihear/Steung Treng	5.7	0.8	4.8	0.1	69.3	100.0	208
Mondol Kiri/Rattanak Kiri	2.2	0.4	1.6	0.2	78.5	100.0	155
Education							
No schooling	8.0	2.1	5.9	0.1	69.7	100.0	2,291
Primary	12.9	3.9	9.0	0.0	59.5	100.0	5,959
Secondary and higher	18.5	9.4	8.9	0.2	49.6	100.0	1,836
Number of living children							
0	3.7	1.1	2.6	0.0	93.0	100.0	786
1-2	13.7	4.6	9.1	0.0	57.9	100.0	3,889
3-4	15.6	6.0	9.5	0.1	52.0	100.0	3,189
5+	10.6	3.3	7.2	0.2	63.4	100.0	2,223
Wealth quintile							
Lowest	8.6	2.5	5.9	0.2	69.3	100.0	1,957
Second	9.3	2.4	6.8	0.1	65.7	100.0	2,028
Middle	11.5	2.5	8.9	0.1	61.3	100.0	1,952
Fourth	12.6	4.0	8.6	0.0	58.7	100.0	2,037
Highest	21.7	10.6	11.1	0.1	46.0	100.0	2,112
Total	12.8	4.5	8.3	0.1	60.0	100.0	10,087

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhea method

Contraceptive use is associated with the number of living children a woman has; it is highest among women with three to four children (48 percent) and lowest among women with no children (seven percent). Current contraceptive use increases with educational attainment and wealth quintile. Thirty percent of married women with no education are currently using contraception compared with 50 percent of married women with secondary and higher levels of education. Use of contraception rises steadily with rising wealth quintile, the percentage of currently married women using contraception ranges from 31 percent in the lowest wealth quintile to 54 percent in the highest wealth quintile.

Since the 2000 CDHS, the proportion of currently married women who are using any method of contraception has increased significantly, from 24 percent to 40 percent. The proportion of currently married women using any modern method has increased from 19 percent to 27 percent while the proportion using any traditional method has increased from five percent to 13 percent. It should be noted that while the classification of LAM switched from a traditional method in the 2000 CDHS to a modern method in the 2005 CDHS, the current use of LAM was less than one percent in both surveys and therefore does not affect the overall trend in use of modern and traditional methods. By individual

methods, the largest increases have been achieved among currently married women using daily pills (5 percent in 2000 to 11 percent in 2005) and withdrawal (2 percent to 8 percent).

7.4 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

Family planning may be used to either limit family size or delay the next birth. Couples using family planning to limit family size adopt contraception when they have already had the number of children they want. When contraception is used to space births, couples may start using family planning earlier, with the intention of delaying a possible pregnancy. This may be done even before a couple has had their desired number of children.

Women interviewed in the 2005 CDHS were asked how many children they had at the time they first used a contraceptive method. Table 7.6 shows the percent distribution of women by the number of living children at the time of first use of contraception, according to current age.

Table 7.6 Number of children at first use of contraception

Percent distribution of women by number of living children at time of first use of contraception, according to current age, Cambodia 2005

Current age	Never used	Number of living children at time of first use of contraception					Total	Number of women
		0	1	2	3	4+		
15-19	96.8	1.4	1.6	0.1	0.0	0.0	100.0	3,601
20-24	68.5	6.5	17.6	6.5	0.8	0.1	100.0	3,045
25-29	45.8	4.5	22.0	18.7	6.7	2.3	100.0	2,051
30-34	37.2	2.6	15.1	18.2	14.4	12.5	100.0	2,082
35-39	36.9	1.5	8.6	14.5	16.1	22.4	100.0	2,229
40-44	44.0	0.6	4.4	6.7	9.0	35.3	100.0	2,112
45-49	57.7	0.5	3.6	4.1	4.6	29.4	100.0	1,703
Total	59.6	2.7	10.1	8.9	6.5	12.2	100.0	16,823

The data show that 12 percent of women first used contraception when they had four or more children. Only 3 percent of women first used contraception before having any children. Ten percent of women began to use contraception after having their first child.

The age pattern of first use of contraception shows that younger women are more likely to start using contraception at lower parities than older women. For example, roughly one in five women age 25-29 started to use contraception after the birth of her first child, compared with less than one in ten women age 35-39.

7.5 USE OF SOCIAL MARKETING BRANDS

Current users of daily pills and condoms were asked for the brand name of the pills and condoms they last used. This information is useful in monitoring the success of social marketing programmes that promote a specific brand.

The socially marketed contraceptive brands are prevalent in Cambodia. Just under half of daily pill users (49 percent) use “OK” brand pills while around two-thirds of condom users use “#1” brand condoms (Table 7.7). The proportion of pill users who use OK pills increases with wealth quintile from 41 percent in the two lowest wealth quintiles to 75 percent in the highest wealth quintile.

Table 7.7 Use of social marketing brand pills and condoms

Percentage of pill and condom users using a specific social marketing brand, by background characteristics, Cambodia 2005

Background characteristic	Percentage of pill users using "OK" pill	Number of women using the daily pill	Percentage of condom users using "# 1"	Number of women using condoms
Residence				
Urban	73.9	160	65.6	84
Rural	44.2	913	67.8	169
Province				
Banteay Mean Chey	56.6	68	*	7
Kampong Cham	(63.2)	93	*	39
Kampong Chhnang	(39.5)	26	*	7
Kampong Speu	17.1	61	*	11
Kampong Thom	66.9	64	*	5
Kandal	(48.4)	84	*	24
Kratie	16.4	20	*	6
Phnom Penh	84.1	95	(53.3)	61
Prey Veng	(60.9)	67	*	11
Pursat	(52.3)	26	*	4
Siem Reap	(63.1)	61	*	24
Svay Rieng	60.9	62	*	6
Takeo	18.6	99	*	10
Otdar Mean Chey	37.8	22	*	2
Battambang/Krong Pailin	25.9	91	*	18
Kampot/Krong Kep	29.4	71	*	6
Krong Preah Sihanouk/ Kaoh Kong	66.9	32	*	6
Preah Vihear/Steung Treng	31.3	22	*	4
Mondol Kiri/Rattanak Kiri	(68.7)	12	*	2
Education				
No schooling	49.4	230	(75.2)	27
Primary	47.4	658	68.3	116
Secondary and higher	51.9	184	63.9	110
Wealth quintile				
Lowest	41.0	195	*	9
Second	41.0	235	(74.5)	30
Middle	42.6	231	(74.8)	31
Fourth	45.6	210	(69.7)	49
Highest	75.0	202	61.5	133
Total	48.6	1,073	67.1	253

Note: Table excludes pill and condom users who do not know the brand name. Condom use is based on women's reports. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

7.6 KNOWLEDGE OF FERTILE PERIOD

The successful use of natural family planning methods depends largely on an understanding of when during the menstrual cycle a woman is most likely to conceive. All women in the survey were asked about their knowledge of the fertile period. Specifically, they were asked whether there are certain days between two menstrual periods when a woman is more likely to become pregnant if she has sexual intercourse. Those who said yes were further asked if this time is just before the period begins, during the period, right after the period ends, or halfway between the two periods.

Table 7.8 shows that almost three-quarters of women do not know when a woman's fertile period is, and only 13 percent correctly state that the fertile time in a women's menstrual cycle is halfway between two periods. Knowledge of the fertile period is much higher among women who are users of rhythm method. Almost three in four women (73 percent) possess accurate knowledge of the timing of the fertile period. However, 13 percent of users of rhythm method report they don't know when the fertile period is, and an additional 11 percent believe it is right after a woman's period has ended. Thus, one in four users of rhythm method are at risk for unwanted pregnancy.

Table 7.8 Knowledge of fertile period

Percent distribution of women currently using periodic abstinence, women not using periodic abstinence, and all women by knowledge of the fertile period during the ovulatory cycle, Cambodia 2005

Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her period begins	1.5	1.0	1.0
During her period	0.8	0.7	0.7
Right after her period has ended	10.6	5.4	5.5
Halfway between two periods	73.0	11.7	13.4
Other	0.3	0.1	0.1
No specific time	0.4	5.0	4.9
Don't know	13.4	76.1	74.4
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	453	16,370	16,823

7.7 TIMING OF STERILIZATION

While only 1 percent of women of reproductive age are relying on sterilization as their method of contraception, Table 7.9 shows the distribution of sterilized women by age at the time of their sterilization. Almost seven in ten women who have been sterilized received the operation before the age of 35. It was most common for women who had been sterilized to have received the sterilization from the ages of 30 to 34 (33 percent). Twenty-seven percent of women who had received a sterilization were sterilized from age 25 to 29. The median age at sterilization has varied between 32 and 33 years showing no strong trend over time.

Table 7.9 Timing of sterilization

Percent distribution of sterilized women by age at the time of sterilization and median age at sterilization, according to the number of years since the operation, Cambodia 2005

Years since operation	Age at time of sterilization						Total	Number of women	Median age[1]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	(6.6)	(17.6)	(32.7)	(16.4)	(19.2)	(7.4)	100.0	58	32.5
2-3	*	*	*	*	*	*	100.0	18	31.7
4-5	(9.2)	(24.5)	(30.5)	(16.0)	(19.8)	(0.0)	100.0	20	32.0
6-7	*	*	*	*	*	*	100.0	20	33.4
8-9	*	*	*	*	*	*	100.0	16	32.4
10+	(11.3)	(43.6)	(37.2)	(7.8)	(0.0)	(0.0)	100.0	49	a
Total	9.0	27.2	33.1	16.5	11.9	2.4	100.0	180	31.4

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Median ages are calculated only for women sterilized at less than 40 years of age to avoid problems of censoring.
a = Not calculated due to censoring

7.8 SOURCE OF FAMILY PLANNING METHODS

Information on sources of modern contraceptives is useful for family planning managers and service providers. Women who reported using a modern method of contraception at the time of the survey were asked where they obtained the method the last time and interviewers recorded the name and location of the source. To ensure accuracy in reporting, supervisors and editors verified the type of source from the written response.

Table 7.10 shows that twice as many contraceptive users obtain methods from the public sector than the private medical sector (40 percent compared with 20 percent). Thirty percent of all contraceptive users obtain their methods from public health centers, and one in five women who use contraception obtain their methods from a shop.

Table 7.10 Source of modern contraceptive methods

Percent distribution of users of modern contraceptive methods by most recent source of the method, Cambodia 2005

Most recent source of method	Female sterilization	Male sterilization	Daily pill	Monthly pill	IUD	Injectables	Implants	Male condom	Total
Public sector	78.4	*	32.4	5.7	34.9	57.9	*	20.6	40.2
National hospital (PP)	26.1	*	0.0	0.0	4.5	0.0	*	1.2	2.2
Provincial hospital (RH)	39.6	*	0.2	0.0	4.2	0.8	*	1.6	3.5
District hospital (RH)	9.6	*	0.3	0.0	5.1	2.0	*	0.5	1.9
Health center	1.0	*	29.7	3.1	12.2	51.3	*	14.8	29.5
Health post	0.0	*	1.0	1.2	0.0	1.4	*	0.0	0.9
Military hospital	0.0	*	0.0	0.0	0.0	0.0	*	0.0	0.0
Other public	2.0	*	1.1	1.4	9.0	2.3	*	2.5	2.3
Private medical sector	18.1	*	13.1	14.9	56.4	25.8	*	10.4	20.2
Private hospital	5.1	*	0.3	0.5	1.0	1.4	*	0.6	1.1
Private clinic	11.9	*	4.6	5.0	33.3	8.5	*	6.3	8.7
Other private medical	1.1	*	8.2	9.4	22.1	15.8	*	3.6	10.4
Other source	0.0	*	44.5	65.9	1.0	8.4	*	57.0	30.5
Shop	0.0	*	31.3	64.2	0.0	2.9	*	47.3	22.3
Community distributor	0.0	*	12.8	0.4	0.2	5.4	*	6.3	7.5
Friend/relative	0.0	*	0.4	1.4	0.8	0.1	*	3.4	0.7
Other	2.8	*	8.7	13.4	7.7	7.8	*	11.8	8.5
Missing	0.7	*	1.3	0.0	0.0	0.1	*	0.3	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	180	9	1,116	159	178	794	19	294	2,749

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Total includes other modern methods but excludes lactational amenorrhea method (LAM).
PP = Phnom Penh
RH = Referral hospital

There is notable variation in source of method by type of contraceptive. Women who use the monthly pill or condoms most often obtain these method from a shop (64 percent of monthly pill users and 47 percent of condom users). Shops are an important source for users of the daily pill as well (31 percent of users); however, users of daily pills also commonly obtain their method from the public sector (32 percent of users), mainly health centers. The private medical sector is the largest source for IUDs. Over half of women who use an IUD obtained it from the private medical sector while 35 percent obtained their IUD from a public sector source. Finally, the public sector is the most common source of contraception among women who use injectables (58 percent of injectable users).

Since the 2000 CDHS there have been some slight changes in the sources for contraceptive methods. Users of monthly pills are now less likely to obtain them from the public sector and more likely to obtain them from “other” sources, and the private medical sector has replaced the public sector as the predominant source for IUD.

7.9 COST OF FAMILY PLANNING METHODS

In the 2005 CDHS, users of contraception were asked how much they paid the last time they obtained the method, including the cost of the method itself and any consultation. Table 7.11 presents the findings separately for the public and private sector as well as for all sources together. Overall, 6 percent of users reported obtaining their method for free, which includes one-quarter of sterilized women, 14 percent of women with IUDs, and 15 percent of women using condoms with their partners getting their method for free. Among users who pay for their method, the median cost is about 1,000 riels, or 24 cents. That is, about half of women pay more and half of women pay less than 1,000 riel (24 cents) for their method.

Table 7.11 Cost of modern contraceptive methods

Percentage of current users of contraception who did not pay for the method and who do not know the cost of the method and the median cost of the method by source of current method, according to current method, Cambodia 2005

Source of method/cost	Female sterili-zation	Male sterili-zation	Daily pill	Monthly pill	IUD	Inject-ables	Implants	Male condom	Total
Public sector									
Percentage free	27.9	*	6.0	*	29.3	2.2	*	35.3	10.5
Do not know cost	7.5	*	0.7	*	0.0	0.0	*	8.7	1.7
Median cost in USD[1]	31.00	*	0.24	*	1.89	0.35	*	0.12	0.24
Number of women	141	7	362	9	62	459	3	60	1,105
Private medical sector/other									
Percentage free	(17.5)	*	0.7	0.0	6.1	1.4	*	10.2	2.9
Do not know cost	(9.3)	*	0.1	0.9	0.0	0.1	*	24.6	3.9
Median cost in USD[1]	(300.00)	*	0.21	0.12	7.07	0.59	*	0.24	0.24
Number of women	39	2	755	150	116	334	16	233	1,644
Total									
Percentage free	25.6	*	2.4	1.2	14.2	1.9	*	15.4	5.9
Do not know cost	7.9	*	0.3	0.9	0.0	0.1	*	21.3	3.0
Median cost in USD [1]	50.00	*	0.24	0.12	5.89	0.35	*	0.14	0.24
Number of women	180	9	1,116	159	178	794	19	294	2,749

Note: Table excludes lactational amenorrhea method (LAM). Costs are based on the last time current users obtained the method. Costs include consultation costs, if any. For condom, costs are per package; for pills, per cycle. For sterilization, data are based on women who received the operation in the 5 years before the survey. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Median cost is based only on those women who reported a cost.
USD = United States of America dollar

7.10 INFORMED CHOICE

Current users of modern methods who are well informed about the side effects and problems associated with methods and who know of a range of method options are in a better position to make an informed choice about the method they would like to use. Current users of various modern contraceptive methods were asked whether, at the time they were adopting a particular method, they were informed about the possible side effects or problems they might have with the method and what to do if they experienced side effects. Women who were sterilized in the five years preceding the survey were asked whether they were informed that sterilization is permanent. Table 7.12 shows the percentage of current users of modern methods who were informed about the side effects or problems with the method used, informed about what to do if they experienced side effects, and informed of other methods they could use, according to the type of method they are currently using and initial source of the method. In addition, the table shows the percent of sterilized women who were told the sterilization was permanent.

Table 7.12 Informed choice

Among current users of modern contraceptive methods who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects or problems, and the percentage who were informed about other methods they could use, by method and initial source; and among sterilized women, the percentage who were informed that the method is permanent, by source of method, Cambodia 2005

Method/source/ background characteristic	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if side effects experienced	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women	Among sterilized women, percentage who were informed that sterilization is permanent[1]	Number of sterilized women
Method						
Female sterilization	64.6	49.7	32.0	81	87.1	81
Daily pill	62.5	58.9	54.2	944	na	na
Monthly pill	31.1	28.5	44.4	127	na	na
IUD	62.8	64.7	53.1	124	na	na
Injectables	67.8	67.5	59.0	624	na	na
Implants	*	*	*	16	na	na
Total	62.5	59.9	54.5	1,916	87.1	81
Initial source of method[2]						
Public sector	74.4	74.3	63.5	825	83.1	57
National hospital (PP)	*	*	*	20	*	13
Provincial hospital (RH)	(81.7)	(66.1)	(42.1)	38	(90.0)	30
District hospital (RH)	(55.8)	(68.3)	(39.0)	41	*	12
Health center	77.1	77.4	67.5	667	*	1
Health post	(56.7)	(65.1)	(62.5)	22	na	0
Other public	(63.9)	(62.5)	(59.5)	37	*	1
Private medical sector	63.5	58.6	53.4	413	*	22
Private hospital	(49.9)	(49.9)	(47.8)	24	*	7
Private clinic	67.3	61.2	54.7	171	*	15
Other private medical	62.0	57.5	53.0	218	*	0
Other source	46.1	41.8	46.8	531	na	0
Shop	34.2	29.2	37.2	375	na	0
Community distributor	75.3	72.7	69.4	152	na	0
Other	55.7	51.6	35.6	134	100.0	1

Note: Table excludes users who obtained their method from friends/relatives.
[1] Among women who were sterilized in the five years preceding the survey
[2] Source at start of current episode of use
na = Not applicable
PP = Phnom Penh
RH = Referral hospital

Overall, 63 percent of contraceptive users were informed about side effects of their method when they started their current episode of using that method. Six in ten women were informed about what to do if they experienced side effects, and 55 percent were informed by a health or family planning worker about other methods they could use. Thirteen percent of women who were sterilized in the five years preceding the survey said they were not told the sterilization would be permanent.

Findings on informed choice vary by method. Users of implants are most likely to have received all three pieces of information relating to informed choice. Only 31 percent users of the monthly pill were informed of side effects, and 29 percent were told about what to do in the event of side effects. The lowest proportion of women who were informed of other methods occurs among users of female sterilization (32 percent).

7.11 FUTURE USE OF CONTRACEPTION

Intention to use a method of contraception is an important indicator of the potential demand for family planning services. Currently married women who were not using contraception at the time of the survey were asked about their intention to use family planning methods in the future. The results are presented in Table 7.13.

Table 7.13 Future use of contraception

Percent distribution of currently married women who are not using a contraceptive method by intention to use in the future, according to number of living children, Cambodia 2005

Intention to use in the future	Number of living children[1]					Total
	0	1	2	3	4+	
Intends to use	51.2	67.1	63.9	52.6	36.1	51.6
Unsure	6.8	4.8	4.2	5.4	3.0	4.2
Does not intend to use	42.0	28.1	31.8	41.8	60.9	44.1
Missing	0.0	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	415	1,220	1,193	1,010	2,214	6,052

[1] Includes current pregnancy

More than half (52 percent) of currently married women who were not using any contraception at the time of the survey say that they intend to use a family planning method some time in the future. Forty-four percent do not intend to use any method, while 4 percent are unsure of their intention. The proportion of women who intend to use in the future varies by the number of living children, increasing from 51 percent for those with no living children to a peak at 67 percent among those with one child. These women are likely interested in spacing subsequent births. Over the past five years, there has been an increase in the proportion of married women not using at the time of the survey but who intend to use in the future (from 42 percent in 2000 to 52 percent in 2005).

7.12 REASONS FOR NOT INTENDING TO USE A CONTRACEPTIVE METHOD IN THE FUTURE

An understanding of the reasons why people do not use family planning methods is critical in designing programmes that are effective in reaching women with unmet need and to improve the quality of family planning services. Table 7.14 shows currently married nonusers who do not intend to use a contraceptive method in the future by the main reasons for not intending to use family planning. Around 47 percent cited fertility-related reasons for not intending to use contraception. In particular, 20 percent said that the main reason for not intending to use was a belief that they had low fertility or could not get pregnant. In addition, 36 percent of married women not using a contraceptive cited health concerns as their main reason for having no intention to use a method.

Table 7.14 Reason for not intending to use contraception in the future

Percent distribution of currently married women who are not using contraception and who do not intend to use in the future by main reason for not intending to use, Cambodia 2005

Reason	Percent
Fertility-related reasons	46.6
Infrequent sex/no sex	9.4
Menopausal/had hysterectomy	7.3
Subfecund/infecund	20.1
Wants as many children as possible	9.7
Opposition to use	2.0
Respondent opposed	1.2
Husband/partner opposed	0.6
Others opposed	0.2
Religious prohibition	0.1
Lack of knowledge	0.7
Knows no method	0.5
Knows no source	0.2
Method-related reasons	42.1
Health concerns	35.8
Fear of side effects	4.0
Lack of access/too far	0.0
Costs too much	0.5
Inconvenient to use	0.5
Interfere with body's normal processes	1.3
Other	7.6
Don't know	1.0
Total	100.0
Number of women	2,667

The proportion of women who gave opposition to family planning as their reason for not using contraception dropped from 9 percent in the 2000 CDHS to 1 percent in this survey. Wanting more children was given as the reason for non-use by equal proportions of women in 2000 and 2005 (10 percent). The proportion of women who cited health concerns increased from 26 percent in 2000 to 36 percent in 2005.

7.13 Preferred Method of Contraception for Future Use

Demand for specific methods can be assessed by asking nonusers which methods they intend to use in the future. Table 7.15 presents information on method preference among currently married women who are not using a contraceptive method but say they intend to use in the future. Thirty-five percent of married women who intend to use a contraceptive but were not using at the time of the survey say the method they intend to use is the daily pill. One in four women intend to use injectables, and 14 percent are unsure which method they intend to use.

Table 7.15 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, Cambodia 2005

Method	Percent
Modern method	
Female sterilization	2.0
Daily pill	35.1
Monthly pill	4.4
IUD	3.5
Injectables	24.6
Implants	2.0
Condom	6.6
Traditional method	
Rhythm	2.8
Withdrawal	4.1
Other	1.1
Unsure of method	13.7
Total	100.0
Number of women	3,123

Daily pill and injectables were also the most preferred methods for future use in the 2000 CDHS. However, the proportion of women intending to use daily pill has increased from 26 percent in 2000 to 35 percent in 2005, while the proportion intending to use injectables has decreased from 34 percent to 25 percent.

7.14 Exposure to Family Planning Messages

The media can be a major source of family planning messages. Information about public exposure to messages on a particular type of media allows policymakers to ensure the use of the most effective means of communication for various target groups in the population. To assess the effectiveness of electronic and print sources on the dissemination of family planning information, respondents in the 2005 CDHS were asked if they had heard or seen family planning messages on the radio or television, or read a family planning message in a newspaper or magazine in the months leading up to the survey. The results are shown in Table 7.16.

Media messages about family planning information are largely accessed through television and radio with lesser access through the print media. For example, 67 percent of women had recently heard about family planning on television and 58 percent had recently heard about family planning on the radio. By contrast, only 15 percent of women got such information from newspapers or magazines. Almost one-quarter of women were not exposed to a family planning message on any of these three media in the months preceding the survey.

Significant variation is observed in exposure to family planning messages by background characteristics. Younger women are more likely to be exposed to family planning messages than older women, and women in rural areas have less exposure to essential information on health and family planning through the media than women in urban areas. For example, rural women are more than twice as likely as urban women not to have seen or heard family planning messages in any of the three types of media (27 percent versus 12 percent). Educational attainment and wealth quintile are both associated with improved access to family planning messages in the media. For example, only 11 percent of women with primary education were exposed to a family planning message in a newspaper or magazine, compared with 36 percent of women with secondary and higher education. In addition, the proportion of women exposed to family planning messages on television increases steadily from 42 percent among women in the lowest wealth quintile to 88 percent among those in the highest wealth quintile.

Table 7.16 Exposure to family planning messages

Percentage of women who heard or saw a family planning message on the radio or television, or in a newspaper or magazine in the past few months, according to background characteristics, Cambodia 2005

Background characteristic	Radio	Television	Newspaper/ magazine	None of the three media sources	Number of women
Age					
15-19	62.5	74.1	19.9	18.3	3,601
20-24	58.6	68.5	18.2	23.1	3,045
25-29	56.6	65.4	15.9	25.2	2,051
30-34	51.3	61.4	13.3	29.2	2,082
35-39	54.7	63.6	12.8	26.4	2,229
40-44	54.8	63.1	9.9	27.3	2,112
45-49	61.2	67.7	12.7	22.9	1,703
Residence					
Urban	62.5	81.8	31.5	12.3	2,973
Rural	56.5	63.9	11.9	26.6	13,850
Province					
Banteay Mean Chey	45.1	60.0	8.0	32.3	650
Kampong Cham	32.9	41.5	3.8	50.1	2,116
Kampong Chhnang	69.0	71.2	21.2	15.3	556
Kampong Speu	64.4	76.2	9.5	17.5	870
Kampong Thom	61.3	59.9	21.0	29.9	799
Kandal	81.0	91.1	21.2	6.3	1,612
Kratie	40.7	46.8	10.5	41.3	331
Phnom Penh	64.3	91.7	32.5	6.3	1,896
Prey Veng	53.4	63.9	7.1	27.3	1,395
Pursat	72.2	73.1	8.2	14.4	480
Siem Reap	54.3	75.6	13.3	17.2	1,200
Svay Rieng	71.3	75.3	11.9	12.5	658
Takeo	55.4	74.4	20.4	20.8	1,102
Otdar Mean Chey	43.1	36.8	4.2	44.8	177
Battambang/Krong Pailin	77.2	84.7	29.0	7.9	1,247
Kampot/Krong Kep	42.9	31.2	2.3	43.3	839
Krong Preah Sihanouk/ Kaoh Kong	58.9	54.3	15.4	28.6	379
Preah Vihear/Steung Treng	40.0	8.1	8.7	56.5	301
Mondol Kiri/Rattanak Kiri	17.5	13.7	8.0	71.3	215
Education					
No schooling	43.7	51.3	2.6	37.3	3,270
Primary	56.2	65.1	10.8	25.5	9,389
Secondary and higher	71.7	83.7	35.6	10.4	4,165
Wealth quintile					
Lowest	43.1	42.3	4.0	44.3	3,017
Second	51.5	55.7	6.2	31.7	3,164
Middle	57.0	67.2	9.4	23.2	3,245
Fourth	64.5	74.4	15.9	18.1	3,308
Highest	67.8	87.9	35.1	8.7	4,089
Total	57.6	67.0	15.4	24.0	16,823

Exposure to family planning messages through the media is highest in Phnom Penh, Kandal, and Battambang/Krong Pailin. Less than half of women were exposed to a family planning message through any of the three types of media in Kampong Cham, Preah Vihear/Steung Treng, and Mondol Kiri/Rattanak Kiri.

7.15 Contact of Nonusers with Family Planning Providers

Given the importance of family planning services to the improvement of mothers' and children's health, it is critical that every opportunity to meet a woman's family planning needs be fully exploited. In reality, however, health care providers miss these opportunities. Information on missed opportunities was gathered by asking women if they had visited a health facility in the 12 months preceding the survey. Those who visited a health facility were asked whether anyone at the facility had discussed family planning with them during any of their visits. Women were also asked

whether they had been visited by a fieldworker who talked with them about family planning in the 12 months preceding the survey.

The results of these questions for the group of women not using a method of contraception at the time of the survey are presented in Table 7.17. Three-quarters of nonusers did not have any contact with healthcare providers or fieldworkers with whom family planning was discussed. Around one in five nonusers (19 percent) reported being visited by fieldworkers who discussed family planning issues. Twenty-seven percent of nonusers visited a health facility during the 12 months preceding the survey; however, the majority of these women did not discuss family planning with any healthcare provider.

Table 7.17 Contact of nonusers with family planning providers

Percentage of women who are not using contraception who were visited by a fieldworker who discussed family planning, who visited a health facility and discussed family planning, and who visited a health facility but did not discuss family planning in the 12 months preceding the survey, and the percentage who did not discuss family planning with a field worker or with someone at a health facility in the 12 months preceding the survey, by background characteristics, Cambodia 2005

Background characteristic	Women who were visited by fieldworker who discussed family planning	Women who visited a health facility		Women who did not discuss family planning with a field - worker or at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	13.5	3.1	10.6	84.9	3,526
20-24	17.5	9.8	19.5	76.6	2,465
25-29	20.3	15.1	21.7	70.9	1,398
30-34	22.6	16.0	19.0	67.7	1,232
35-39	24.8	14.1	18.0	67.7	1,319
40-44	21.7	10.9	18.6	73.2	1,403
45-49	23.9	10.8	18.4	70.5	1,423
Residence					
Urban	11.3	8.5	13.9	82.6	2,189
Rural	20.8	10.1	17.5	73.9	10,577
Province					
Banteay Mean Chey	22.7	28.1	28.2	62.1	490
Kampong Cham	22.1	5.3	15.1	74.4	1,635
Kampong Chhnang	18.8	14.9	20.3	71.4	443
Kampong Speu	33.2	8.7	19.6	63.9	677
Kampong Thom	10.3	15.7	24.6	80.5	563
Kandal	9.9	9.5	24.2	83.5	1,242
Kratie	16.6	5.5	20.0	80.4	255
Phnom Penh	2.2	3.6	12.7	94.3	1,340
Prey Veng	7.1	5.4	17.6	88.1	1,085
Pursat	69.6	25.6	7.6	27.1	393
Siem Reap	26.4	11.3	17.8	68.5	992
Svay Rieng	14.6	13.0	7.3	76.2	500
Takeo	12.9	8.5	17.2	82.0	798
Otdar Mean Chey	67.4	23.0	8.9	29.8	119
Battambang/Krong Pailin	21.7	13.6	16.9	70.6	918
Kampot/Krong Kep	25.6	3.9	11.8	73.1	629
Krong Preah Sihanouk/ Kaoh Kong	39.0	12.9	8.1	56.1	270
Preah Vihear/Steung Treng	25.3	6.5	16.0	71.5	236
Mondol Kiri/Rattanak Kiri	8.7	2.4	6.6	89.1	181
Education					
No schooling	23.3	10.3	15.4	71.9	2,569
Primary	20.1	10.3	18.1	74.1	6,963
Secondary and higher	13.7	8.4	15.4	81.1	3,233
Wealth quintile					
Lowest	23.9	10.3	16.6	71.0	2,415
Second	23.4	11.1	17.7	71.3	2,466
Middle	22.4	9.4	17.9	73.0	2,487
Fourth	18.2	11.6	16.6	75.0	2,464
Highest	9.7	7.1	15.6	85.0	2,933
Total	19.1	9.8	16.9	75.4	12,765

7.16 HUSBAND'S KNOWLEDGE OF WIFE'S USE OF CONTRACEPTION

Concealment of use of contraception is an indication of absence of communication or disagreement on use of family planning. To shed light on the extent of communication on the use of contraception among married couples, married women who were using contraception at the time of the survey were asked whether their husband knew of their use. Almost all users (99 percent) reported that their husbands know about their use of contraception (Table 7.18). There is essentially no variation from universal husband's awareness of contraceptive use by their spouse by background characteristics.

Table 7.18 Husband/partner's knowledge of women's use of contraception

Percent distribution of currently married women who are using a contraceptive method by whether their husband/partner knows of their use of contraception, according to background characteristics, Cambodia 2005

Background characteristic	Knows[1]	Does not know	Unsure whether knows	Total	Number of women
Age					
15-19	98.7	1.1	0.2	100.0	76
20-24	99.0	0.3	0.6	100.0	577
25-29	98.0	0.9	1.1	100.0	653
30-34	99.5	0.2	0.3	100.0	847
35-39	99.0	0.5	0.5	100.0	906
40-44	98.2	1.1	0.7	100.0	705
45-49	99.1	0.2	0.7	100.0	271
Residence					
Urban	99.2	0.4	0.4	100.0	777
Rural	98.7	0.6	0.7	100.0	3,258
Province					
Banteay Mean Chey	97.7	0.7	1.7	100.0	159
Kampong Cham	99.0	0.0	1.0	100.0	479
Kampong Chhnang	98.9	1.1	0.0	100.0	112
Kampong Speu	98.4	0.6	1.0	100.0	190
Kampong Thom	97.7	1.4	0.9	100.0	235
Kandal	99.5	0.5	0.0	100.0	370
Kratie	99.2	0.0	0.8	100.0	76
Phnom Penh	98.6	0.9	0.4	100.0	546
Prey Veng	99.0	1.0	0.0	100.0	310
Pursat	98.6	0.0	1.4	100.0	86
Siem Reap	99.4	0.0	0.6	100.0	208
Svay Rieng	97.8	1.6	0.6	100.0	156
Takeo	99.3	0.3	0.4	100.0	304
Otdar Mean Chey	98.4	0.4	1.2	100.0	58
Battambang/Krong Pailin	99.2	0.4	0.4	100.0	328
Kampot/Krong Kep	99.2	0.0	0.8	100.0	210
Krong Preah Sihanouk/ Kaoh Kong	98.6	0.4	1.0	100.0	109
Preah Vihear/Steung Treng	99.0	0.6	0.4	100.0	64
Mondol Kiri/Rattanak Kiri	96.3	1.0	2.6	100.0	33
Education					
No schooling	97.7	1.2	1.1	100.0	694
Primary	99.1	0.5	0.4	100.0	2,415
Secondary and higher	98.9	0.2	0.8	100.0	926
Wealth quintile					
Lowest	98.0	0.6	1.3	100.0	600
Second	98.7	0.6	0.8	100.0	697
Middle	98.9	0.8	0.3	100.0	756
Fourth	99.2	0.3	0.5	100.0	842
Highest	98.9	0.6	0.5	100.0	1,140
Total	98.8	0.6	0.6	100.0	4,035

[1] Includes women who report use of male sterilization or male condoms

OTHER PROXIMATE DETERMINANTS OF FERTILITY 8

This chapter examines the principal factors, other than contraception, that affect a woman's chances of becoming pregnant. These factors include marriage (including consensual unions), postpartum amenorrhea, abstinence from sexual relations, and termination of exposure to pregnancy. Marriage and sexual relations relate to childbearing; postpartum amenorrhea and abstinence affect the intervals between births; and menopause marks the end of childbearing. This chapter, will also take an in-depth look at more direct measures of the timing and level of exposure to the risk of pregnancy: the age at first sexual intercourse and the frequency of intercourse. Marriage is a important fertility indicator because, for most women in Cambodia it marks the beginning of regular exposure to the risk of pregnancy. Populations in which the age at first marriage is low also tend to experience early childbearing and high fertility. Measures of the onset of menopause are important since the probability of becoming pregnant decreases as women approach the end of their reproductive years and increasing proportions become infecund. Collectively, the above-mentioned factors determine the duration and pace of reproductive activity and hence are important in understanding fertility.

8.1 MARITAL STATUS

Table 8.1 shows the distribution of all women and men age 15-49 by current marital status. The data broadly indicate that 32 percent of Cambodian women of reproductive age have never been married, and 60 percent are currently married or cohabiting as if married. Divorced and separated women constitute 4 percent of women of reproductive age, and 4 percent are widows. A higher proportion of men age 15-49 have never been married (39 percent). However, this is partly a function of age distribution. Fewer men in the youngest age groups have ever been married compared with women in the same age groups. There are almost no men in the two oldest age groups that have never been married.

Table 8.1 Current marital status

Percent distribution of women and of men by current marital status, according to age, Cambodia 2005

	Marital status							
Age	Never married	Married	Living together	Divorced	Separated	Widowed	Total	Number of respondents
				WOMEN				
15-19	89.2	9.8	0.3	0.4	0.2	0.2	100.0	3,601
20-24	40.8	54.3	0.5	2.3	1.3	0.7	100.0	3,045
25-29	17.7	76.1	0.4	2.5	1.4	1.9	100.0	2,051
30-34	8.4	82.7	0.4	3.9	2.4	2.3	100.0	2,082
35-39	7.2	81.6	0.4	3.6	2.0	5.3	100.0	2,229
40-44	6.2	77.9	0.4	4.4	1.8	9.4	100.0	2,112
45-49	4.1	74.9	0.2	4.3	2.3	14.4	100.0	1,703
Total 15-49	31.8	59.6	0.4	2.7	1.5	4.0	100.0	16,823
				MEN				
15-19	97.9	1.6	0.0	0.0	0.4	0.0	100.0	1,662
20-24	60.5	36.2	0.5	1.1	1.6	0.0	100.0	1,222
25-29	22.4	72.8	0.2	1.0	2.7	0.9	100.0	830
30-34	3.1	93.2	0.0	1.4	1.1	1.1	100.0	811
35-39	2.5	95.4	0.4	1.0	0.1	0.7	100.0	858
40-44	0.7	97.5	0.1	0.4	0.1	1.2	100.0	793
45-49	0.0	97.3	0.1	1.2	0.3	1.1	100.0	555
Total 15-49	38.7	58.8	0.2	0.8	0.9	0.6	100.0	6,731

Table 8.1 also shows that the proportion of women who have never married predictably decreases with age to a low of 4 percent among those age 45-49. This reflects the near-universality of marriage in Cambodian society. Consequently, the proportion of currently married women increases with age up to ages 30-39 (83 percent) and declines thereafter due to increasing levels of widowhood. The data on men reflect no relationship between age and widowhood; however, it is likely that this is due to men's greater propensity to remarry after having been widowed.

8.2 AGE AT FIRST MARRIAGE

In many societies, age at first marriage marks the point in a woman's life when childbearing becomes socially acceptable. Women who marry early will on average have a longer exposure to the risk of pregnancy. Therefore, early age at first marriage would imply early age at childbearing and a higher level of fertility for the society. Information on age at first marriage was obtained by asking all ever-married respondents the month and year they started living together with their first spouse, or if they could not remember the month and year, the age at which they started living with their first spouse. This information is presented in Table 8.2.

Table 8.2 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages, and median age at first marriage, according to current age, Cambodia 2005

Current age	Percentage first married by exact age: 15	18	20	22	25	Percentage never married	Number of respondents	Median age at first marriage
				WOMEN				
15-19	1.2	na	na	na	na	89.2	3,601	a
20-24	2.5	23.3	42.4	na	na	40.8	3,045	a
25-29	4.7	28.5	49.2	64.9	78.5	17.7	2,051	20.1
30-34	3.4	27.0	51.6	70.3	81.9	8.4	2,082	19.9
35-39	2.4	22.2	44.8	64.2	79.5	7.2	2,229	20.5
40-44	2.0	28.8	52.5	67.6	79.9	6.2	2,112	19.8
45-49	3.3	18.8	44.6	68.3	84.9	4.1	1,703	20.4
20-49	3.0	24.8	47.2	na	na	16.2	13,222	na
25-49	3.1	25.3	48.6	67.0	80.8	8.8	10,177	20.1
				MEN				
15-19	0.0	na	na	na	na	97.9	1,662	a
20-24	0.0	6.0	19.0	na	na	60.5	1,222	a
25-29	0.2	7.0	23.0	44.9	66.4	22.4	830	22.6
30-34	1.3	11.1	30.0	52.3	73.8	3.1	811	21.8
35-39	0.1	11.1	27.6	45.7	73.7	2.5	858	22.4
40-44	1.0	12.4	35.6	53.0	77.9	0.7	793	21.6
45-49	0.0	4.0	25.6	52.2	80.6	0.0	555	21.8
20-49	0.4	8.6	26.2	45.0	65.7	19.3	5,069	na
25-49	0.5	9.5	28.5	49.4	74.0	6.2	3,847	22.1

Note: Age at first marriage is the age at which the respondent began living with her/his first spouse/partner
na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women or men began living with their husbands, wives or partners for the first time before reaching the beginning of the age group

The median age at first marriage among women in Cambodia has remained stable over the last two decades, at about 20 years of age. Men have a slightly older median age at first marriage of about 22 years. The proportion of women married by the age of 15 years has declined in the very recent past, dropping from 5 percent among women age 25-29 to 1 percent among women age 15-19. About half of Cambodian women are married by age 20, and 81 percent are married by age 25. Less than 1 percent of all Cambodian men were married before the age of 15, and only 10 percent were

married by age 18. This finding contrasts fairly sharply with the proportion of women married by age 18 (25 percent).

Table 8.3.1 shows the median age at first marriage among women age 25-49 by current age and selected background characteristics. Table 8.3.2 shows the median age at first marriage among men age 25-49. The median age at first marriage of urban women (20.7) is only slightly older than that of rural women (20.0). Men demonstrate greater urban/rural differences in median age at marriage than do women (23.9 years and 21.7 years, for urban and rural men, respectively). Median age at first marriage varies by 2.5 years across provinces, ranging from 18.6 in Mondol Kiri/Rattanak Kiri to 21.1 in Kampong Chhnang. Men's median age at first marriage varies by 3.6 years across provinces, where it is youngest in Svay Rieng (20.7) and oldest in Phnom Penh (24.3). One consistent pattern of difference in age at first marriage among Cambodian women of all ages is with regard to education. Women who have attained a high school education or higher marry on the average one year later than their less-educated countrywomen. Men with a high school education or higher marry on average 2 years later than their less-educated counterparts. For women there is no difference in median age at marriage by wealth quintile; however, men in the two highest quintiles have progressively older median ages at first marriage.

Table 8.3.1 Median age at first marriage: women

Median age at first marriage among women age 25-49, by current age and background characteristics, Cambodia 2005

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	21.4	20.3	20.9	20.3	20.8	20.7
Rural	19.9	19.8	20.4	19.7	20.4	20.0
Province						
Banteay Mean Chey	20.6	19.0	20.7	19.6	21.0	20.2
Kampong Cham	20.3	19.9	20.9	20.3	20.3	20.3
Kampong Chhnang	20.5	20.8	21.9	21.8	20.8	21.1
Kampong Speu	19.7	19.8	20.0	19.5	20.6	20.0
Kampong Thom	21.2	19.8	20.9	19.2	21.9	20.6
Kandal	19.9	20.0	21.3	19.6	20.4	20.3
Kratie	20.6	19.9	20.4	20.3	20.3	20.3
Phnom Penh	21.5	20.8	20.2	19.9	20.3	20.5
Prey Veng	19.9	19.7	20.4	18.8	19.8	19.8
Pursat	19.5	19.1	20.1	19.7	20.4	19.9
Siem Reap	20.3	21.0	20.7	20.4	21.2	20.7
Svay Rieng	19.0	19.7	19.9	19.2	20.4	19.7
Takeo	19.0	20.1	20.3	20.2	21.1	20.2
Otdar Mean Chey	18.5	18.8	20.0	19.1	20.3	19.3
Battambang/Krong Pailin	20.4	19.7	20.7	19.5	19.8	20.0
Kampot/Krong Kep	20.0	19.1	19.6	19.0	20.0	19.6
Krong Preah Sihanouk/ Kaoh Kong	18.4	19.4	21.0	20.1	20.2	19.9
Preah Vihear/Steung Treng	19.3	18.8	19.6	18.6	18.5	19.1
Mondol Kiri/Rattanak Kiri	19.5	17.7	18.3	18.5	19.2	18.6
Education						
No schooling	19.9	19.6	20.1	19.7	20.5	20.0
Primary	19.7	19.7	20.2	19.5	20.3	19.9
Secondary and higher	21.3	20.4	21.4	23.2	21.0	21.1
Wealth quintile						
Lowest	20.0	20.2	20.3	20.5	21.3	20.4
Second	19.9	19.8	20.5	20.1	19.9	20.0
Middle	19.9	19.5	20.4	19.9	20.2	20.0
Fourth	19.8	19.5	20.3	19.0	20.2	19.7
Highest	20.8	20.3	20.8	19.7	20.6	20.5
Total	20.1	19.9	20.5	19.8	20.4	20.1

Note: Age at first marriage is the age at which the respondent began living with her first spouse/partner.

Table 8.3.2 Median age at first marriage: men

Median age at first marriage among men age 25-49, by current age and background characteristics, Cambodia 2005

Background characteristic	Age 25-29	30-34	35-39	40-44	45-49	Men age 25-49
Residence						
Urban	a	23.5	24.0	23.6	22.9	23.9
Rural	22.1	21.5	22.1	21.1	21.7	21.7
Province						
Banteay Mean Chey	(22.8)	(23.7)	(22.6)	(22.9)	(22.5)	22.9
Kampong Cham	(23.1)	21.8	22.7	(20.0)	*	22.0
Kampong Chhnang	(22.1)	(22.6)	22.1	(22.1)	(21.3)	22.1
Kampong Speu	(20.9)	(21.5)	(21.1)	(20.3)	(21.7)	21.2
Kampong Thom	(21.6)	(20.6)	(21.7)	(21.2)	(22.1)	21.4
Kandal	(24.6)	21.7	(23.2)	(22.7)	(22.2)	22.7
Kratie	(24.8)	(23.5)	22.3	(22.5)	(22.3)	23.1
Phnom Penh	a	(24.9)	(24.7)	23.3	(22.7)	24.3
Prey Veng	(20.9)	(19.9)	(23.1)	(19.8)	(20.6)	20.8
Pursat	(21.9)	*	(23.5)	(21.2)	(22.8)	22.2
Siem Reap	22.8	(22.7)	(22.5)	(21.6)	(23.2)	22.6
Svay Rieng	(21.0)	(20.6)	(20.5)	20.0	(22.0)	20.7
Takeo	(21.6)	20.7	21.7	(20.9)	(21.0)	21.3
Otdar Mean Chey	(20.7)	(20.1)	(21.8)	(19.9)	(21.9)	21.0
Battambang/Krong Pailin	(24.6)	(23.3)	21.6	22.5	*	22.6
Kampot/Krong Kep	(21.3)	(20.9)	(20.9)	(19.5)	*	21.0
Krong Preah Sihanouk/ Kaoh Kong	a	(23.0)	(21.7)	(22.1)	(22.5)	22.7
Preah Vihear/Steung Treng	21.6	(20.8)	24.3	(23.0)	*	22.5
Mondol Kiri/Rattanak Kiri	22.8	(21.4)	(19.7)	(21.6)	(21.3)	21.5
Education						
No schooling	21.3	21.2	21.5	20.8	21.4	21.2
Primary	21.7	21.0	21.4	20.0	21.6	21.2
Secondary and higher	24.6	23.1	23.1	24.0	22.6	23.5
Wealth quintile						
Lowest	21.3	21.4	21.6	21.2	21.6	21.4
Second	21.5	20.7	22.2	20.3	21.4	21.3
Middle	21.5	21.2	21.4	20.1	21.4	21.1
Fourth	24.1	22.0	22.3	22.2	21.5	22.2
Highest	a	24.4	24.2	23.3	22.7	24.0
Total	22.6	21.8	22.4	21.6	21.8	22.1

Note: Age at first marriage is the age at which the respondent began living with his first spouse/partner. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
a = Omitted because less than 50 percent of the men began living with their wives/partners for the first time before reaching the beginning of the age group

8.3 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is commonly used as a proxy for the onset of women's exposure to sexual intercourse and risk of pregnancy and sexually transmitted disease. However, since some men and women are sexually active before marriage, it is also important to measure the impact of age at first sexual intercourse on fertility. The 2005 CDHS asked women and men how old they were when they first engaged in sexual intercourse. The results are presented in Table 8.4 and Tables 8.5.1 and 8.5.2.

If one compares the percentage of women who had first sexual intercourse by exact ages 15-25 (Table 8.4) with the percentage of women first married by exact ages 15-25 (Table 8.2), one finds very little variation, indicating that women rarely engage in sexual activity prior to marriage. The percent of women age 25-49 never having had intercourse is 9 percent. The median age at first intercourse is slightly older than the median age at first marriage: 20.4 years, compared with 20.1 years, respectively.

Table 8.4 Age at first sexual intercourse

Percentage of women and men who had first sexual intercourse by specific exact ages, percentage who never had intercourse, and median age at first intercourse, by current age, Cambodia 2005

	Percentage who had first sexual intercourse by exact age:					Percentage who never had	Number of	Median age at first
Current age	15	18	20	22	25	intercourse	respondents	intercourse
				WOMEN				
15-19	0.7	na	na	na	na	89.1	3,601	a
20-24	1.2	19.0	39.0	na	na	40.7	3,045	a
25-29	2.4	24.1	45.3	61.6	75.1	17.7	2,051	20.5
30-34	2.5	21.7	46.7	66.1	78.8	8.4	2,082	20.3
35-39	1.8	19.5	41.7	62.4	77.5	7.2	2,229	20.7
40-44	1.1	24.0	48.9	64.3	76.5	6.1	2,112	20.1
45-49	2.6	17.0	42.6	66.1	82.8	4.0	1,703	20.5
20-49	1.8	20.8	43.7	na	na	16.1	13,222	a
25-49	2.0	21.4	45.1	64.0	78.0	8.8	10,177	20.4
				MEN				
15-19	0.4	na	na	na	na	93.7	1,662	a
20-24	0.3	8.0	28.8	na	na	44.1	1,222	a
25-29	0.2	8.0	31.5	55.5	79.8	11.7	830	21.5
30-34	0.9	9.4	34.1	61.8	82.9	1.3	811	21.2
35-39	0.0	11.3	29.5	53.4	77.6	1.6	858	21.7
40-44	0.4	9.5	33.1	54.1	78.9	0.6	793	21.6
45-49	0.0	5.1	26.5	53.9	83.2	0.0	555	21.7
20-49	0.3	8.7	30.6	na	na	13.1	5,069	a
25-49	0.3	8.9	31.2	55.8	80.3	3.3	3,847	21.5

na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women/men had intercourse for the first time before reaching the beginning of the age group

Comparing the percentage of men who had first sexual intercourse by exact ages 15-25 (Table 8.4) with the percentage of men first married by exact ages 15-25 (Table 8.2), one again finds only small variations, indicating that men also do not typically engage in sexual activity prior to marriage. However, the percent of men age 25-29 never having had intercourse is 3 percent, about half the proportion of men who never married (6 percent). Among men, the median age at first intercourse is slightly younger than the median age at first marriage: 21.5 years of age, as compared with 22.1 years of age, respectively.

Table 8.5.1 shows differentials in the median age at first sexual intercourse by background characteristics for women, and Table 8.5.2 shows those differentials for men. For women (Table 8.5.1), the lack of pattern seen in the differentials for age at first marriage is repeated here for age at first sex, with no meaningful variation by age, little variation by region, and a one-year difference in the median age at first sexual intercourse between urban and rural residents (21.1 and 20.3 years, respectively). There is also a one-year difference between those who have secondary or higher education (21.4 years) and those who have less education (20.2-20.3 years). There are no differences in age at first marriage by wealth quintile. For men (Table 8.5.2), the same one-year difference in the

median age at first sexual intercourse exists between urban and rural residents (22.2 and 21.4 years, respectively). There is a one- to two-year difference between those who have secondary or higher education (22.5 years) and those who have less education (20.7-21.1 years). There is a difference of one year between men in the wealthiest quintile and men in the other quintiles (22.4 years compared with a little over 21 years).

Table 8.5.1 Median age at first sexual intercourse: women

Median age at first sexual intercourse among women age 25-49, by current age and background characteristics, Cambodia 2005

Background characteristic	Age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	22.0	20.7	21.2	20.9	20.9	21.1
Rural	20.3	20.2	20.7	20.0	20.5	20.3
Province						
Banteay Mean Chey	21.2	19.8	20.3	20.4	21.5	20.6
Kampong Cham	20.8	20.4	20.9	20.8	20.3	20.6
Kampong Chhnang	20.8	21.0	21.7	21.6	20.8	21.1
Kampong Speu	19.7	20.0	20.0	19.6	20.8	20.1
Kampong Thom	22.5	20.6	21.3	20.9	21.0	21.2
Kandal	20.0	20.2	21.3	19.6	20.4	20.3
Kratie	21.2	19.9	20.9	20.7	20.8	20.7
Phnom Penh	22.2	20.9	20.3	20.2	20.4	20.7
Prey Veng	20.1	20.3	21.1	19.3	20.0	20.1
Pursat	20.4	19.3	20.2	19.8	20.6	20.1
Siem Reap	20.9	21.3	21.3	20.9	21.3	21.1
Svay Rieng	19.5	20.1	20.3	19.8	20.6	20.1
Takeo	19.7	20.6	20.8	20.3	21.5	20.6
Otdar Mean Chey	18.8	19.0	20.0	19.8	21.1	19.7
Battambang/Krong Pailin	20.5	19.8	20.8	19.3	19.9	20.0
Kampot/Krong Kep	20.2	19.7	19.9	19.7	20.2	19.9
Krong Preah Sihanouk/ Kaoh Kong	19.0	19.7	21.1	20.3	20.3	20.1
Preah Vihear/Steung Treng	19.3	19.0	19.8	18.7	18.5	19.1
Mondol Kiri/Rattanak Kiri	20.2	18.0	18.8	18.7	19.2	18.9
Education						
No schooling	20.2	19.9	20.4	20.0	20.6	20.3
Primary	20.1	20.2	20.4	19.9	20.4	20.2
Secondary and higher	21.6	20.7	21.7	23.6	21.2	21.4
Wealth quintile						
Lowest	20.3	20.4	20.5	20.6	21.4	20.6
Second	20.3	20.2	20.6	20.4	20.3	20.4
Middle	20.2	20.0	20.7	20.5	20.3	20.3
Fourth	20.4	19.9	20.8	19.3	20.4	20.1
Highest	21.0	20.8	20.9	20.0	20.5	20.7
Total	20.5	20.3	20.7	20.1	20.5	20.4

Table 8.5.2 Median age at first sexual intercourse: men

Median age at first sexual intercourse among men age 25-49, by current age and background characteristics, Cambodia 2005

Background characteristic	Age 25-29	30-34	35-39	40-44	45-49	Men age 25-49
Residence						
Urban	21.8	21.8	22.2	23.1	22.0	22.2
Rural	21.5	21.1	21.6	21.3	21.6	21.4
Province						
Banteay Mean Chey	(22.6)	(23.3)	(22.6)	(22.7)	(22.1)	22.7
Kampong Cham	(22.0)	20.4	21.5	(20.7)	*	20.9
Kampong Chhnang	(21.6)	(22.6)	21.9	(21.5)	(21.1)	21.7
Kampong Speu	(20.4)	(21.1)	(21.0)	(20.3)	(21.6)	20.9
Kampong Thom	(21.9)	(21.6)	(22.4)	(21.6)	(22.2)	21.9
Kandal	(22.0)	21.0	(21.1)	(22.4)	(22.0)	21.7
Kratie	(23.5)	(22.2)	21.0	(22.4)	(22.6)	22.6
Phnom Penh	(21.6)	(22.1)	(22.3)	23.2	(22.2)	22.3
Prey Veng	(20.0)	(20.6)	(22.5)	(20.3)	(20.7)	20.7
Pursat	(21.8)	*	(22.9)	(20.9)	(22.8)	21.9
Siem Reap	21.6	(22.0)	(22.0)	(21.0)	(23.3)	21.8
Svay Rieng	(20.2)	(20.9)	(21.2)	21.0	(22.4)	21.1
Takeo	(22.0)	21.4	21.7	(22.2)	(22.1)	21.8
Otdar Mean Chey	(21.0)	(20.5)	(20.1)	(20.3)	(22.8)	21.1
Battambang/Krong Pailin	(22.1)	(20.6)	20.8	22.3	*	21.5
Kampot/Krong Kep	(21.3)	(21.3)	(21.8)	(21.0)	*	21.4
Krong Preah Sihanouk/ Kaoh Kong	(21.5)	(21.2)	(20.3)	(20.4)	(22.1)	21.1
Preah Vihear/Steung Treng	20.7	(22.3)	23.9	(22.7)	*	22.0
Mondol Kiri/Rattanak Kiri	20.5	(19.7)	(19.1)	(20.0)	(21.1)	20.2
Education						
No schooling	20.9	19.8	21.3	20.3	21.1	20.7
Primary	21.3	20.7	21.0	20.7	21.6	21.1
Secondary and higher	22.1	22.0	22.5	23.6	22.5	22.5
Wealth quintile						
Lowest	21.1	20.8	21.4	21.7	21.4	21.2
Second	21.4	20.6	22.1	20.6	21.8	21.4
Middle	21.0	21.0	21.2	20.8	21.0	21.0
Fourth	21.8	21.4	21.2	21.7	21.6	21.5
Highest	22.0	22.1	22.5	22.7	22.3	22.4
Total	21.5	21.2	21.7	21.6	21.7	21.5

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

8.4 RECENT SEXUAL ACTIVITY

In addition to age at first sexual intercourse, in the absence of effective contraception, exposure to pregnancy depends on the pattern of sexual activity. The most important factors are frequency of intercourse, postpartum abstinence, and abstinence for reasons other than being postpartum. Information on recent sexual activity, therefore, can be used to refine measures of exposure to pregnancy. Table 8.6.1 shows the pattern of sexual activity among women in the four weeks preceding the survey by background characteristics, and Table 8.6.2 shows the patterns among men.

Table 8.6.1 Recent sexual activity: women

Percent distribution of women by timing of last sexual intercourse, according to background characteristics, Cambodia 2005

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	8.3	2.2	0.3	0.1	89.1	100.0	3,601
20-24	42.7	12.1	3.2	1.4	40.7	100.0	3,045
25-29	61.6	14.3	5.6	0.8	17.7	100.0	2,051
30-34	67.8	14.2	7.4	2.3	8.4	100.0	2,082
35-39	66.7	14.6	9.9	1.6	7.2	100.0	2,229
40-44	62.5	14.4	14.7	2.3	6.1	100.0	2,112
45-49	52.0	20.0	22.1	1.9	4.0	100.0	1,703
Marital status							
Never married	0.0	0.0	0.1	0.0	99.8	100.0	5,352
Married or living together	78.9	18.3	1.8	1.0	0.0	100.0	10,087
Divorced/separated/ widowed	0.6	11.3	79.2	8.9	0.0	100.0	1,384
Marital duration[2]							
Married only once							
0-4 years	77.4	20.3	0.8	1.5	0.0	100.0	1,845
5-9 years	80.1	17.5	1.3	1.2	0.0	100.0	1,821
10-14 years	83.2	14.7	0.8	1.3	0.0	100.0	1,630
15-19 years	80.3	17.3	1.8	0.7	0.0	100.0	1,599
20-24 years	80.1	17.0	2.5	0.3	0.0	100.0	1,125
25+ years	71.2	23.6	5.1	0.1	0.0	100.0	1,222
Married more than once	77.8	19.1	1.4	1.6	0.0	100.0	845
Residence							
Urban	42.0	10.0	8.3	0.7	39.1	100.0	2,973
Rural	48.5	12.3	7.5	1.5	30.2	100.0	13,850
Province							
Banteay Mean Chey	48.9	15.9	4.7	1.6	28.9	100.0	650
Kampong Cham	47.2	13.5	8.2	1.9	29.2	100.0	2,116
Kampong Chhnang	46.4	12.3	9.6	0.9	30.7	100.0	556
Kampong Speu	47.7	13.6	9.5	1.4	27.8	100.0	870
Kampong Thom	46.1	13.5	8.0	1.8	30.6	100.0	799
Kandal	46.3	10.7	8.2	0.7	34.1	100.0	1,612
Kratie	51.9	13.3	5.4	1.7	27.7	100.0	331
Phnom Penh	39.0	10.4	9.1	0.5	41.0	100.0	1,896
Prey Veng	46.9	12.6	8.8	2.8	28.9	100.0	1,395
Pursat	45.0	11.7	5.3	2.5	35.5	100.0	480
Siem Reap	51.1	7.9	7.7	0.6	32.8	100.0	1,200
Svay Rieng	53.6	11.3	6.5	0.6	28.0	100.0	658
Takeo	48.2	13.7	7.4	1.1	29.6	100.0	1,102
Otdar Mean Chey	56.8	8.9	7.0	1.2	26.1	100.0	177
Battambang/Krong Pailin	45.3	10.6	6.1	1.0	37.0	100.0	1,247
Kampot/Krong Kep	50.6	11.9	5.8	1.0	30.7	100.0	839
Krong Preah Sihanouk/ Kaoh Kong	51.5	13.1	6.6	1.8	27.0	100.0	379
Preah Vihear/Steung Treng	55.3	12.3	6.6	1.9	23.9	100.0	301
Mondol Kiri/Rattanak Kiri	60.8	10.8	5.9	1.7	20.9	100.0	215
Education							
No schooling	55.0	14.3	11.7	2.2	16.9	100.0	3,270
Primary	49.9	12.9	7.8	1.3	28.2	100.0	9,389
Secondary and higher	35.7	7.9	4.1	0.6	51.5	100.0	4,165
Wealth quintile							
Lowest	50.6	13.2	9.1	2.7	24.4	100.0	3,017
Second	50.0	13.2	8.3	1.9	26.6	100.0	3,164
Middle	47.7	12.1	7.3	1.2	31.7	100.0	3,245
Fourth	48.3	12.7	6.0	0.6	32.4	100.0	3,308
Highest	41.9	9.3	7.6	0.6	40.7	100.0	4,089
Total	47.4	11.9	7.6	1.3	31.8	100.0	16,823

[1] Excludes women who had sexual intercourse within the past 4 weeks
[2] Excludes women who are not currently married

Table 8.6.2 Recent sexual activity: men

Percent distribution of men by timing of last sexual intercourse, according to background characteristics, Cambodia 2005

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of men
Age							
15-19	3.3	2.2	0.8	0.0	93.7	100.0	1,662
20-24	38.2	11.4	6.3	0.1	44.1	100.0	1,222
25-29	69.5	14.3	4.3	0.1	11.7	100.0	830
30-34	86.5	8.5	3.3	0.5	1.3	100.0	811
35-39	89.7	5.7	2.9	0.1	1.6	100.0	858
40-44	90.7	6.4	2.3	0.0	0.6	100.0	793
45-49	86.5	8.6	4.9	0.0	0.0	100.0	555
Marital status							
Never married	4.7	5.9	4.2	0.0	85.3	100.0	2,606
Married or living together	90.9	8.2	0.9	0.1	0.0	100.0	3,973
Divorced/separated/widowed	23.2	22.8	50.9	3.1	0.0	100.0	152
Marital duration[2]							
Married only once							
0-4 years	86.4	12.8	0.7	0.0	0.0	100.0	762
5-9 years	89.9	9.4	0.7	0.0	0.0	100.0	684
10-14 years	93.7	5.7	0.5	0.1	0.0	100.0	672
15-19 years	93.2	6.5	0.3	0.0	0.0	100.0	643
20-24 years	91.8	6.5	1.5	0.2	0.0	100.0	459
25+ years	89.2	6.9	3.8	0.0	0.0	100.0	350
Married more than once	92.7	6.8	0.5	0.0	0.0	100.0	404
Residence							
Urban	54.3	10.0	4.9	0.0	30.8	100.0	1,133
Rural	56.3	7.1	3.0	0.1	33.5	100.0	5,598
Province							
Banteay Mean Chey	56.6	9.3	1.8	0.0	32.2	100.0	253
Kampong Cham	57.7	7.9	3.4	0.3	30.6	100.0	870
Kampong Chhnang	51.6	5.8	4.9	0.6	37.0	100.0	234
Kampong Speu	55.8	8.1	2.7	0.0	33.4	100.0	348
Kampong Thom	55.1	6.7	2.8	0.0	35.4	100.0	331
Kandal	54.2	7.9	3.5	0.0	34.3	100.0	682
Kratie	62.8	4.1	3.1	0.0	29.9	100.0	128
Phnom Penh	52.0	11.5	5.7	0.0	30.8	100.0	737
Prey Veng	61.9	2.8	1.7	0.0	33.6	100.0	482
Pursat	47.6	7.7	3.0	0.0	41.7	100.0	202
Siem Reap	60.9	5.2	2.4	0.0	31.5	100.0	461
Svay Rieng	57.4	3.0	2.3	0.7	36.6	100.0	281
Takeo	53.3	6.7	2.3	0.0	37.7	100.0	491
Otdar Mean Chey	58.8	8.4	2.6	0.0	30.2	100.0	69
Battambang/Krong Pailin	52.4	12.5	3.6	0.0	31.5	100.0	456
Kampot/Krong Kep	60.7	4.6	3.2	0.0	31.6	100.0	321
Krong Preah Sihanouk/ Kaoh Kong	55.1	9.2	6.2	0.2	29.3	100.0	160
Preah Vihear/Steung Treng	55.7	12.3	1.8	0.3	29.8	100.0	116
Mondol Kiri/Rattanak Kiri	61.4	8.7	5.1	0.0	24.8	100.0	110
Education							
No schooling	75.2	8.1	3.3	0.1	13.2	100.0	606
Primary	58.9	7.0	3.2	0.1	30.9	100.0	3,261
Secondary and higher	48.6	8.2	3.5	0.1	39.6	100.0	2,865
Wealth quintile							
Lowest	60.2	6.3	3.5	0.1	30.0	100.0	1,078
Second	60.1	6.1	1.5	0.0	32.3	100.0	1,218
Middle	54.6	7.4	2.8	0.2	35.0	100.0	1,351
Fourth	52.8	7.4	3.4	0.2	36.1	100.0	1,468
Highest	54.1	9.9	4.9	0.0	31.0	100.0	1,616
Total 15-49	56.0	7.6	3.3	0.1	33.0	100.0	6,731

[1] Excludes men who had sexual intercourse within the past 4 weeks
[2] Excludes men who are not currently married

About one-half (47 percent) of all women were sexually active during the four weeks preceding the survey; 12 percent had not had sex within the past four weeks, but had done so within the past year; and 8 percent of women had not had sex in one year or longer. The remaining 32 percent had never had sexual intercourse. The proportion of women who were sexually active in the four weeks prior to the survey increases with age up to age 30-34 and declines thereafter. The proportion

sexually active in the past four weeks by marital duration is correlated with the variance by age. It peaks at marital duration of 10-14 years (when women who married at the age of 20 would be 30-34 years old, for example) and declines thereafter. Higher proportions of rural women (49 percent) were sexually active than urban women (42 percent).

It is interesting, given that only 47 percent of women report being sexually active in the past four weeks, that 56 percent of men report the same. Eight percent of men had not had sex within the past four weeks, but had done so within the past year; and 3 percent of men had not had sex in one year or longer. About the same proportion of men as women have never had sex: 33 percent. The proportion of men who were sexually active in the four weeks prior to the survey increases with age up to age 40-44, with 91 percent of men reporting sex in the past 4 weeks. The proportion of men sexually active in the four weeks prior to interview peaks at a marital duration of 10-14 years and declines thereafter. About the same proportions of rural men were sexually active (56 percent) as urban men (54 percent). Regarding education, the proportion recently sexually active falls from 75 percent among men with no education to 49 percent among women with secondary education or higher. Regarding wealth, those in the lowest two quintiles engaged in recent sexual activity more frequently than did those in the middle or higher quintiles. But as with women, both education and wealth are inversely related to the percentage who have never had sexual intercourse, such that the percentage of men who have never had sexual intercourse rises steadily with increasing education and wealth quintile. Recent sexual activity among men ranges from a low of 48 percent in Pursat to a high of 63 percent in Kratie.

8.5 Postpartum Amenorrhea, Abstinence, and Insusceptibility

Postpartum amenorrhea refers to the interval between childbirth and the resumption of ovulation, a period during which a woman is temporarily infecund. The length and intensity of breastfeeding influences the duration of postpartum amenorrhea, as has been shown in various studies. Women are considered insusceptible if they are not exposed to the risk of pregnancy, either because they are amenorrheic or are abstaining from sexual intercourse after a birth. Table 8.7 shows the percentage of births born in the three years prior to the survey for which their mothers are amenorrheic, abstaining from sex, and insusceptible, by the number of months since the child was born.

Table 8.7 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Cambodia 2005

Months since birth	Percentage of births for which the mother is: Amenorrheic	Abstaining	Insusceptible	Number of births
< 2	98.4	95.9	99.0	216
2-3	87.1	61.5	91.8	291
4-5	74.0	32.2	79.6	269
6-7	64.9	17.3	69.3	276
8-9	54.9	10.2	59.0	249
10-11	44.1	7.5	47.1	263
12-13	31.3	5.4	34.0	287
14-15	20.4	7.4	25.1	242
16-17	14.8	4.3	17.7	255
18-19	10.6	4.0	13.8	250
20-21	6.5	4.7	10.4	285
22-23	5.9	4.9	9.3	276
24-25	3.2	5.7	8.4	256
26-27	1.4	2.8	4.2	232
28-29	0.3	1.0	1.4	233
30-31	3.5	3.2	5.5	246
32-33	1.8	2.0	3.3	257
34-35	1.5	2.3	3.8	291
Total	29.2	14.8	32.5	4,675
Median	9.3	3.4	9.9	na
Mean	10.8	5.7	11.9	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable

In Cambodia, the typical length of postpartum amenorrhea is considerably longer than the typical length of postpartum abstinence and is the major determinant of postpartum insusceptibility to pregnancy. Cambodian women are insusceptible for a median period of 9.9 months, amenorrheic for a median period of 9.3 months, and abstain after childbirth for a median duration of 3.4 months. Twenty-nine percent of mothers to recently born children are postpartum amenorrheic, ranging from 98 percent within 2 months of birth, to 55 percent at 8-9 months postpartum. Ninety-six percent of mothers are still abstaining within two months of their births; by 6-7 months postpartum, 17 percent of new mothers

are abstaining postpartum. Eighty percent of mothers with recent births remain insusceptible to pregnancy through their fifth month postpartum.

Table 8.8 shows the median duration of postpartum amenorrhea, abstention, and insusceptibility to pregnancy according to background characteristics. The duration of postpartum insusceptibility is longer by about a month among women in the 30-49 age group than among those age 15-29. Rural and urban women abstain from sexual relations for the same amount of time (3.4 months). However, rural women experience postpartum amenorrhea that is, on average, longer by two months than women living in urban areas (9.6 and 7.7 months, respectively). Women living in Phnom Penh experience the shortest period of postpartum amenorrhea (4.6 months). Phnom Penh is also among the provinces with the shortest duration of postpartum abstinence (2.4) and thus the shortest duration of insusceptibility (5.9 months). Women living in Takeo have the longest period of postpartum amenorrhea (12.6 months), while women living in Kratie have the longest period of postpartum abstinence (5.0 months). Prey Veng and Kampong Thom have the longest total period of postpartum insusceptibility, with a median of 13.3 months. Women in the highest educational and wealth categories have the shortest periods of postpartum insusceptibility.

Table 8.8 Median duration of amenorrhea, postpartum abstinence and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Cambodia 2005

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility	Number of births
Mother's age				
15-29	8.9	3.3	9.4	2,677
30-49	10.0	3.6	10.5	1,998
Residence				
Urban	7.7	3.4	8.4	664
Rural	9.6	3.4	10.1	4,011
Province				
Banteay Mean Chey	10.8	4.4	11.3	208
Kampong Cham	9.4	4.7	9.8	573
Kampong Chhnang	10.7	3.6	11.1	193
Kampong Speu	11.6	3.8	11.9	270
Kampong Thom	12.0	2.0	13.3	237
Kandal	7.5	3.2	8.6	405
Kratie	11.3	5.0	11.5	118
Phnom Penh	4.6	2.4	5.9	366
Prey Veng	12.0	4.4	13.3	357
Pursat	10.4	2.1	11.0	130
Siem Reap	7.1	3.1	7.3	399
Svay Rieng	10.7	3.1	11.2	155
Takeo	12.6	3.5	12.6	282
Otdar Mean Chey	6.6	2.5	6.8	61
Battambang/Krong Pailin	8.5	2.4	8.7	335
Kampot/Krong Kep	7.8	3.4	8.2	230
Krong Preah Sihanouk/ Kaoh Kong	9.3	4.1	9.6	122
Preah Vihear/Steung Treng	8.6	3.8	9.2	135
Mondol Kiri/Rattanak Kiri	9.8	3.7	10.1	97
Mother's education				
No schooling	8.5	3.5	9.0	1,105
Primary	9.9	3.4	10.4	2,755
Secondary and higher	6.6	3.4	8.6	816
Wealth quintile				
Lowest	10.4	3.1	11.1	1,273
Second	10.6	3.7	11.1	1,040
Middle	10.2	3.7	10.7	829
Fourth	7.6	3.3	8.0	766
Highest	6.2	3.3	7.9	768
Total	9.3	3.4	9.9	4,675

Note: Medians are based on current status.

8.6 TERMINATION OF EXPOSURE TO PREGNANCY

The risk of childbearing declines as age increases. The term infecundity denotes a process rather than a well-defined event. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. Table 8.9 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy (infecundity) for women age 30 and over.

A woman is considered menopausal if she is not pregnant, not postpartum amenorrheic, and did not have a menstrual period for at least six months before the survey. Eleven percent of Cambodian women age 30-49 are menopausal. As expected, the proportion of women who reached menopause increases with age, particularly after age 45. It rises from 11 percent among women age 44-45 to 41 percent among women at the end of their reproductive years (age 48-49).

Table 8.9 Menopause

Percentage of women age 30-49 who are menopausal, by age, Cambodia 2005

Age	Percentage menopausal[1]	Number of women
30-34	4.0	2,082
35-39	5.6	2,229
40-41	5.6	840
42-43	8.3	857
44-45	10.9	730
46-47	24.6	725
48-49	40.8	663
Total	10.5	8,126

[1] Percentage of all women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey

FERTILITY PREFERENCES 9

The 2005 CDHS collected information on fertility preferences to measure the overall attitudes of women toward childbearing and the general course of future fertility. Data on fertility preferences are also useful for assessing the unmet need for family planning and the number of unwanted or mistimed births in the population. These, together with data on contraceptive prevalence, provide an estimation of the demand for family planning.

9.1 DESIRE FOR MORE CHILDREN

Currently married women in Cambodia were asked whether they want to have a child (or another child), and if so, how soon. Table 9.1 presents fertility preferences among currently married women by number of living children. Thirty-five percent of currently married women state that they want to have another child; this is a considerable increase from the 2000 CDHS, in which 24 percent of women stated that they wanted to have another child. Ten percent of women want to have a child within two years, 23 percent prefer to wait for two years or more to have another child, and 2 percent want another child but are undecided as to when they want to have that child. The majority of married women want no more children, (57 percent want no more or have been sterilized). This is a considerable increase from 37 percent wanting no more children in the 2000 CDHS. At the time of the 2000 CDHS, 28 percent of women reported that they did not know whether or not they wanted another child. Currently, only 4 percent of married women are undecided about whether they want more children. The information presented in Table 9.1 indicates that among women who would like to have another child, many prefer to space their pregnancies, and are potentially in need of family planning for that purpose, as are the large proportions of women who express the desire to limit their births.

Table 9.1 Fertility preferences by number of living children

Percent distribution of currently married women by desire for children, according to number of living children, Cambodia 2005

	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
Have another soon[2]	66.9	18.4	9.0	5.4	3.2	1.7	0.4	10.1
Have another later[3]	15.9	60.8	34.1	14.7	5.2	2.1	0.7	23.0
Have another, undecided when	4.3	2.5	2.8	1.9	1.1	0.6	0.1	1.9
Undecided	3.6	3.2	4.1	4.4	2.0	2.4	3.8	3.5
Want no more	3.8	12.3	46.1	67.8	82.3	83.6	83.2	55.5
Sterilized[4]	0.1	0.7	1.4	2.5	2.3	2.7	2.1	1.8
Declared infecund	5.4	2.2	2.3	3.3	3.9	6.8	9.6	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	470	1,825	2,224	1,911	1,369	1,008	1,281	10,087

[1] Includes current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization

Table 9.2 displays the percentage of currently married women who want no more children by number of living children and background characteristics. The proportion of currently married women who want no more children is relatively large (57 percent). Desire to limit childbearing increases with increasing number of living children, from 4 percent among married women with no living children to 85 percent among women with six or more living children. There are particularly significant increases

in the proportion of women wanting no more children between parities one and two (a difference of 35 percentage points; 2000 CDHS: 20 percentage points) and parities two and three (a difference of 23 percentage points). The large proportion of women indicating a desire to have no more children at parities two and three may indicate the existence of an ideal family size of two to three children.

It is interesting to note that 61 percent of women with no education want no more children, while 48 percent of women with secondary or higher education want the same. There is considerable variation across provinces; Kampong Speu has the smallest proportion of women wishing to curtail their fertility (39 percent), while Prey Veng has the highest proportion (69 percent). There is surprisingly little variation in women's desire to stop childbearing by urban/rural residence (59 percent and 57 percent, respectively) or by wealth (59 percent of the poorest women wish to cease childbearing, compared with 56 percent of the wealthiest).

Table 9.2 Desire to limit childbearing

Percentage of currently married women who want no more children, by number of living children and background characteristics, Cambodia 2005

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	5.3	17.0	60.0	76.9	88.9	88.2	89.3	58.9
Rural	3.4	12.1	45.0	69.1	83.8	86.1	84.9	56.9
Province								
Banteay Mean Chey	*	15.8	50.7	66.9	87.7	86.3	96.7	61.5
Kampong Cham	*	9.0	33.0	58.7	89.9	(82.5)	(85.2)	49.5
Kampong Chhnang	(6.3)	9.5	46.0	57.8	86.7	90.0	90.3	58.3
Kampong Speu	(11.0)	7.1	24.6	44.8	61.2	54.0	52.9	38.6
Kampong Thom	*	23.5	42.3	77.1	75.7	92.1	79.6	59.2
Kandal	*	9.1	37.8	77.2	91.4	93.2	96.4	58.5
Kratie	(6.1)	13.6	48.9	65.0	78.1	(77.7)	79.1	55.1
Phnom Penh	(2.5)	12.1	70.4	78.6	89.0	(94.3)	(87.8)	58.6
Prey Veng	(3.8)	21.1	66.6	90.5	89.8	100.0	100.0	69.0
Pursat	*	29.5	52.3	51.1	72.9	70.5	62.6	54.3
Siem Reap	(2.3)	8.7	36.1	59.7	79.5	86.6	83.0	51.2
Svay Rieng	*	16.6	60.4	82.6	92.1	87.9	90.7	65.7
Takeo	*	15.8	52.1	73.6	93.9	86.3	83.1	63.9
Otdar Mean Chey	(0.0)	6.0	42.5	69.7	90.8	92.1	94.7	61.0
Battambang/Krong Pailin	(0.0)	9.0	44.4	80.8	80.9	89.9	90.4	59.9
Kampot/Krong Kep	*	11.0	47.2	78.8	78.7	95.4	94.2	60.6
Krong Preah Sihanouk/ Kaoh Kong	*	13.8	34.1	51.1	85.7	87.1	88.3	54.1
Preah Vihear/Steung Treng	(6.7)	13.7	47.8	63.0	83.8	79.4	91.9	58.0
Mondol Kiri/Rattanak Kiri	(10.7)	18.6	37.7	43.6	58.4	65.3	74.3	44.4
Education								
No schooling	7.9	20.1	46.8	65.1	80.0	81.0	83.0	60.9
Primary	2.8	12.5	46.2	70.8	86.0	87.7	86.9	58.6
Secondary and higher	2.9	8.6	51.0	74.4	86.0	94.0	84.2	48.3
Wealth quintile								
Lowest	1.8	16.8	49.3	69.1	80.8	82.3	82.4	59.1
Second	6.7	15.7	44.7	69.1	82.9	83.0	86.0	57.7
Middle	4.2	8.5	42.1	65.0	87.4	90.3	87.4	57.4
Fourth	3.7	13.3	41.3	72.8	83.4	89.0	85.6	56.6
Highest	2.9	10.7	57.1	74.3	87.9	87.6	85.4	55.6
Total	3.8	12.9	47.5	70.3	84.6	86.3	85.3	57.3

Note: Women who have been sterilized are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes current pregnancy

9.2 NEED FOR FAMILY PLANNING SERVICES

Women who are currently married and who say either they want no more children or want to wait at least two years before having another child, but are not using contraception, are considered to have an unmet need for family planning. Women who are currently using family planning methods are said to have a met need for family planning. The sum of women with unmet need and met need constitutes the total demand for family planning.

Table 9.3 presents the demand for family planning services by background characteristics. Twenty-five percent of currently married women have an unmet need for family planning, with 9 percent having an unmet need for spacing and 16 percent having an unmet need for limiting. These numbers are considerably lower than the corresponding data collected in the 2000 CDHS, when 33 percent of currently married women had an unmet need for family planning. Most of the change in need over time occurred in the need for family planning for spacing: 17 percent of women had an unmet need for spacing in 2000, as compared with 9 percent of women with an unmet need for spacing in 2005. While in 2000, only 24 percent of women had a met need for family planning, that proportion increased significantly by 2005, with 40 percent of women having a met need for family planning. Increased met need has occurred even in the context of an increase in the total demand for family planning, from 56 percent in 2000 to 65 percent in 2005. These findings support the legitimacy of the 2005 CDHS data that reflect a decline in fertility, as discussed in Chapter 5.

The level of unmet need for spacing decreases with age, while the opposite is true for unmet need for limiting. The total unmet need for family planning varies little by age group among women younger than 45 years but falls for women age 45-49. Demand for family planning is highest among women age 30-39, with about three-quarters of women in this age range having a demand for family planning.

Unmet need is higher among rural women than among urban women (26 percent and 22 percent, respectively). Across provinces, the overall unmet need for family planning is highest in Banteay Mean Chey (33 percent) and lowest in Phnom Penh (16 percent). The highest provincial level of unmet need found in the 2000 CDHS was 50 percent, in Kampong Chhnang. Whereas unmet need for spacing remains about the same as the level of education increases, unmet need for limiting is negatively associated with education. Women with the highest levels of education have both the highest demand for family planning (70 percent) and the highest percentage of demand satisfied (72 percent). Women in the highest wealth quintile also have both the highest demand for family planning (71 percent) and the highest percentage of demand satisfied (76 percent).

Table 9.3 Need and demand for family planning among currently married women

Percentage of currently married women with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Cambodia 2005

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	23.5	2.2	25.7	19.4	1.5	20.8	42.9	3.7	46.6	44.7	363
20-24	17.9	5.8	23.7	26.4	8.1	34.6	44.3	13.9	58.3	59.3	1,671
25-29	14.0	11.5	25.4	24.0	17.7	41.6	37.9	29.2	67.1	62.1	1,567
30-34	8.7	17.2	25.9	15.6	33.4	49.0	24.3	50.6	74.9	65.5	1,729
35-39	4.9	21.5	26.3	6.5	43.2	49.6	11.3	64.6	76.0	65.3	1,826
40-44	2.8	24.1	26.8	1.4	41.3	42.6	4.1	65.4	69.5	61.4	1,652
45-49	0.6	20.3	21.0	0.3	20.9	21.2	0.9	41.3	42.2	50.3	1,278
Residence											
Urban	8.5	13.3	21.8	14.9	34.6	49.4	23.3	47.9	71.2	69.4	1,572
Rural	9.0	16.7	25.7	12.5	25.7	38.3	21.5	42.4	63.9	59.8	8,515
Province											
Banteay Mean Chey	11.6	21.8	33.4	13.7	23.2	36.9	25.3	45.0	70.2	52.5	432
Kampong Cham	12.1	12.7	24.8	15.1	22.2	37.3	27.2	34.9	62.1	60.1	1,282
Kampong Chhnang	13.0	19.5	32.5	9.0	25.2	34.2	22.0	44.7	66.7	51.3	328
Kampong Speu	12.5	11.8	24.3	12.5	23.0	35.4	25.0	34.8	59.7	59.3	537
Kampong Thom	3.9	15.0	18.9	16.2	32.2	48.4	20.1	47.2	67.3	72.0	486
Kandal	7.1	15.7	22.8	14.3	25.5	39.8	21.4	41.2	62.6	63.6	929
Kratie	11.2	18.7	29.9	13.4	21.2	34.6	24.6	39.9	64.5	53.6	219
Phnom Penh	5.3	10.8	16.1	19.3	38.4	57.7	24.6	49.2	73.8	78.2	946
Prey Veng	6.8	22.7	29.6	7.3	27.9	35.2	14.1	50.7	64.8	54.4	880
Pursat	5.9	15.8	21.7	7.3	25.0	32.3	13.2	40.8	54.0	59.9	268
Siem Reap	10.8	18.7	29.5	12.2	17.0	29.3	23.0	35.7	58.7	49.8	711
Svay Rieng	6.3	19.6	25.9	8.4	28.4	36.7	14.7	47.9	62.7	58.6	425
Takeo	8.6	17.9	26.5	11.2	33.0	44.2	19.8	50.9	70.6	62.6	688
Otdar Mean Chey	5.4	13.3	18.7	18.3	32.0	50.3	23.7	45.3	69.0	72.9	115
Battambang/Krong Pailin	11.2	13.2	24.4	14.3	32.2	46.6	25.5	45.4	70.9	65.7	704
Kampot/Krong Kep	7.4	18.8	26.2	11.4	28.5	39.9	18.8	47.3	66.1	60.3	527
Krong Preah Sihanouk/ Kaoh Kong	6.8	13.6	20.4	13.3	31.1	44.3	20.1	44.7	64.8	68.4	247
Preah Vihear/Steung Treng	9.6	20.1	29.6	10.1	20.7	30.7	19.7	40.7	60.4	50.9	208
Mondol Kiri/Rattanak Kiri	14.8	14.2	29.0	6.0	15.5	21.5	20.8	29.7	50.5	42.6	155
Education											
No schooling	8.8	18.8	27.6	6.8	23.4	30.3	15.6	42.3	57.9	52.3	2,291
Primary	9.0	16.9	25.9	13.1	27.4	40.5	22.1	44.3	66.4	61.1	5,959
Secondary and higher	8.6	10.7	19.3	19.8	30.7	50.4	28.4	41.3	69.8	72.3	1,836
Wealth quintile											
Lowest	10.7	20.7	31.4	9.8	20.9	30.7	20.5	41.6	62.1	49.4	1,957
Second	9.6	19.6	29.2	11.0	23.4	34.3	20.6	43.0	63.6	54.0	2,028
Middle	9.9	16.3	26.2	10.9	27.8	38.7	20.8	44.2	65.0	59.6	1,952
Fourth	8.1	14.2	22.3	13.9	27.4	41.3	22.0	41.6	63.6	65.0	2,037
Highest	6.3	10.5	16.8	18.5	35.4	54.0	24.9	45.9	70.8	76.2	2,112
Total	8.9	16.2	25.1	12.9	27.1	40.0	21.8	43.3	65.1	61.5	10,087

[1] *Unmet need for spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children, and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in *unmet need for spacing* are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child. *Unmet need for limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women who are not using family planning, whose last child was unwanted and who do not want any more children, and fecund women who are neither pregnant nor amenorrheic who are not using any method of family planning and who want no more children.

[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. *Using for limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

9.3 IDEAL FAMILY SIZE

Information on the ideal family size was collected in two ways. Respondents who had no living children were asked how many children they would like to have if they could choose the number of children to have. Respondents with children were asked how many children they would like to have if they could go back to the time when they did not have any children and could choose exactly the number of children to have. Even though these questions are based on hypothetical situations, they give an idea of the total number of children women who have not started childbearing will have in the future, and among older and high parity women, these data provide a measure of the level of unwanted fertility.

Table 9.4 shows that the majority of respondents were able to provide a numeric response to these questions. Three percent of women gave nonnumeric responses such as "any number," "depends on fate," or "do not know." Among women with no living children, 38 percent would like to have 2 children, 26 percent would like to have 3 children, and 20 percent would like to have 4. Only 6 percent of women with no living children want 5 or more children. As women's actual family sizes increase, so too do their ideal family sizes: only among those who have 6 or more children do as many as one-fifth of mothers state that 6 or more children was their ideal family size. The mean ideal family size for all women also shows a positive association with the number of living children: it increases from 2.8 children among childless women to 4.6 children among women with 6 or more children. The observed positive association between the ideal family size and the number of living children may arise for several possible reasons. First, women may tend to rationalize their family size by reporting their actual number of children as their ideal number, or second, they may have achieved their preferred number of children. A third possibility is that there has been a decrease of ideal family size in the youngest cohorts. The average ideal family size among all women who gave numeric responses is 3.3 while it is 3.6 children among currently married women.

Table 9.4 Ideal number of children

Percent distribution of all women 15-49 by ideal number of children, and mean ideal number of children for all women and for currently married women, according to number of living children, Cambodia 2005

Ideal number of children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
0	4.0	0.1	0.2	0.5	0.3	0.6	0.6	1.7
1	1.7	4.5	0.7	0.9	0.4	0.6	0.4	1.5
2	38.3	37.3	32.9	10.5	10.3	7.6	7.4	26.7
3	25.7	28.4	23.6	38.1	10.3	18.1	15.6	24.5
4	20.0	19.4	28.0	29.4	52.7	20.1	25.9	25.8
5	5.1	7.2	10.9	14.2	15.2	37.8	21.6	11.9
6+	1.1	1.2	2.1	3.4	6.5	11.5	22.7	4.5
Non-numeric responses	4.1	2.0	1.5	3.0	4.2	3.9	5.8	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,974	2,205	2,494	2,110	1,531	1,123	1,386	16,823
Mean ideal number of children for:								
All women	2.8	2.9	3.2	3.6	4.0	4.4	4.6	3.3
Number	5,728	2,160	2,457	2,047	1,466	1,080	1,306	16,244
Currently married women	3.0	2.9	3.2	3.6	4.0	4.4	4.6	3.6
Number	469	1,792	2,197	1,858	1,317	969	1,207	9,810

[1] Includes current pregnancy
[2] Means are calculated excluding women who gave non-numeric responses.

The mean ideal number of children for all women by five-year age groups and background characteristics is shown in Table 9.5. The mean ideal number of children increases with increasing age, from 2.8 children for women age 15-19 to 4.1 children for women age 45-49. The mean ideal number of children among rural women is only somewhat higher than among their urban counterparts. Women in Phnom Penh have the lowest mean ideal number of children (2.8), but it is only an average of one child less than the regions with the highest mean ideal number of children (Mondol Kiri/Rattanak Kiri and Kampong Speu with 3.8 children). The mean ideal family size varies negatively with education but by no more than half a child. Women in the wealthiest quintile have a slightly smaller ideal family size than women from the other quintiles (3.0 for the wealthiest quintile as compared with about 3.5 for the other quintiles).

Table 9.5 Mean ideal number of children

Mean ideal number of children for all women, by background characteristics, Cambodia 2005

Background characteristic	Mean	Number of women[1]
Age		
15-19	2.8	3,466
20-24	2.9	2,974
25-29	3.1	2,012
30-34	3.4	2,034
35-39	3.7	2,145
40-44	3.9	2,009
45-49	4.1	1,602
Residence		
Urban	3.0	2,849
Rural	3.4	13,394
Province		
Banteay Mean Chey	3.5	578
Kampong Cham	3.3	2,061
Kampong Chhnang	3.6	554
Kampong Speu	3.8	814
Kampong Thom	3.6	788
Kandal	3.4	1,584
Kratie	3.7	321
Phnom Penh	2.8	1,811
Prey Veng	3.1	1,300
Pursat	3.5	478
Siem Reap	3.5	1,193
Svay Rieng	3.2	658
Takeo	3.4	1,060
Otdar Mean Chey	3.5	177
Battambang/Krong Pailin	3.2	1,175
Kampot/Krong Kep	3.4	833
Krong Preah Sihanouk/ Kaoh Kong	3.3	370
Preah Vihear/Steung Treng	3.7	276
Mondol Kiri/Rattanak Kiri	3.8	213
Education		
No schooling	3.7	3,149
Primary	3.4	9,040
Secondary and higher	2.9	4,054
Wealth quintile		
Lowest	3.5	2,898
Second	3.5	3,074
Middle	3.4	3,130
Fourth	3.4	3,220
Highest	3.0	3,922
Total	3.3	16,244

[1] Number of women who gave a numeric response

9.4 FERTILITY PLANNING

The 2005 CDHS provides an opportunity to estimate levels of unwanted fertility. Unwanted fertility can be estimated in one of two ways. Women were asked a series of questions about each of their children born in the five years preceding the survey, as well as any current pregnancy, to determine whether the pregnancy was wanted then (planned), wanted later (mistimed), or not wanted (unplanned) at the time of conception. This information may in fact underestimate unplanned childbearing since women may rationalize unplanned births and declare them as planned once they occur. Another way of measuring unwanted fertility utilizes the data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size.

Table 9.6 shows that 19 percent of births in the five years preceding the survey were not wanted, down from 24 percent of births being not wanted in the 2000 CDHS. Nine percent of births were mistimed (wanted later); this figure has not changed since 2000. The proportion of unwanted births rises with birth order, more than doubling from 3 percent among first-order births to 11 percent among second-order births, increasing to 18 percent among third-order births, and making the largest jump between third- and fourth- and higher-order births, at which parity 37 percent of births are unwanted. The same pattern seen in the comparison of differentials between planning statuses by parity also occurs in the planning status differentials by age: the percentage of unwanted births rises with mother's age.

Table 9.6 Fertility planning status

Percent distribution of births in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Cambodia 2005

Birth order and mother's age at birth	Planning status of birth: Wanted then	Wanted later	Wanted no more	Total	Number of births
Birth order					
1	88.0	8.7	3.2	100.0	2,441
2	76.9	12.1	10.9	100.0	2,029
3	70.7	11.6	17.7	100.0	1,441
4+	55.8	6.8	37.4	100.0	2,872
Age at birth					
<20	86.9	7.7	5.3	100.0	927
20-24	78.4	11.8	9.6	100.0	2,780
25-29	73.1	11.5	15.3	100.0	1,832
30-34	67.7	8.2	24.1	100.0	1,669
35-39	59.0	5.1	35.9	100.0	1,117
40-44	47.1	3.1	49.8	100.0	433
45-49	(45.4)	(6.1)	(48.6)	100.0	24
Total	72.1	9.3	18.6	100.0	8,782

Note: Figures in parentheses are based on 25-49 unweighted cases.

Table 9.7 shows wanted fertility rates calculated using the second approach to measuring unwanted fertility. The wanted fertility rate is computed in the same way as the total fertility rate, except that unwanted births are excluded from the numerator. In this case, unwanted births are those that exceed the number mentioned as ideal by the respondent. This rate represents the level of fertility that would have prevailed in the five years preceding the survey if all unwanted births had been prevented.

The overall total wanted fertility rate is 2.8 children; it is about half a child lower than the actual total fertility rate of 3.4 children in the country. This is an improvement from 2000, when the difference between the wanted and actual fertility rates was one child. Overall, the gap between wanted and observed fertility is larger when the total fertility rate is still high, as can be observed by comparing figures across provinces. The gap between wanted and actual fertility is one child or greater in Battambang & Krong Pailin (a difference of 1.2 children), Preah Vihear & Steung Treng and Siem Reap (a difference of 1.1 children) and in Mondol Kiri/Rattanak Kiri (a difference of 1.0 children). Women in Kampong Cham and Takeo come closest to attaining their ideal fertility, with differences between wanted fertility rates and actual fertility rates of 0.4 children.

The gap between wanted and observed fertility rates is greater among women living in rural areas than in urban areas, likely indicating that women in rural areas have the desire to limit their births but may not have sufficient access to contraceptive technology. The difference between the two fertility rates is lowest among women with secondary and higher education and highest among women with no education, a finding that likely indicates an urbanization effect: women are more likely to be educated in urban areas, and women are also more likely to have access to modern contraceptive methods in urban areas, thus producing an association between education and greater propensity toward achieving desired fertility.

Table 9.7 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Cambodia 2005

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	2.3	2.8
Rural	2.9	3.5
Province		
Banteay Mean Chey	3.2	3.8
Kampong Cham	2.8	3.2
Kampong Chhnang	3.6	4.3
Kampong Speu	3.2	3.7
Kampong Thom	3.2	3.7
Kandal	2.6	3.1
Kratie	3.5	4.2
Phnom Penh	1.9	2.5
Prey Veng	2.5	3.0
Pursat	3.0	3.9
Siem Reap	3.1	4.2
Svay Rieng	2.5	3.0
Takeo	2.8	3.2
Otdar Mean Chey	3.3	4.2
Battambang/Krong Pailin	2.3	3.5
Kampot/Krong Kep	2.6	3.2
Krong Preah Sihanouk/ Kaoh Kong	3.2	3.9
Preah Vihear/Steung Treng	3.8	4.9
Mondol Kiri/Rattanak Kiri	4.2	5.2
Education		
No schooling	3.4	4.3
Primary	2.9	3.5
Secondary and higher	2.2	2.6
Wealth quintile		
Lowest	3.8	4.9
Second	3.2	3.9
Middle	2.6	3.2
Fourth	2.5	2.9
Highest	2.0	2.4
Total	2.8	3.4

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.

ADULT AND MATERNAL MORTALITY 10

Estimates of maternal mortality require a comprehensive and accurate reporting of maternal deaths. Such reporting can be obtained through vital registration, longitudinal studies of pregnant women, or repeated household surveys. The 2005 CDHS is the second population-based national survey to incorporate questions on maternal mortality, the first was just five years prior in the 2000 CDHS. CDHS asked female respondents a series of questions designed with the explicit purpose of providing the necessary information to make direct estimates of maternal mortality.

However, in order to avoid serious misinterpretation of the results of the survey, it is crucial for users of this information to understand the problems inherent in measuring maternal mortality. Direct estimates of maternal mortality rely on data on the age of surviving sisters of survey respondents, the age at death of sisters who have died, and the number of years that have passed since the death of the sisters. CDHS interviewers listed all the brothers and sisters born to the natural mother of female respondents, in chronological order, starting with the first born. Information was then obtained on the survivorship of each of the siblings, the ages of surviving siblings, the year of death or years since death of deceased siblings, and the age at death of deceased siblings. For each sister who died at age 12 or above, the respondent was asked additional questions to determine whether the death was maternity related, that is, whether the sister was pregnant when she died, and if so, whether the sister died during childbirth, and if not, whether the sister died within two months of the termination of a pregnancy or childbirth. Listing all siblings in chronological order of their birth is done with the intention of improving the completeness of reporting. Collecting data on both male and female siblings also allows the direct estimation of adult male and female mortality.

10.1 DATA QUALITY ISSUES

The estimation of adult and maternal mortality requires reasonably accurate reporting of the number of sisters and brothers the respondent ever had, the number that have died, and the number of sisters who died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. Table 10.1 shows the number of siblings reported by female respondents, and the completeness of the reported data on current age, age at death, and years since death.

Table 10.1 Data on siblings

Number of siblings reported by female survey respondents and completeness of reported data on sibling age, age at death (AD) and years since death (YSD), Cambodia 2005

	Sisters		Brothers		All siblings	
Sibling	Number	Percent	Number	Percent	Number	Percent
All siblings	44,039	100.0	46,040	100.0	90,079	100.0
Surviving	36,068	81.9	34,493	74.9	70,561	78.3
Dead	7,733	17.6	10,975	23.8	18,708	20.8
Missing survival information	238	0.5	572	1.2	810	0.9
Living siblings	36,068	100.0	34,493	100.0	70,561	100.0
Age reported	36,036	99.9	34,464	99.9	70,500	99.9
Age missing	32	0.1	29	0.1	61	0.1
Dead siblings	7,733	100.0	10,975	100.0	18,708	100.0
AD and YSD reported	7,627	98.6	10,777	98.2	18,403	98.4
AD missing	17	0.2	22	0.2	39	0.2
YSD missing	18	0.2	24	0.2	41	0.2
Both AD and YSD missing	71	0.9	154	1.4	225	1.2

As a group, CDHS female respondents were able to report the survival status of 99 percent of their siblings; whether or not a brother or sister was alive or dead was unknown for 0.9 percent of siblings. Sex ratio is defined as the number of males per 100 females. The sex ratio of siblings who have died is calculated as the number of brothers per 100 sisters: 10,975 brothers who died compared with 7,733 sisters who died. The sex ratio of siblings who have died was 142, which is very high and may be the consequence of the higher male mortality during the Khmer Rouge period. Fighting in the post-Khmer Rouge period continued until the signing of the Paris Peace Accord in 1993; this fighting would have also contributed to the high sex ratio of dead siblings. Overall, the data on siblings is nearly complete with age reported for 99.9 percent of living siblings and an age at death and years since death reported for 98.4 percent of siblings who have died, with little difference between brothers and sisters. Rather than exclude siblings with missing information from the analysis, the information on the birth order of siblings, in conjunction with other information, is used to impute the missing data.[1]

Another crude measure of data quality is the mean number of siblings, or the mean sibship size (Table 10.2). Sibship size is expected to decline as fertility declines over time. The monotonic decline in sibship size that would be expected to accompany declining fertility is supportive of more complete reporting of older siblings. Sex ratios at birth fall within the internationally accepted range of 103 to 105 for most but not all five-year periods, indicating there is no serious underreporting or overreporting of brothers or sisters. However, it should be borne in mind that any information that relies on recall will suffer from some degree of misreporting, especially if it pertains to deceased persons and occurred a long time before the survey.

Table 10.2 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of births, Cambodia 2005

Respondent's year of birth	Mean sibship size	Sex ratio at birth of siblings
1955-59	6.6	103.4
1960-64	6.5	107.6
1965-69	6.6	102.4
1970-74	6.6	99.0
1975-79	6.5	104.5
1980-84	6.4	108.2
1985-89	5.9	105.1
Total	6.4	104.6

10.2 ADULT MORTALITY

Because maternal mortality is a subset of adult mortality, we first estimate overall adult mortality. If overall adult mortality estimates display a general, stable, and plausible pattern, then credence is given to the maternal mortality estimates derived thereafter.

Direct estimates of male and female adult mortality are obtained from information collected in the sibling history. Age-specific death rates are computed by dividing the number of deaths in each age group by the total person-years of exposure in that age group during a specified reference period. In total, female respondents reported 90,079 siblings, of whom 44,039 were sisters and 46,040 were brothers (Table 10.1). Direct estimates of age-specific mortality rates for males and females are shown in Table 10.3. To minimize the impact of possible heaping on years since death ending in zero and five, direct estimates are presented for the period 0-6 years before the survey, which roughly corresponds[2] to January 1999 through December 2005. Aggregating the data over the age range 15-49 will reduce the effects of sampling variability. There are more male than female deaths in the seven years preceding the survey (860 compared with 574). The male mortality rate is 5.2 deaths per 1,000 population and it is higher than the female mortality rate of 3.1 deaths per 1,000 population.

[1] The imputation procedure is based on the assumption that the reported birth ordering of the siblings in the birth history is correct. The first step is to calculate birth dates. For each living sibling with a reported age and for each dead sibling with complete information on both age at death and year of death, the birth date is calculated. For a sibling missing these data, a birth date is imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age is calculated from the imputed birth date. In the case of dead siblings, if either age at death or year of death is reported, that information is combined with the birth date to produce missing information. If both pieces of information are missing, the age at death is imputed. This imputation is based on the distribution of the ages at death for those whose year of death is unreported but age at death is reported.

[2] The time period is not exact because as with all DHS calculations of exposure time, exposure is calculated separately for each respondent, counting back in time from the date of interview, and dates of interview in the CDHS spanned a time of six months.

Table 10.3 Adult mortality rates

Estimated adult mortality rates for women and men for the period 0-6 years prior to the survey, Cambodia 2005

Age	Deaths	Exposure	Mortality rates[1]
		WOMEN	
15-19	38	37,770	1.02
20-24	60	34,633	1.73
25-29	78	28,428	2.76
30-34	121	29,904	4.05
35-39	102	26,420	3.86
40-44	99	19,508	5.06
45-49	76	12,588	6.01
15-49	574	189,252	3.12[a]
		MEN	
15-19	62	37,687	1.63
20-24	92	36,570	2.51
25-29	120	29,017	4.14
30-34	201	28,953	6.93
35-39	151	24,165	6.25
40-44	141	15,881	8.90
45-49	93	8,847	10.52
15-49	860	181,121	5.18[a]

Note: Exposure years are calculated using a life table technique; here, they represent the number of person-years that men or women are exposed to the probability of dying.

[1] Mortality rates are expressed per 1,000 population.

[a] Age-adjusted rate

10.3 MATERNAL MORTALITY

Estimates of maternal mortality for the period 0-6 years before the survey are shown in Table 10.4. This period of time was chosen to reduce possible heaping of reported years since death on five-year intervals. Age-specific mortality rates are calculated by dividing the number of maternal deaths by years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility in the 2005 CDHS is 49 years), the overall rate for women age 15-49 is standardized by the age distribution of the survey respondents. Maternal deaths are defined as any death that occurred during pregnancy, childbirth, or within two months after the birth or termination of a pregnancy. This time-specific definition includes all deaths that occurred during the specified period even if the death is due to nonpregnancy-related causes. However, this definition is unlikely to result in over-reporting of maternal deaths because most deaths to women in the specified period are due to maternal causes, and maternal deaths in general are more likely to be under-reported than over-reported. For any given age group, maternal deaths are a relatively rare occurrence, and as such, the age-specific pattern should be interpreted with caution

There were 98 maternal deaths in the seven years preceding the survey. The maternal mortality rate, which is the annual number of maternal deaths per 1,000 women age 15-49, for the period 1999-2005 is 0.50. Maternal deaths accounted for 17 percent of all deaths to women age 15-49; in other words, about one in six Cambodian women who died in the seven years preceding the survey died from pregnancy or pregnancy-related causes. Maternal deaths still account for the same

proportion of overall deaths as they have in the recent past, as the 2000 CDHS found that maternal deaths accounted for 18 percent of all female deaths in the seven years prior to the survey.

The maternal mortality ratio, obtained by dividing the age-standardized maternal mortality rate by the age-standardized general fertility rate, is often considered a more useful measure of maternal mortality since it measures the obstetric risk associated with each live birth. Table 10.4 shows that the maternal mortality ratio for Cambodia for the period 1999-2005 is 472 deaths per 100,000 live births (or alternatively, 4.72 deaths per 1,000 live births). The maternal mortality ratio can be converted to an estimate of the lifetime risk of dying from maternal causes: 0.02 or, in other words, a risk of dying of 1 in 50.

The 2000 CDHS found a maternal mortality ratio of 437 deaths per 100,000 live births (4.37 deaths per 1,000 live births), indicating there has been no change in maternal mortality since 2000.

Table 10.4 Direct estimates of maternal mortality

Direct estimates of maternal mortality for the period 0-6 years prior to the survey, Cambodia 2005

Age	Maternal deaths	Exposure years	Maternal mortality rates [1]	Proportion of maternal deaths to all women deaths
15-19	5	37,770	0.13	12.8
20-24	9	34,633	0.27	15.6
25-29	14	28,428	0.48	17.5
30-34	28	29,904	0.94	23.3
35-39	22	26,420	0.81	21.1
40-44	16	19,508	0.81	16.0
45-49	5	12,588	0.38	6.3
Total	98	189,252	0.50[a]	17.1
General fertility rate (GFR)		106[a]		
Maternal mortality ratio (MMR)[2]		472		
Lifetime risk of maternal death[3]		0.017		

[1] Expressed per 1,000 woman-years of exposure.
[2] Expressed per 100,000 live births; calculated as the maternal mortality rate divided by the general fertility rate.
[3] Lifetime risk of maternal death = 1 – (1 – MMR/100,000) ^{TFR} where TFR represents the total fertility rate for the period 0-6 years prior to the survey (=3.6).
[a] Age-adjusted rate

INFANT AND CHILD MORTALITY 11

This chapter presents levels, trends, and differentials in neonatal, postneonatal, infant, and child mortality in Cambodia. Information on infant and child mortality rates not only enriches the understanding of a country's socioeconomic situation but also sheds light on the quality of life of the population under study. Studies of mortality indicators have shown the existence of differentials by socioeconomic and demographic characteristics; thus, the data in this report are disaggregated by these groupings.

Disaggregation of mortality indicators by different economic, social, and demographic categories helps to identify populations that are at high risk. Preparation, implementation, monitoring, and evaluation of population, health, and other socioeconomic programs and policies depend to a large extent on a target population. The data presented here can help identify at-risk populations and provide an indication of the current mortality situation, which can be compared with previously collected data to determine whether improvements in health and quality of life have occurred over time.

The mortality rates presented in this chapter are computed from information in the birth history section of the Women's Questionnaire. Each woman age 15-49 was asked whether she had ever given birth, and if she had, she was asked to report the number of sons and daughters who live with her, the number who live elsewhere, and the number who have died. In addition, she was asked to provide a detailed birth history of her children in chronological order starting with the first child. Women were asked whether a birth was single or multiple; the sex of the child; the date of birth (month and year, either by the Gregorian or Khmer calendar system); survival status; age of the child on the date of interview if alive; and if not alive, the age at death of each live birth. The rates of childhood mortality are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one. Childhood mortality rates are defined as follows:

- **Neonatal mortality:** the probability of dying within the first month of life
- **Postneonatal mortality:** the probability of dying between the first month of life and first birthday (computed as the difference between infant and neonatal mortality)
- **Infant mortality:** the probability of dying between birth and the first birthday
- **Child mortality:** the probability of dying between the first and fifth birthday
- **Under-five mortality:** the probability of dying between birth and the fifth birthday.

11.1 Assessment of Data Quality

The reliability of mortality estimates depends on the sampling variability of the estimates and on nonsampling errors. Sampling variability and sampling errors are discussed in detail in Appendix B. Nonsampling errors depend on the extent to which the date of birth and age at death are accurately reported and recorded and the completeness with which child deaths are reported. Omission of births and deaths affects mortality estimates, displacement of dates impacts mortality trends, and misreporting of age at death may distort the age pattern of mortality. Typically, the most serious source of nonsampling errors in a survey that collects retrospective information on births and deaths arises from an underreporting of both births and deaths of children who are not alive at the time of the survey. It may be that mothers are generally reluctant to talk about their dead children

because of the sorrow associated with any death, or they may live in a culture that discourages discussing the dead. Underreporting of births and deaths is generally more severe the further back in time an event occurred.

An unusual pattern in the distribution of births by calendar years is an indication of omission of children or age displacement. However, Table C.4 in Appendix C shows that the percentage of all births for which a month and year of birth was reported remains stable over time, ranging from 99.9 percent of births in 2006 to 97.5 percent of births prior to 1987. Although there is some difference in the reporting of a complete birth date between children who are alive (99 percent of births) and children who are dead (93 percent of births), this does not appear to have an effect on data quality.

Underreporting of deaths is usually assumed to be higher for deaths that occur very early in infancy. An examination of the ratios in Tables C.5 and C.6 show no significant number of early infant deaths being omitted in the 2005 CDHS. The proportion of neonatal deaths occurring in the first week of life (79 percent) and the proportion of infant deaths occurring during the first month of life (46 percent) are entirely plausible and in-line with the findings of the 2000 CDHS survey (70 percent and 42 percent, respectively). This indicates no evidence of selective underreporting or misreporting of age at death that would compromise the quality of the CDHS rates for childhood mortality.

11.2 Levels and Trends in Childhood Mortality

Table 11.1 presents neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods before the survey. Neonatal mortality in the most recent period is 28 deaths per 1,000 live births. This rate is significantly lower than postneonatal deaths (37 deaths per 1,000 live births) during the same period; that is, the risk of dying for any child who survived the first month of life increases during the period of the next 11 months. Thus, one in every 15 babies born in Cambodia (66 per 1,000) does not survive to his or her first birthday. Under-five mortality in Cambodia is 83 deaths per 1,000 live births.

Table 11.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Cambodia 2005

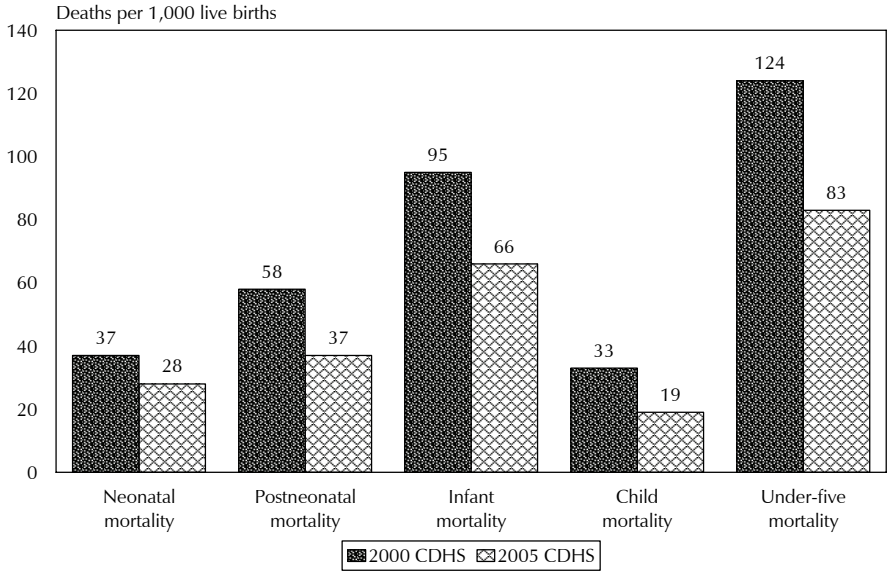
Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	28	37	66	19	83
5-9	43	65	109	21	127
10-14	44	50	93	34	124

[1] Computed as the difference between the infant and neonatal mortality rates

Table 11.1 shows that childhood mortality has declined substantially in the past five years. Between the two most recent five-year periods, infant mortality declined 39 percent, from 109 deaths per 1,000 live births in the period 5-9 years before the survey to 66 per 1,000 in the period 0-4 years before the survey. Under-five mortality also declined 35 percent in the same period from 127 deaths per 1,000 live births to 83 per 1,000.

Another way of looking at trends in mortality rates is a comparison of the results of the 2005 CDHS with the findings from the 2000 CDHS, in which data were collected using the same techniques, and estimates were calculated using the same methodology. Figure 11.1 compares childhood mortality rates for the five-year period preceding the 2000 CDHS and the 2005 CDHS and shows a significant drop in each of the childhood mortality rates.

Figure 11.1 **Trends in Childhood Mortality, 2000 and 2005 CDHS**



Figures 11.2 through 11.4 show in more detail the evolution of infant, child, and under-five mortality trends for several five-year periods preceding the 2000 CDHS and the 2005 CDHS. Infant mortality and under-five mortality have both declined significantly over the past 25 years, with the most dramatic declines coming since the late 1990s.

By comparing mortality estimates from the 2000 and 2005 CDHS for the 0-4, 5-9, and 10-14 years prior to each survey, it can be seen that the estimates from the two CDHS surveys are comparable. Infant mortality in the late 1990s was estimated to be 109 deaths per 1,000 live births by the 2005 CDHS (September 1995-March 2001), and 95 deaths per 1,000 live births by the 2000 CDHS (February 1995-July 2000). Infant mortality in the early 1990s was estimated to be 93 deaths per 1,000 live births by the 2005 CDHS (September 1990-March 1996) and 91 deaths per 1,000 live births by the 2000 CDHS (February 1990-July 1995). The under-five mortality data from the two surveys are even more similar. Under-five mortality in the late 1990s was estimated to be 127 deaths per 1,000 births by the 2005 CDHS (September 1995-March 2001), and 124 deaths per 1,000 live births by the 2000 CDHS (February 1995-July 2000). Under-five mortality in the early 1990s was estimated to be 124 deaths per 1,000 births by the 2005 CDHS (September 1990-March 1996), and 119 deaths per 1,000 live births by the 2000 CDHS (February 1990-July 1995). Taken as a whole, this indicates a strong comparability of the childhood mortality data between the two CDHS surveys, lending further support to the conclusion that childhood mortality rates have indeed declined.

Figure 11.2 Trends in Infant Mortality

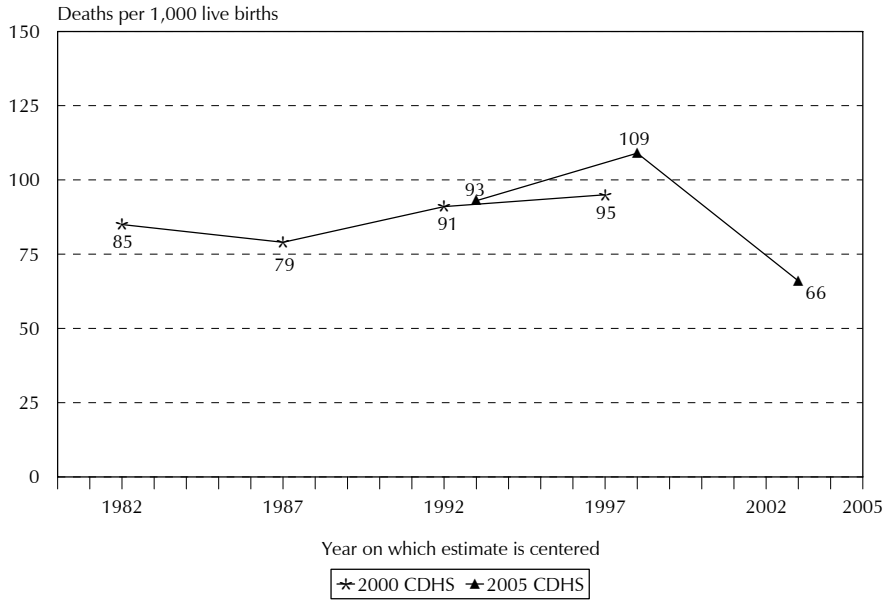


Figure 11.3 Trends in Child Mortality

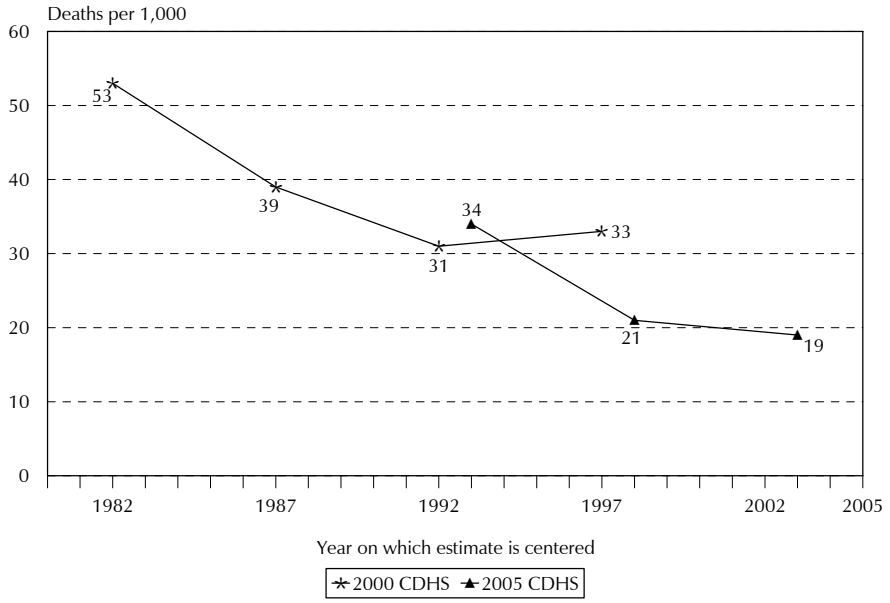
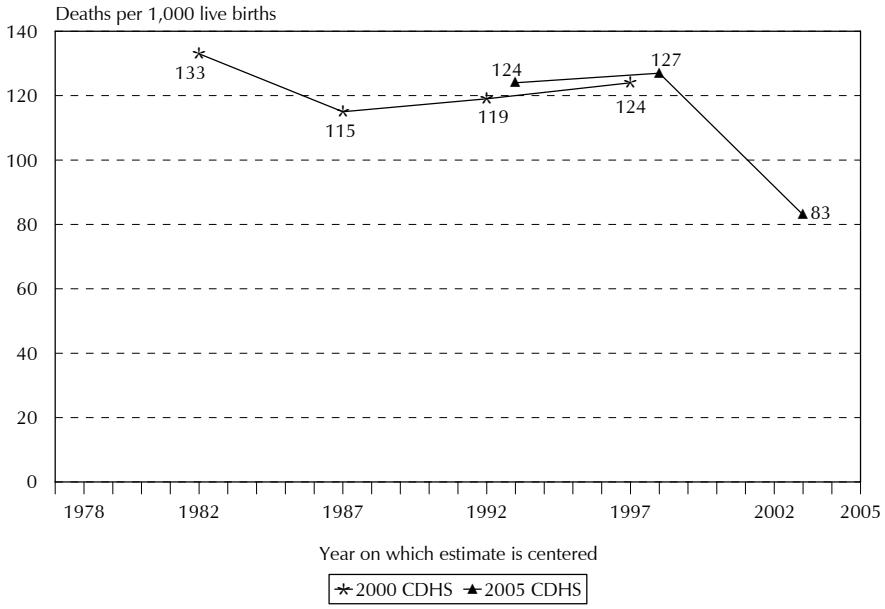


Figure 11.4 Trends in Under-five Mortality



11.3 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

From Table 11.2 and Figure 11.5, it is apparent that infant and child survival is influenced by the socioeconomic characteristics of mothers.[1] Mortality in urban areas is consistently lower than in rural areas. For example, infant mortality in urban areas is 65 deaths per 1,000 live births, compared with 92 deaths per 1,000 live births in rural areas—30 percent higher in rural areas than in urban areas. The urban-rural difference is somewhat greater in the case of child mortality, which is 43 percent lower in urban areas than in rural areas. Differentials in mortality by province are also pronounced, particularly when observing the large differences between the lowest and highest infant and under-five rates of mortality: Phnom Penh has an infant mortality rate of 42, while Prey Veng and Mondol Kiri/Rattanak Kiri have rates three times greater. Similarly, Phnom Penh's under-five mortality rate is 52, while that of Mondol Kiri/Rattanak Kiri is 165.

[1] To have a sufficient number of cases to ensure statistically reliable mortality estimates, rates presented in Tables 11.2 and 11.3 are calculated for a ten-year period.

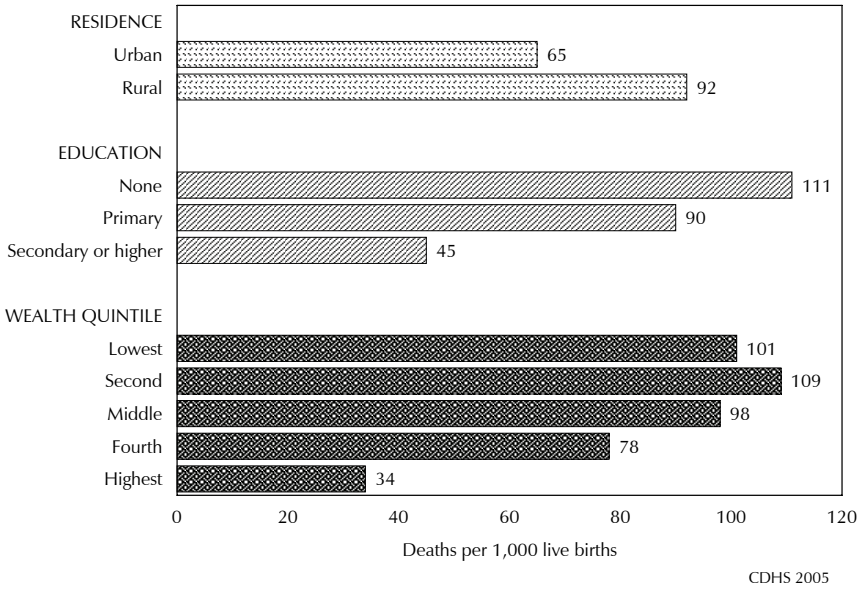
Table 11.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristic, Cambodia 2005

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	29	36	65	12	76
Rural	37	54	92	21	111
Province					
Banteay Mean Chey	34	42	76	22	96
Kampong Cham	35	60	94	18	111
Kampong Chhnang	36	51	87	15	101
Kampong Speu	41	66	107	17	122
Kampong Thom	38	49	87	20	106
Kandal	30	55	85	18	101
Kratie	37	47	84	34	116
Phnom Penh	24	18	42	10	52
Prey Veng	52	69	121	25	143
Pursat	27	59	86	21	106
Siem Reap	34	33	67	29	94
Svay Rieng	29	64	92	20	110
Takeo	52	43	96	7	102
Otdar Mean Chey	19	71	90	23	110
Battambang/Krong Pailin	29	68	97	21	116
Kampot/Krong Kep	37	30	67	17	83
Krong Preah Sihanouk/ Kaoh Kong	37	50	88	18	104
Preah Vihear/Steung Treng	34	77	111	39	146
Mondol Kiri/Rattanak Kiri	56	65	122	50	165
Mother's education					
No schooling	41	69	111	28	136
Primary	37	52	90	19	107
Secondary and higher	23	21	45	9	53
Wealth quintile					
Lowest	34	66	101	29	127
Second	45	64	109	23	129
Middle	38	60	98	18	114
Fourth	38	39	78	15	92
Highest	22	12	34	9	43

[1] Computed as the difference between the infant and neonatal mortality rates

Figure 11.5 Infant Mortality by Mother's Background Characteristics



As expected, mortality declines markedly as mother's education increases. Children born to mothers with no education suffered the highest mortality; according to the survey results, children of educated mothers with secondary and higher levels of education experience 59 percent lower infant mortality and 61 percent lower under-five mortality, compared with mothers with no education.

In addition, mortality declines markedly as the wealth of the household increases. Children born in poorer households suffered higher mortality than those born in wealthier households; children living in the wealthiest households had infant and under-five mortality rates 66 percent lower than those living in the poorest households.

11.4 DEMOGRAPHIC DIFFERENTIALS IN MORTALITY

Infant and child mortality is also influenced to a considerable extent by demographic characteristics of mothers and children. Table 11.3 shows the relationship between childhood mortality and different demographic variables. At every period, male children experience higher mortality than female children. The gender difference is most pronounced in the first month of life; neonatal mortality among boys is 42 deaths per 1,000, compared with 30 deaths per 1,000 among girls. The excess mortality among boys is a universal phenomenon presumably due to a higher biological risk of death during the first months of life.

Table 11.3 Early childhood mortality rates by demographic characteristics

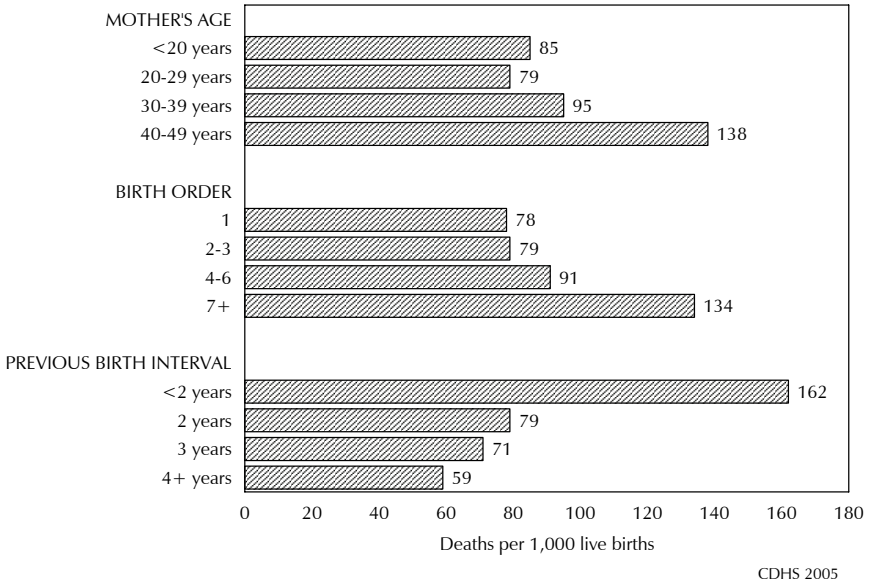
Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Cambodia 2005

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Sex of child					
Male	42	55	97	20	115
Female	30	49	79	20	97
Mother's age at birth					
<20	48	37	85	13	98
20-29	34	45	79	16	94
30-39	33	62	95	25	118
40-49	53	85	138	40	172
Birth order					
1	37	41	78	14	91
2-3	31	48	79	16	93
4-6	34	57	91	24	113
7+	57	76	134	36	165
Previous birth interval[2]					
<2 years	71	90	162	32	189
2 years	29	50	79	23	101
3 years	21	50	71	14	84
4+ years	24	35	59	15	73
Birth size[3]					
Small/very small	61	34	95	na	na
Average or larger	22	34	56	na	na

na = Not applicable
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the five-year period before the survey

The relationship between infant mortality and certain reproductive variables is illustrated in Figure 11.6. The relationship between maternal age at birth and childhood mortality is generally a U-shaped curve, being relatively higher among children born to mothers under age 20 and over age 40 than among mothers in the middle age groups. This pattern is especially obvious in the case of infant mortality, where mothers age 40-49 have children who experience an infant mortality rate considerably higher than that of younger mothers.

Figure 11.6 **Infant Mortality by Selected Demographic Characteristics**



While first-order births appear to be no more risky than second- or third-order births, significant increases in risk are most apparent for birth order seven and higher. Infant mortality rates for children of a seventh or higher birth order are twice that of a third or lower birth order child.

Short birth intervals also significantly reduce a child's chances of survival. For example, children born less than two years after a preceding birth are two-and-a-half times as likely to die within the first month of life as children born after just a two-year interval (71 deaths per 1,000 live births compared with 29 per 1,000). Infant mortality differentials are equally as striking; a child born less than two years after a preceding birth is 2.7 times as likely to die before his or her first birthday as a child born four or more years after a preceding birth.

Studies have shown that a child's weight at birth is an important determinant of its survival chances. Children's actual birth weights were unavailable for most children; instead, mothers were asked whether their child was very large, larger than average, average, smaller than average, or small at birth, since this has been found to be a good proxy for a child's weight at birth. Those children reported by their mother to be small or very small were almost three times more likely to die before the age of one month than those reported to be average or larger.

11.5 HIGH-RISK FERTILITY BEHAVIOR

The survival of infants and children depends in part on the demographic and biological characteristics of their mothers. Typically, the probability of dying in infancy is much greater among children born to mothers who are too young (under age 18) or too old (over age 34), children born after a short birth interval (less than 24 months after the preceding birth), and children born to mothers of high parity (more than three children). The risk is elevated when a child is born to a mother who has a combination of these risk characteristics.

Table 11.4 shows the percent distribution of children born to currently married women in the five years before the survey by these risk factors. Only 29 percent of births were not in any high-risk category. Twenty-four percent were first births to women between age 18 and 34—considered an unavoidable risk category—while 28 percent of births were in a single high-risk category, and 19 percent were in a multiple high-risk category. The most common single high-risk category was births of order three and above (15 percent), while the most common multiple high-risk category was births to mothers older than 34 years and of birth order three and above (13 percent).

Table 11.4 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Cambodia 2005

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women assigned to the risk category[1]
	Percentage of births	Risk ratio	
Not in any high-risk category	29.0	1.00	19.8[a]
Unavoidable risk category			
First-order births between ages 18 and 34	24.3	1.12	5.8
Single high-risk category			
Mothers's age <18	2.7	1.55	0.3
Mothers's age >34	3.0	2.19	6.7
Birth interval <24 months	7.2	1.82	9.4
Birth order >3	15.0	1.32	10.5
Subtotal	27.9	1.56	26.9
Multiple high-risk category			
Age <18 and birth interval <24 months [2]	0.2	*	0.1
Age >34 and birth interval <24 months	0.4	(3.70)	0.4
Age >34 and birth order >3	12.8	1.61	38.2
Age >34 and birth interval <24 months and birth order >3	2.0	3.79	3.6
Birth interval <24 months and birth order >3	3.4	3.16	5.2
Subtotal	18.7	2.16	47.4
In any avoidable high-risk category	46.6	1.80	74.3
Total	100.0	na	100.0
Number of births	7,789	na	10,087

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3
[a] Includes sterilized women

The risk ratios displayed in the second column of Table 11.4 denote the relationship between risk factors and mortality. For example, the risk of dying for a child who falls into any of the avoidable high-risk categories is 1.8 times that for a child not in any high-risk category. In general, risk ratios are higher for children in a multiple high-risk category than in a single high-risk category. Most vulnerable are children born of a mother older than age 34, who were born less than 24 months after a preceding birth and of a birth order greater than 3; they are nearly four times as likely to die as children who are not in any high-risk category. However, only 2 percent of births fall into this category. Among the single high-risk categories, having a mother age 34 or older results in a child having more than twice the risk of dying than children not in any high-risk category.

The final column of Table 11.4 illustrates the potential currently married women have for experiencing a high-risk birth. A woman's status at the time of the survey with regard to her age, time elapsed since the last birth, and parity, are used to classify her into the risk category she would fall if

she were to become pregnant at the time of the survey. For example, if a respondent who is age 40, has had four births and had her last birth 12 months ago were to become pregnant, she would fall into the multiple high-risk category of being too old, too high parity (four or more births), and giving birth too soon (less than 24 months) after a previous birth.

Overall, the majority of currently married women (74 percent) have the potential of giving birth to a child at elevated risk of mortality. About one in four women has the potential for having a birth in a single high-risk category, while about half of women have the potential for having a birth in a multiple high-risk category (mainly older maternal age and high birth order).

CAUSES OF DEATH AMONG INFANTS AND YOUNG CHILDREN

12

12.1 INTRODUCTION

The cause of death module was administered to all women eligible for the individual interview living in a 50 percent subsample of households selected for the 2005 CDHS. The cause of death module is also known as the verbal autopsy module. It was expected that the 50 percent subsample would provide a sufficient number of cases for analysis and was chosen to create a necessary balance between interviewer workload and data requirements. Survey findings indicate that recent mortality has declined to levels lower than was expected at the time of survey design.

Out of the 14,243 households interviewed in the CDHS, women living in the 50 percent subsample of 7,090 households were eligible for the cause of death module. This resulted in 8,417 women reporting on 3,048 live births since January 2002, 191 of which died prior to the survey. Thus, the number of cases for an analysis of causes of death is rather small.

12.2 CAUSE OF DEATH REPORTED BY THE MOTHER

Table 12.1 shows the distribution of 191 deaths among infants and young children by cause of death reported by the mother. These are all the deaths among live births occurring since January 2002. The cause of death reported by the mother was in response to an open-ended question "What do you think was the cause of (NAME)'s death?" posed without any mention of symptoms by the interviewer. The woman's response was recorded in the questionnaire and categorized at a later date.

Table 12.1 Causes of death among infants and young children

Percent distribution of deaths among infants and children born since January 2002 by cause of death reported by the mother, according to age at death, Cambodia 2005

Cause of death reported by mother	Born since January 2002 and died at age <1 month (neonatal)	Born since January 2002 and died at age >1 month (postneonatal)	All deaths among infants born since January 2002
Premature	24.2	0.9	10.5
Fever	3.2	13.0	9.0
Dengue hemorrhagic fever	1.0	10.8	6.7
Tetanus	1.9	5.5	4.0
Tetanus type of convulsion	6.9	3.1	4.7
Convulsion	0.3	2.1	1.4
Disease of respiratory system	9.0	9.1	9.1
Diarrhea	0.3	5.0	3.1
Birth defect	2.9	0.6	1.6
Refused breast milk	7.6	0.0	3.1
Typhoid fever	0.0	2.5	1.5
Malaria	0.8	1.6	1.3
Meningitis	0.0	4.1	2.4
Heart disease	0.9	1.9	1.5
Abdominal distension	0.0	2.8	1.7
Swelling	0.0	0.8	0.5
Pale	1.4	0.0	0.6
Constipation	0.0	0.6	0.4
Fever/convulsion	1.2	0.2	0.6
Fever/diarrhea	0.0	3.1	1.8
Pulmonary TB/meningitis	0.0	0.6	0.4
Fever/diarrhea/vomiting	0.0	1.5	0.9
Fever/cough/swelling	0.0	0.3	0.2
Liver disease	1.1	0.0	0.4
Cold hand/cold feet/ convulsion	0.2	0.0	0.1
Cold illness	0.0	1.1	0.6
Problem of delivery	7.0	2.7	4.4
Syncope	0.0	0.5	0.3
Cholera	0.0	0.5	0.3
Diphtheria	1.8	0.0	0.7
AIDS	0.0	0.1	0.1
Abdominal pain	0.0	0.4	0.2
Bleeding nose	0.2	0.0	0.1
Baby's hand with pustules like burn, erupted and die	1.3	0.0	0.5
Vomiting	0.0	3.5	2.0
Throat infection	0.0	3.6	2.1
Crying too long	2.1	2.8	2.5
Died immediately after birth	1.0	0.5	0.7
Poeus	1.2	2.3	1.8
Cursed by spirits	0.0	1.3	0.8
Don't know	16.6	5.2	9.9
Accident	6.1	5.2	5.6
Total	100.0	100.0	100.0
Number of deaths	79	112	191

Only 10 percent of women reported that they did not know the cause of death, although mothers are more likely to report not knowing the cause of neonatal deaths (17 percent) than deaths among older infants and children (5 percent). The most commonly reported causes of death are: baby being premature, fever, illness of the respiratory system, dengue hemorrhagic fever, accidents, and tetanus type convulsions (each reported for 5 to 11 percent of deaths).

Table 12.2 shows the same deaths, categorized by whether a diagnosis was made by a health worker. Overall, 38 percent of deaths were diagnosed by a health worker. This and all subsequent tables exclude deaths reported as due to accident (11 cases), and include only deaths due to illness, or deaths due to accident at birth/prematurity/malformation at birth.

Table 12.2 Infant and child deaths diagnosed by a health worker

Percent distribution of deaths among infants and young children born since January 2002 by whether a diagnosis was made by a health worker, according to cause of death reported by the mother, Cambodia 2005

Cause of death reported by mother	Diagnosis by a health worker			Total	Number of deaths[1] among infants and young children born since January 2002
	Yes	No	Don't know/ missing		
Premature	30.2	64.1	5.7	100.0	20
Fever	18.0	79.3	2.7	100.0	17
Dengue hemorrhagic fever	76.1	23.9	0.0	100.0	13
Tetanus	49.0	46.0	5.0	100.0	8
Tetanus type of convulsion	22.5	77.5	0.0	100.0	9
Convulsion	38.6	61.4	0.0	100.0	3
Disease of respiratory system	72.3	27.7	0.0	100.0	17
Diarrhea	25.8	74.2	0.0	100.0	6
Birth defect	35.3	64.7	0.0	100.0	3
Refused breast milk	0.0	65.6	34.4	100.0	6
Typhoid fever	89.9	10.1	0.0	100.0	3
Malaria	0.0	100.0	0.0	100.0	2
Meningitis	100.0	0.0	0.0	100.0	5
Heart disease	56.1	43.9	0.0	100.0	3
Abdominal distension	0.0	100.0	0.0	100.0	3
Swelling	62.9	0.0	37.1	100.0	1
Pale	0.0	100.0	0.0	100.0	1
Constipation	0.0	100.0	0.0	100.0	1
Fever/convulsion	0.0	79.5	20.5	100.0	1
Fever/diarrhea	23.9	76.1	0.0	100.0	3
Pulmonary TB/meningitis	100.0	0.0	0.0	100.0	1
Fever/diarrhea/vomiting	0.0	100.0	0.0	100.0	2
Liver disease	100.0	0.0	0.0	100.0	1
Cold illness	0.0	100.0	0.0	100.0	1
Problem of delivery	60.6	39.4	0.0	100.0	8
Syncope	0.0	100.0	0.0	100.0	1
Cholera	0.0	100.0	0.0	100.0	1
Diphtheria	100.0	0.0	0.0	100.0	1
Baby's hand with pustules like burn, erupted and die	0.0	100.0	0.0	100.0	1
Vomiting	76.8	23.2	0.0	100.0	4
Throat infection	31.0	69.0	0.0	100.0	4
Crying too long	49.7	43.3	7.1	100.0	5
Died immediately after birth	44.1	24.9	31.0	100.0	1
Poeus	63.3	36.7	0.0	100.0	4
Cursed by spirits	0.0	100.0	0.0	100.0	1
Don't know	0.0	44.0	56.0	100.0	19
Total	38.1	53.1	8.9	100.0	180

[1] Excludes deaths due to accident.

12.3 Symptoms Prior to Death

In order to estimate probable cause of death it is necessary to know what symptoms the infant presented during the illness that led to death. Mothers were asked a series of direct yes/no questions inquiring whether they saw specific symptoms during the illness that led to the death of their child. Symptoms are not mutually exclusive, an infant may present with multiple symptoms.

Table 12.3 shows the percentage of deaths that were preceded by specific symptoms. Twenty-seven percent of neonatal deaths were among infants that suckled normally during the first two days of life and then had difficulty suckling during the days prior to death. Nineteen percent of neonatal deaths were babies born after a difficult labor or delivery. Eighteen percent of neonates were malformed in some way. Eighteen percent of neonatal deaths had convulsions or spasms during the illness that led to death.

Causes of death among infants and children age one month or older are different, and thus present different symptoms. Two-thirds of these deaths were preceded by a period of fever, a common symptom of many illnesses. The next most commonly reported symptoms were cough (42 percent), severe fever (41 percent), and convulsions (40 percent). One-quarter were extremely thin during the illness prior to death and 16 percent had swelling in their feet or legs, common symptoms of malnutrition. Prior to death, one in five presented with a skin rash on the face or body, a symptom shared by those with measles, although neither exclusive to measles nor necessary in contracting measles.

Table 12.3 Symptoms during illness that led to death

Proportion of dead children born since January 2002 who presented with specific symptoms during the illness that led to death, or who were born after a difficult labor or delivery, according to age at death, Cambodia 2005

Symptom	Percentage of deaths that were preceded by specific symptoms
Age at death: <1 month (neonatal)	
Difficult delivery	19.2
Malformation	18.1
Normal sucking then could not suck	26.6
Convulsions, spasms	17.6
Cough	4.5
Cough and rapid breathing	4.5
Tetanus	3.7
Number of deaths	74
Age at death: >1 month or older	
Diarrhea	31.1
Diarrhea (severe)	20.3
Diarrhea and blood in stool	4.8
Cough	41.5
Cough and rapid breathing	36.9
Fever	66.0
Severe fever	40.5
Unconscious	26.0
Convulsions	39.5
Skin rash on body /face	20.4
Extremely thin	25.7
Swelling feet/legs	15.5
Bleeding nose/ mouth/gums	4.2
Black vomiting or bloody stool	10.4
Discharge from eyes	4.2
Number of deaths	106

Note: Multiple symptoms are possible.

12.4 Possible Cause of Death on the Basis of Symptoms

Using the symptoms observed by mothers, it is possible to create an algorithm to establish a possible diagnosis of cause of death. The more specific the algorithm, the more likely the diagnosis is of being correct; on the other hand, the more specific the algorithm the fewer the number of cases. In addition, only a limited number of questions were posed regarding symptoms, thereby making it possible to identify only a limited number of illnesses. Ten questions were posed regarding to symptoms among neonates, and 23 questions could potentially be asked regarding the illness that led to death among older infants and children. Questions posed for neonates may be fewer than 23 because the response to one question may make a subsequent question not applicable, and therefore was not asked. For example, only mothers who reported their infant had a cough would be asked for how long the cough lasted. The series of questions makes it possible to make 10 potential diagnoses: 4 among neonates and 6 among older infants and children. Of course, an infant can present with multiple symptoms and more than one diagnosis is possible for any given child. The criteria for making each possible diagnosis are defined in Table 12.4.

Twenty-five percent of neonatal deaths were among low birth weight infants. This was determined either by birth weight being under 2,500 grams or by the mother reporting that her baby was very small in size. Twenty percent of neonatal deaths were reported by the mothers to have encountered difficult delivery. Seven percent of neonatal deaths were experienced by babies who suckled normally during the first two days of life, then had difficulty suckling during the illness that led to death and also suffered convulsions. The combination of symptoms are indicative of neonatal tetanus. These deaths also had the restriction of being among those that occurred between 4 and 30 days of birth. Cough and rapid or difficult breathing were experienced by 5 percent of neonates in the illness prior to death.

Table 12.4 Possible diagnosis established from symptoms

Percentage of dead children born since January 2002 who presented with different types of symptoms or different combinations of symptoms during the illness that lead to death, and the possible diagnosis, by age at death, Cambodia 2005

Possible diagnosis	Symptoms or criteria for diagnosis	Percentage of deaths
Age at death: <1 month (neonatal)		
Low birth weight	Birth weight <2500 grams or size at birth very small[1]	24.9
Obstetrical problems	Delivery by C section	1.3
	Difficult delivery[1]	19.2
	Difficult delivery and C-section	1.3
Neonatal tetanus	Death at 4-30 days and normal sucking first two days of life	34.4
	Death at 4-30 days and normal sucking first two days of life and difficulty sucking during illness before death	26.6
	Death at 4-30 days and normal sucking first two days of life and difficulty sucking during illness before death and convulsions[1]	6.6
Respiratory infection	Cough	4.5
	Cough and difficult/rapid breathing[1]	4.5
Number of deaths		74
Age at death: >1 month (postneonatal)		
Diarrhea	Diarrhea lasting more than 2 days	26.5
	Severe diarrhea lasting more than 2 days	18.2
	Diarrhea lasting more than 2 days and blood in stool	2.7
	Severe diarrhea lasting more than 2 days and blood in stool[1]	18.4
Respiratory infection	Cough and difficult/rapid breathing lasting more than 2 days[1]	30.2
Measles	Age at death above 4 months and skin rash lasting more than 3 days and fever lasting more than 3 days[1]	6.5
Malaria	Severe fever lasting more than 2 days[1]	0.3
Malnutrition	Extremely thin lasting 1 month or more	7.0
	Swelling of feet/legs lasting one month or more	1.2
	Extremely thin lasting 1 month or more or swelling of feet/legs lasting one month or more[1]	7.5
Dengue hemorrhagic fever	Bleeding nose/mouth/gums or black vomit/bloody stools[1]	10.9
Number of deaths		106

[1] Criteria selected for inclusion in algorithm for final diagnosis.

Episodes of diarrhea can range from mild to severe and in mild form is unlikely to result in dehydration and death. Thus death as a result of diarrhea must meet a more stringent criteria such that the diarrhea be severe, last more than two days, and include blood in the stool. This level of diarrhea was reported among 18 percent of deaths among infants and children 1 month or older. Indications of respiratory infection were experienced in 30 percent of these deaths, including cough lasting more than 2 days accompanied by difficult or rapid breathing. As with diarrhea, a skin rash can be symptomatic of numerous illnesses, not all of which are sufficient to cause death. Therefore the potential diagnosis of measles comes only after applying more stringent criteria than a skin rash. The 7 percent of non-neonatal deaths with potential for having been caused by measles are derived from infants who died after 4 months of age, had a skin rash lasting more than 3 days, accompanied by fever lasting more than 3 days. Eight percent of non-neonatal deaths may have been caused by malnutrition, the children having been extremely thin for more than one month or experiencing swelling of the feet or legs for more than a month. Symptoms of dengue fever are more distinctive than those of many other illnesses. Ten percent of non-neonatal deaths were reported among children who experienced bleeding from the nose, mouth, or gums or black vomit or bloody stools, indicative of dengue hemorrhagic fever.

Any one symptom or combination of symptoms can be consistent with multiple diagnoses. The factors responsible for the death of an infant may be multiple, thereby making it difficult to establish a single cause of death. In addition, the principle cause of death may be different from the symptoms witnessed just prior to death. It is not possible with these data to distinguish between the two. Table 12.5 shows the percent distribution of deaths among infants and children age 1 month or older for which a diagnosis has been made. The diagnosis was bade base on the criteria specified in Table 12.4, across all the symptoms that apply. For example, 35 percent of non-neonatal deaths due to diarrhea also meet only the criteria for diarrhea. However, 35 percent of postneonatal deaths due to diarrhea (as defined by meeting the criteria in Table 12.4) also meet the criteria for having respiratory infection. Twenty-three percent of non-neonatal deaths meeting the criteria for death due to diarrhea also meet the criteria for two or more other illnesses. Table 12.5 shows the difficulty in establishing one primary cause of death. The fact that the symptoms of dengue hemorrhagic fever are more specific than symptoms for many other illnesses is evidenced in the 73 percent of dengue cases defined by the algorithm in Table 12.4 meet only the criteria for dengue hemorrhagic fever, as shown in Table 12.5.

Table 12.5 Multiple diagnoses

Percent distribution of deaths among children age 1 month or older born since January 2002 that meet the criteria of diagnosis of diarrhea, respiratory infection, measles, malnutrition, and dengue hemorrhagic fever according to whether or not they also meet the criteria of diagnosis of one other specific disease or two or more diseases, Cambodia 2005

	Diagnosis[1]							
Diagnosis[1]	Diarrhea	ARI	Measles	Malnutrition	Dengue hemorrhagic fever	Meet criteria of two or more other diseases[2]	Total	Number of deaths
Diarrhea	35.2[a]	35.4	0.0	2.2	4.2	22.9	100.0	19
ARI	21.6	48.3[a]	4.5	10.4	1.1	14.3	100.0	32
Measles	0.0	20.8	16.7[a]	0.0	0.0	62.5	100.0	7
Malnutrition	5.5	41.7	0.0	47.8[a]	0.0	5.0	100.0	8
Dengue hemorrhagic fever	7.1	2.9	0.0	0.0	72.4[a]	17.6	100.0	12

[1] According to the final algorithm defined in Table 10.4
[2] Is also associated with two or more other diagnoses, for example, diarrhea symptoms also associated with respiratory infection and measles
[a] Does not meet criteria of any other diagnosis

Ultimately, it would be useful to analyze the concordance between cause of death diagnosed via the algorithm of symptoms and mothers' reports. Then the next step would be to combine the two methods of assessing cause of death to make a final determination of potential cause of death. However, because of the small number of cases available, this chapter has focused on presenting the CDHS data on causes of death from mothers' reports. A design for an algorithm of symptoms was also presented.

MATERNAL HEALTH 13

This chapter presents findings on important areas of maternal health: antenatal, delivery, and postnatal care. This information, in combination with data on mortality, is useful in formulating programs and policies to improve maternal and child health services.

13.1 ANTENATAL CARE

The health care that a mother receives during pregnancy and at the time of delivery is important for the survival and well-being of both the mother and the child. Antenatal care (ANC) coverage is described according to the type of provider, number of ANC visits, stage of pregnancy at the time of the first and last visits, and services and information provided during ANC. It is also recommended that women receive two doses of tetanus toxoid vaccine, adequate amounts of iron and folic acid tablets, and iron syrup to prevent and treat anemia. Blood pressure checks and procedures to detect pregnancy complications are also part of ANC coverage. A well-designed and implemented ANC program facilitates detection and treatment of problems during pregnancy, such as anemia and infections, and provides an opportunity to disseminate health messages to women and their families.

Information on ANC coverage was obtained from women who had a birth in the five years preceding the survey. For women with two or more live births during the five-year period, data on antenatal care refer to the most recent birth only.

Source of Antenatal Care

Table 13.1 shows the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy. More than two in three (69 percent) women received ANC from trained personnel (doctors, nurses, and midwives) at least once. Sixty-one percent of women received care during pregnancy from midwives, 6 percent received care from a doctor, and 2 percent went to a nurse. More than one-fourth (28 percent) of women received no antenatal care for births in the preceding five years. The 2005 data show a significant increase in antenatal care compared with the 2000 CDHS, when only 38 percent of women had received antenatal care from a trained health professional. In 2000, more than half of women (55 percent) received no antenatal care.

Younger women are more likely to receive antenatal care from trained personnel, compared with older women. Mothers are more likely to receive care from a health professional for first births (80 percent) than for births of order six and higher (52 percent). There are differences in the use of antenatal care services between urban and rural women. Health professionals provided antenatal care for 79 percent of mothers in urban areas and 68 percent of mothers in rural areas. Additionally, in rural areas, 30 percent of women received no antenatal care at all, compared with 19 percent in urban areas.

Provincial differences in the source of antenatal care are significant: 92 percent of mothers in Svay Rieng received antenatal care from a health professional, compared with 28 percent of mothers in Mondol Kiri/Rattanak Kiri. The percentage of mothers who received no antenatal care is the highest in Mondol Kiri/Rattanak Kiri (66 percent) and the lowest in Svay Rieng and Pursat (8 percent). In Otdar Mean Chey, 23 percent of women received antenatal care from a traditional birth attendant.

Table 13.1 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, according to background characteristics, Cambodia 2005

Background characteristic	Doctor	Nurse	Midwife	Traditional birth attendant	Other	No one	Total	Number of women
Mother's age at birth								
<20	6.8	3.1	58.9	3.0	0.1	28.1	100.0	540
20-34	6.6	2.2	63.3	2.3	0.0	25.6	100.0	4,118
35-49	5.1	2.0	52.7	3.2	0.0	37.0	100.0	1,206
Birth order								
1	8.4	2.3	69.6	2.1	0.0	17.5	100.0	1,430
2-3	7.1	2.3	64.1	1.9	0.0	24.6	100.0	2,378
4-5	4.2	2.4	53.6	3.5	0.0	36.3	100.0	1,200
6+	3.6	1.7	46.7	3.7	0.0	44.4	100.0	857
Place where received ANC								
Public sector	8.4	3.3	87.7	0.6	0.0	0.0	100.0	3,611
Private sector	20.0	2.1	72.6	5.2	0.0	0.0	100.0	289
Home	1.3	1.0	60.2	37.5	0.0	0.0	100.0	290
Other	(19.5)	(6.5)	(55.8)	(14.0)	(0.1)	(0.0)	100.0	24
No antenatal care	na	na	na	na	na	na	na	1,652
Residence								
Urban	10.2	3.9	65.1	1.5	0.0	19.3	100.0	827
Rural	5.7	2.0	60.0	2.7	0.0	29.6	100.0	5,039
Province								
Banteay Mean Chey	5.2	1.0	60.4	4.9	0.0	28.6	100.0	256
Kampong Cham	1.8	1.2	54.7	1.5	0.0	40.9	100.0	738
Kampong Chhnang	0.7	8.2	75.7	3.8	0.0	11.7	100.0	218
Kampong Speu	0.7	0.8	57.9	5.4	0.0	35.1	100.0	335
Kampong Thom	0.6	0.4	58.2	3.6	0.0	36.9	100.0	300
Kandal	23.5	0.0	54.4	1.2	0.0	21.0	100.0	531
Kratie	0.5	0.0	51.4	0.8	0.0	47.2	100.0	137
Phnom Penh	11.9	0.0	73.2	0.0	0.0	14.9	100.0	476
Prey Veng	3.1	0.3	57.6	1.4	0.0	37.6	100.0	485
Pursat	0.0	7.4	81.4	2.5	0.4	8.3	100.0	167
Siem Reap	17.9	7.8	43.6	4.1	0.0	26.6	100.0	472
Svay Rieng	2.4	1.4	87.9	0.4	0.0	7.9	100.0	202
Takeo	0.9	2.6	81.0	2.0	0.0	13.5	100.0	372
Otdar Mean Chey	18.1	4.1	33.9	22.6	0.2	21.2	100.0	76
Battambang/Krong Pailin	5.5	2.0	74.1	1.2	0.0	17.2	100.0	404
Kampot/Krong Kep	0.6	3.3	65.1	0.4	0.0	30.6	100.0	290
Krong Preah Sihanouk/ Kaoh Kong	5.9	5.2	46.5	0.5	0.0	41.9	100.0	146
Preah Vihear/Steung Treng	0.6	4.0	33.7	7.9	0.0	53.8	100.0	153
Mondol Kiri/Rattanak Kiri	0.0	0.0	28.2	5.4	0.0	66.4	100.0	107
Mother's education								
No schooling	3.9	2.4	43.6	3.7	0.0	46.3	100.0	1,356
Primary	6.0	2.1	62.5	2.6	0.0	26.7	100.0	3,482
Secondary and higher	10.3	2.5	77.4	0.6	0.0	9.1	100.0	1,028
Wealth quintile								
Lowest	3.1	1.7	50.4	3.4	0.0	41.3	100.0	1,477
Second	2.6	2.1	58.9	3.7	0.0	32.6	100.0	1,320
Middle	5.3	2.9	60.3	2.8	0.1	28.7	100.0	1,077
Fourth	7.5	1.9	68.2	1.6	0.0	20.8	100.0	1,003
Highest	15.9	2.8	71.6	0.3	0.0	9.5	100.0	988
Total	6.3	2.2	60.8	2.5	0.0	28.2	100.0	5,865

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

The use of antenatal care services is strongly associated with the mother's level of education. Women with a secondary education or higher are more likely to receive antenatal care from any trained personnel (90 percent) than women with a primary education (71 percent) and women with no education (50 percent). Similarly, 46 percent of uneducated women receive no antenatal care, whereas the proportion of women who receive no care decreases to 27 percent and 9 percent for women with primary and secondary education or higher, respectively.

Antenatal care is more beneficial in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued throughout pregnancy. Health professionals recommend that the first antenatal visit should occur within the first three months of the pregnancy and continue on a monthly basis through week 28 of pregnancy and fortnightly up to week 36 (or until birth). If the first antenatal visit is made at the third month of pregnancy and as regularly as recommended, there will be a total of at least 12 to 13 antenatal visits. Table 13.2 shows that one-fourth of women (27 percent) make four or more antenatal care visits during their entire pregnancy. Table 13.2 includes antenatal care received from any type of provider listed in Table 13.1.

Table 13.2 Number of antenatal care visits and timing of first visit

Percent distribution of women who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Cambodia 2005

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits[1]			
None	19.3	29.6	28.2
1	8.4	11.7	11.2
2-3	28.5	34.0	33.2
4+	43.2	24.4	27.0
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit[1]			
No antenatal care	19.3	29.6	28.2
<4	27.9	22.3	23.1
4-5	31.8	24.8	25.8
6-7	17.9	16.4	16.6
8+	2.9	6.4	5.9
Total	100.0	100.0	100.0
Median months pregnant at first visit (for those with ANC)[1]	3.9	4.2	4.2
Number of women	827	5,039	5,865

Note: Total includes 18 women for whom information on number of ANC visits is not available and 29 women for whom information on number of months pregnant at time of first ANC visit is not available.

[1] ANC includes visits with all provider types listed in Table 13.1.

Twenty-three percent of women make their first antenatal care visit before the fourth month of pregnancy. The median duration of pregnancy for the first antenatal care visit is 4.2 months. This indicates that in Cambodia, women start antenatal care at a relatively late stage of their pregnancy.

Components of Antenatal Care

The effectiveness of antenatal checkups in ensuring safe motherhood depends in part on the tests and measurements done and the advice given during the checkups. The 2005 CDHS collected information on this important aspect of antenatal care by asking mothers who received antenatal checkups from all types of providers whether they received each of several components of ANC during their last pregnancy in the five years preceding the survey. Respondents were also asked whether they took iron tablets and intestinal parasite drugs during pregnancy. The results are shown in Table 13.3.

Sixty percent of mothers who received antenatal care reported that they were informed about pregnancy-related complications during their visits. Blood pressure was part of antenatal care for 81 percent of mothers. Urine and blood samples were taken from 24 and 18 percent of women, respectively. About two-thirds (63 percent) of women took iron tablets during pregnancy and 11 percent of women took intestinal parasite drugs.

Table 13.3 Components of antenatal care

Among women with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Cambodia 2005

	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:			Among women who received antenatal care for their most recent birth in the past five years, the percentage with the selected services:					
Background characteristic	Took iron tablets or syrup	Took intestinal parasite drugs	Number of women with a live birth in the past five years	Informed of signs of pregnancy complications	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women with ANC for their most recent birth[1]
Mother's age at birth									
<20	61.2	11.5	540	57.7	77.1	79.4	24.8	19.1	389
20-34	65.7	11.2	4,118	59.2	79.8	81.6	24.4	18.8	3,064
35-49	53.8	8.5	1,206	66.0	78.2	76.9	20.9	14.9	760
Birth order									
1	74.1	13.1	1,430	59.9	81.6	82.4	29.4	22.2	1,180
2-3	65.6	11.7	2,378	58.3	80.4	83.9	23.9	19.1	1,791
4-5	54.9	8.7	1,200	64.2	73.7	74.3	17.8	13.8	764
6+	47.5	6.3	857	62.7	77.9	73.7	19.0	11.4	477
Residence									
Urban	70.6	14.3	827	64.2	88.3	84.3	47.2	42.0	667
Rural	61.5	10.1	5,039	59.6	77.5	79.9	19.4	13.6	3,545
Province									
Banteay Mean Chey	61.5	3.1	256	43.8	78.5	64.6	17.7	20.9	183
Kampong Cham	54.5	4.1	738	48.2	78.0	86.1	12.0	7.5	437
Kampong Chhnang	75.6	6.8	218	68.1	73.8	87.9	4.8	2.9	193
Kampong Speu	52.5	16.5	335	49.9	62.5	67.6	12.2	19.7	217
Kampong Thom	56.7	8.2	300	43.7	84.7	80.0	18.6	12.8	188
Kandal	60.1	12.6	531	62.7	80.0	82.7	29.0	18.8	420
Kratie	44.1	13.5	137	59.6	82.2	71.6	13.2	5.8	72
Phnom Penh	72.5	13.3	476	68.6	94.8	94.9	60.9	48.7	406
Prey Veng	68.2	13.2	485	48.1	68.0	77.5	14.6	5.3	303
Pursat	87.5	16.8	167	89.7	89.4	52.5	10.6	4.3	153
Siem Reap	60.9	3.9	472	71.6	80.3	73.2	48.4	44.8	346
Svay Rieng	80.9	9.6	202	59.9	91.9	94.6	7.0	6.8	187
Takeo	79.8	7.1	372	60.2	71.7	82.6	18.9	12.1	322
Otdar Mean Chey	49.9	15.3	76	66.9	68.0	69.7	10.3	9.2	60
Battambang/Krong Pailin	76.6	16.4	404	77.9	83.9	86.1	28.8	15.2	335
Kampot/Krong Kep	59.4	23.7	290	58.2	76.6	89.8	8.6	6.4	201
Krong Preah Sihanouk/ Kaoh Kong	45.3	20.3	146	66.3	81.3	74.2	39.5	34.0	85
Preah Vihear/Steung Treng	35.5	4.1	153	31.4	64.6	64.6	11.3	8.5	71
Mondol Kiri/Rattanak Kiri	22.2	3.7	107	30.5	63.6	56.8	13.0	15.5	36
Mother's education									
No schooling	47.4	6.1	1,356	56.5	67.1	67.4	18.2	12.3	727
Primary	64.1	10.7	3,482	58.9	78.6	80.0	20.9	15.9	2,551
Secondary and higher	78.9	16.5	1,028	67.1	90.4	92.5	36.0	28.7	934
Wealth quintile									
Lowest	50.6	5.7	1,477	55.2	69.8	71.2	12.1	9.5	866
Second	59.5	8.8	1,320	57.3	74.5	76.3	15.9	10.0	890
Middle	63.4	10.8	1,077	62.3	76.4	80.8	18.3	13.0	768
Fourth	70.6	15.1	1,003	59.5	83.0	83.5	20.4	16.0	794
Highest	77.1	15.9	988	67.3	92.1	91.1	50.6	40.9	894
Total	62.8	10.7	5,865	60.3	79.2	80.6	23.8	18.1	4,213

[1] ANC includes visits with all provider types listed in Table 13.1.

Urban-rural differences exist for various components of antenatal care. Urban women are more likely to take iron and intestinal parasite drugs and about three times as likely to have blood and urine taken for testing. In Pursat, 90 percent of women were informed about signs of pregnancy complications, compared with 31 percent of women in Preah Vihear/Steung Treng and Mondol Kiri/ Rattanak Kiri. Antenatal care content is also greatly affected by the level of mother's education. Women with secondary or higher education were far more likely to have received iron tablets (79 percent) than women with no education (47 percent).

Tetanus Toxoid Vaccinations

Tetanus toxoid injections are given to women during pregnancy to prevent deaths from neonatal tetanus. Neonatal tetanus can result when sterile procedures are not followed in cutting the umbilical cord after delivery. In the 2005 CDHS, information was collected on the number of doses of tetanus toxoid vaccine the mother received and on the source from which the tetanus toxoid vaccination was received for all births during the five-year period prior to the survey. In addition, questions were included to ascertain whether mothers received tetanus injections prior to the last birth to determine if the last birth was fully protected from neonatal tetanus.

Table 13.4 considers whether the last birth was fully protected against neonatal tetanus. An infant is considered to be fully protected if any of the following criteria are met: (1) the mother had two tetanus toxoid injections during the pregnancy; (2) the mother had a tetanus toxoid injection during the pregnancy plus an additional injection prior to the pregnancy; or (3) the mother did not have a tetanus toxoid injection during pregnancy but had at least five injections prior to the pregnancy. According to the 2005 CDHS results, about two-thirds of last-born children (69 percent) during the five-year period before the survey were fully protected against neonatal tetanus. There are provincial differences in the percentage of last-born children who were fully protected against neonatal tetanus. In Takeo, 88 percent of births were fully protected, compared with less than half of births in Mondol Kiri/Rattanak Kiri.

For more than half of births in the past five years (54 percent), the mother received two or more tetanus toxoid injections. The 2000 CDHS found that only 30 percent of women received two or more doses of tetanus toxoid vaccine.

Table 13.4 Tetanus toxoid injections

Percent distribution of women who had a live birth in the five years preceding the survey by number of tetanus toxoid injections (TTI) during last pregnancy and prior to the last live birth, and percentage of last live births protected against neonatal tetanus, according to background characteristics, Cambodia 2005

	Protected			Not protected					
Background characteristic	Two or more TTI during last pregnancy	One TTI during last pregnancy, plus one additional prior to the pregnancy	No TTI during last pregnancy but at least 5 lifetime TTI	One TTI during last pregnancy and none prior to the pregnancy	No TTI during last pregnancy, less than 5 lifetime TTI	Don't know/ missing	Total	Number of women	Percentage of last births protected against neonatal tetanus
Mother's age at birth									
<20	56.3	9.9	0.8	10.0	21.9	1.0	100.0	540	67.1
20-34	56.1	13.6	2.3	8.2	18.4	1.4	100.0	4,118	72.1
35-49	46.8	10.2	2.5	10.2	28.3	2.0	100.0	1,206	59.5
Birth order									
1	63.7	9.9	0.9	9.5	15.2	0.9	100.0	1,430	74.4
2-3	55.5	15.7	2.7	6.9	17.8	1.3	100.0	2,378	73.9
4-5	47.1	11.9	2.1	10.3	26.3	2.3	100.0	1,200	61.2
6+	44.7	9.4	3.2	10.8	30.4	1.5	100.0	857	57.3
Residence									
Urban	55.8	14.5	3.9	9.2	15.7	0.8	100.0	827	74.2
Rural	54.0	12.3	1.9	8.7	21.6	1.5	100.0	5,039	68.2
Province									
Banteay Mean Chey	51.3	6.9	2.7	12.9	21.8	4.4	100.0	256	60.9
Kampong Cham	53.7	9.2	2.3	12.6	19.9	2.4	100.0	738	65.1
Kampong Chhnang	52.0	15.9	6.3	8.2	16.2	1.4	100.0	218	74.2
Kampong Speu	56.3	12.8	1.7	5.3	20.3	3.7	100.0	335	70.8
Kampong Thom	57.9	8.4	2.0	10.3	20.7	0.7	100.0	300	68.2
Kandal	59.2	13.1	2.5	7.2	18.0	0.0	100.0	531	74.8
Kratie	31.0	22.4	4.5	9.4	29.3	3.5	100.0	137	57.8
Phnom Penh	53.7	20.2	3.7	7.2	14.2	1.0	100.0	476	77.6
Prey Veng	67.1	7.5	0.7	6.7	17.7	0.3	100.0	485	75.3
Pursat	58.8	14.0	1.9	7.2	17.8	0.3	100.0	167	74.7
Siem Reap	41.7	9.8	1.1	10.0	36.1	1.3	100.0	472	52.5
Svay Rieng	57.8	16.4	1.2	11.5	12.7	0.4	100.0	202	75.4
Takeo	78.5	8.3	1.0	4.7	6.1	1.4	100.0	372	87.9
Otdar Mean Chey	53.1	14.8	2.1	4.4	25.6	0.0	100.0	76	70.0
Battambang/Krong Pailin	53.8	16.3	2.1	9.1	18.8	0.0	100.0	404	72.1
Kampot/Krong Kep	40.1	20.0	2.0	8.7	28.6	0.7	100.0	290	62.0
Krong Preah Sihanouk/ Kaoh Kong	53.6	8.9	2.6	10.3	21.9	2.6	100.0	146	65.2
Preah Vihear/Steung Treng	34.6	14.6	3.0	10.1	33.2	4.5	100.0	153	52.2
Mondol Kiri/Rattanak Kiri	28.6	12.7	1.4	8.8	47.0	1.6	100.0	107	42.6
Mother's education									
No schooling	43.1	11.0	1.6	10.1	32.7	1.5	100.0	1,356	55.7
Primary	55.7	12.2	2.1	9.3	19.1	1.6	100.0	3,482	70.0
Secondary and higher	63.7	16.0	3.4	5.4	10.7	0.7	100.0	1,028	83.2
Wealth quintile									
Lowest	46.4	10.7	1.6	11.4	28.7	1.1	100.0	1,477	58.8
Second	54.2	11.1	1.8	8.3	22.9	1.7	100.0	1,320	67.1
Middle	53.3	13.1	1.9	9.0	20.7	2.0	100.0	1,077	68.4
Fourth	60.7	12.6	2.5	8.2	14.8	1.3	100.0	1,003	75.7
Highest	60.3	16.8	3.6	5.9	12.0	1.3	100.0	988	80.7
Total	54.2	12.6	2.2	8.8	20.7	1.4	100.0	5,865	69.0

13.2 CHILDBIRTH AND DELIVERY

An important component of efforts to reduce the health risks of mothers and children is increasing the proportion of babies delivered under the supervision of health professionals. Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may cause death or serious illness to either the mother or the baby or both. Data on delivery care was obtained for all births that occurred in the five years preceding the survey.

Place of Delivery

A large majority of births (78 percent) in the five years before the survey were delivered at home, with only 22 percent being delivered in a health facility (Table 13.5). The percentage of deliveries occurring in the home has declined, as the 2000 CDHS found that 89 percent of births in Cambodia occurred at home. Women are more likely to deliver their first birth at a health facility (31 percent), compared with higher birth orders. Children born in urban areas (50 percent) are three times more likely to be delivered in a health facility than children born in rural areas (17 percent). The proportion of births delivered in a health facility is twice as high in Phnom Penh (78 percent) as in the next highest province, Kandal (37 percent). There is also a strong association between the level of education of mothers and the place of delivery; the proportion of births delivered in a health facility is only 10 percent for uneducated mothers, compared with 48 percent for mothers with secondary and higher education.

Table 13.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Cambodia 2005

Background characteristic	Health facility: Public sector	Health facility: Private sector	Home	Other	Missing	Total	Number of births
Mother's age at birth							
<20	16.3	5.5	78.2	0.1	0.0	100.0	831
20-34	17.3	5.1	77.5	0.1	0.1	100.0	5,546
35-49	15.3	2.7	81.6	0.4	0.0	100.0	1,411
Birth order							
1	24.4	6.9	68.6	0.0	0.1	100.0	2,140
2-3	16.7	5.4	77.8	0.0	0.1	100.0	3,063
4-5	11.9	2.9	84.9	0.3	0.0	100.0	1,512
6+	9.1	0.9	89.6	0.4	0.1	100.0	1,074
Residence							
Urban	36.0	14.1	49.8	0.1	0.0	100.0	1,093
Rural	13.7	3.2	82.9	0.2	0.1	100.0	6,696
Province							
Banteay Mean Chey	7.0	2.9	90.1	0.0	0.0	100.0	334
Kampong Cham	8.2	4.1	87.5	0.3	0.0	100.0	929
Kampong Chhnang	17.3	0.4	82.4	0.0	0.0	100.0	317
Kampong Speu	6.2	2.8	90.9	0.0	0.0	100.0	468
Kampong Thom	9.1	0.4	89.5	1.1	0.0	100.0	401
Kandal	27.9	8.8	63.3	0.0	0.0	100.0	681
Kratie	9.2	0.0	90.6	0.2	0.0	100.0	194
Phnom Penh	56.8	21.6	21.6	0.0	0.0	100.0	614
Prey Veng	11.5	1.6	86.6	0.3	0.0	100.0	618
Pursat	8.8	1.7	89.2	0.0	0.3	100.0	219
Siem Reap	18.4	1.3	80.2	0.0	0.2	100.0	663
Svay Rieng	7.9	0.3	91.2	0.0	0.6	100.0	256
Takeo	26.6	2.8	70.6	0.0	0.0	100.0	491
Otdar Mean Chey	4.3	1.6	94.0	0.2	0.0	100.0	103
Battambang/Krong Pailin	13.0	3.3	83.7	0.0	0.0	100.0	532
Kampot/Krong Kep	11.5	6.0	82.5	0.0	0.0	100.0	390
Krong Preah Sihanouk/Kaoh Kong	14.3	14.3	71.1	0.4	0.0	100.0	203
Preah Vihear/Steung Treng	5.4	0.6	94.0	0.0	0.0	100.0	218
Mondol Kiri/Rattanak Kiri	8.0	0.6	90.6	0.5	0.3	100.0	158
Mother's education							
No schooling	8.4	1.1	90.2	0.2	0.1	100.0	1,885
Primary	15.7	3.3	80.8	0.1	0.0	100.0	4,595
Secondary and higher	32.9	14.8	52.3	0.0	0.0	100.0	1,308
Antenatal care visits[1]							
None	4.7	1.1	94.1	0.1	0.0	100.0	1,652
1-3	16.3	4.1	79.4	0.2	0.0	100.0	2,610
4+	34.9	10.7	54.3	0.0	0.0	100.0	1,584
Wealth quintile							
Lowest	6.3	0.2	93.3	0.1	0.1	100.0	2,111
Second	9.4	0.6	89.9	0.1	0.0	100.0	1,786
Middle	12.4	1.6	85.5	0.4	0.0	100.0	1,381
Fourth	20.6	4.9	74.4	0.1	0.0	100.0	1,253
Highest	46.2	21.2	32.5	0.1	0.0	100.0	1,259
Total	16.8	4.7	78.3	0.1	0.0	100.0	7,789

Note: Total includes 20 women for whom information on number of antenatal care visits is not available.
[1] Includes only the most recent birth in the five years preceding the survey

Assistance at Delivery

Obstetric care by a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Table 13.6 shows the type of assistance during delivery by selected background characteristics. Forty-four percent of births are delivered with the assistance of a trained health professional, (i.e., a doctor, nurse, or midwife), an increase from 32 percent in 2000. Over half of births (55 percent) are delivered with the assistance of a traditional birth attendant (TBA). First births are more likely to be assisted by a trained health professional (54 percent) than subsequent births.

Table 13.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, and percentage delivered by caesarean-section, according to background characteristics, Cambodia 2005

Background characteristic	Doctor	Nurse	Midwife	Traditional birth attendant	Relative/ other	No one	Don't know/ missing	Total	Percentage delivered by C-section	Number of births
Mother's age at birth										
<20	6.4	1.6	36.2	55.5	0.2	0.0	0.0	100.0	1.5	831
20-34	6.9	0.8	37.1	54.3	0.5	0.3	0.1	100.0	1.9	5,546
35-49	4.9	0.3	34.1	59.4	0.9	0.4	0.0	100.0	1.6	1,411
Birth order										
1	10.2	1.5	42.5	45.1	0.6	0.2	0.1	100.0	3.2	2,140
2-3	6.8	0.8	38.2	53.5	0.5	0.1	0.1	100.0	1.7	3,063
4-5	3.9	0.4	30.4	64.1	0.6	0.6	0.0	100.0	0.9	1,512
6+	1.7	0.0	28.3	68.8	0.6	0.5	0.2	100.0	0.7	1,074
Place of delivery										
Health facility	28.2	3.4	68.1	0.3	0.0	0.0	0.0	100.0	8.4	1,676
Elsewhere	0.5	0.1	27.8	70.5	0.7	0.3	0.0	100.0	0.0	6,108
Residence										
Urban	17.2	1.9	51.0	29.6	0.2	0.0	0.0	100.0	5.9	1,093
Rural	4.7	0.6	34.1	59.5	0.6	0.3	0.1	100.0	1.1	6,696
Province										
Banteay Mean Chey	2.5	0.5	30.1	66.3	0.6	0.0	0.0	100.0	1.6	334
Kampong Cham	3.6	0.3	42.0	52.6	0.6	0.9	0.0	100.0	1.3	929
Kampong Chhnang	3.9	2.3	31.0	62.7	0.1	0.0	0.0	100.0	1.0	317
Kampong Speu	1.2	0.8	20.7	75.1	2.2	0.0	0.0	100.0	0.3	468
Kampong Thom	1.9	0.4	22.2	73.4	0.7	1.4	0.0	100.0	2.2	401
Kandal	15.5	0.0	58.0	26.5	0.0	0.0	0.0	100.0	2.1	681
Kratie	2.4	0.0	26.2	71.4	0.0	0.0	0.0	100.0	1.2	194
Phnom Penh	28.6	0.0	57.4	14.0	0.0	0.0	0.0	100.0	7.2	614
Prey Veng	1.1	0.0	26.9	71.2	0.0	0.8	0.0	100.0	1.4	618
Pursat	2.6	1.5	27.6	66.4	1.6	0.0	0.3	100.0	1.2	219
Siem Reap	3.5	3.2	21.9	71.1	0.0	0.2	0.2	100.0	1.5	663
Svay Rieng	2.8	0.9	25.2	70.4	0.0	0.0	0.6	100.0	0.9	256
Takeo	9.5	1.9	50.7	36.8	1.1	0.0	0.0	100.0	1.1	491
Otdar Mean Chey	2.9	1.9	10.4	83.6	0.0	0.0	1.2	100.0	0.3	103
Battambang/Krong Pailin	6.4	1.1	51.8	40.8	0.0	0.0	0.0	100.0	2.0	532
Kampot/Krong Kep	3.9	0.0	37.1	58.4	0.7	0.0	0.0	100.0	0.7	390
Krong Preah Sihanouk/ Kaoh Kong	2.9	1.0	53.2	43.0	0.0	0.0	0.0	100.0	2.9	203
Preah Vihear/ Steung Treng	1.8	0.2	10.9	84.3	2.7	0.0	0.0	100.0	0.7	218
Mondol Kiri/Rattanak Kiri	0.1	0.0	13.6	83.2	2.2	0.6	0.3	100.0	0.3	158
Mother's education										
No schooling	2.1	0.4	19.5	76.5	1.1	0.3	0.1	100.0	1.0	1,885
Primary	4.4	0.8	37.3	56.6	0.4	0.4	0.1	100.0	1.4	4,595
Secondary and higher	20.0	1.4	58.1	20.4	0.1	0.0	0.0	100.0	4.5	1,308
Wealth quintile										
Lowest	1.1	0.4	19.2	78.1	0.5	0.5	0.1	100.0	0.8	2,111
Second	1.8	0.4	26.8	70.1	0.6	0.2	0.1	100.0	0.9	1,786
Middle	3.1	0.6	35.9	59.1	0.8	0.5	0.0	100.0	1.1	1,381
Fourth	6.6	0.7	54.7	37.4	0.5	0.1	0.0	100.0	1.3	1,253
Highest	25.7	2.3	61.9	9.9	0.2	0.0	0.0	100.0	6.2	1,259
Total	6.5	0.8	36.5	55.4	0.5	0.3	0.1	100.0	1.8	7,789

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes 4 births for which information on place of delivery is not available.

Urban women are much more likely (70 percent) to receive assistance from a trained health professional during childbirth than rural women (39 percent). Conversely, rural women are more likely to receive assistance during birth from a traditional birth attendant (60 percent) than urban women (30 percent). In many provinces, the proportion of births assisted by a trained health professional is low. However, 86 percent of births in Phnom Penh and 74 percent of births in Kandal are assisted by a trained health professional. As expected, mother's education has a positive impact on delivery care. Births to women with primary education (43 percent) and secondary or higher education (80 percent) are more likely to receive delivery assistance from a health professional than births to women with no education (22 percent).

13.3 Postnatal Care and Practices

Postnatal Care

A large proportion of maternal and neonatal deaths occurs during the first 48 hours after delivery. Safe motherhood programs have recently increased their emphasis on the importance of postnatal care, recommending that all women receive a health checkup within two days of delivery. To assess the extent of postnatal care utilization, respondents who gave birth in the five years preceding the survey were asked whether they had received a health check after the delivery of their last birth. Table 13.7 shows the timing of the first postnatal checkup for women who had a birth in the past five years.

Thirty percent of women received no postnatal care. Sixty-four percent of mothers received postnatal care within the crucial first two days of delivery, with 32 percent receiving care within four hours of delivery. Urban women are more likely to receive postnatal care (74 percent) than rural women during the first two days after delivery (62 percent). Women with secondary or higher education (82 percent) are more likely to receive postnatal care within two days of delivery than women with either no education (55 percent) or only primary education (62 percent). More than one-third of women (37 percent) who did not deliver in a health facility did not receive a postnatal check-up.

Table 13.7 Timing of first postnatal checkup

Among women giving birth in the five years preceding the survey, the percent distribution of the mother's first postnatal checkup for the last live birth by time after delivery, according to background characteristics, Cambodia 2005

Background characteristic	Timing after delivery of mother's first postnatal checkup: Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/ missing	No checkup	Total	Number of women
Mother's age at birth								
<20	29.5	13.8	20.0	3.5	1.1	32.1	100.0	540
20-34	33.2	10.4	21.2	5.4	0.7	29.2	100.0	4,118
35-49	29.9	10.3	21.2	5.5	0.9	32.2	100.0	1,206
Birth order								
1	34.5	12.3	22.4	4.4	0.8	25.6	100.0	1,430
2-3	34.9	10.8	19.8	4.7	0.8	29.1	100.0	2,378
4-5	28.0	9.4	22.0	6.7	0.9	32.9	100.0	1,200
6+	26.6	9.5	20.9	6.2	0.4	36.4	100.0	857
Place of delivery								
Health facility	51.3	17.0	19.5	1.7	1.5	9.0	100.0	1,358
Elsewhere	26.4	8.8	21.5	6.3	0.5	36.5	100.0	4,507
Residence								
Urban	39.2	16.3	18.9	4.7	1.0	19.9	100.0	827
Rural	31.0	9.8	21.4	5.3	0.7	31.8	100.0	5,039
Province								
Banteay Mean Chey	53.8	1.9	19.9	2.5	4.1	17.8	100.0	256
Kampong Cham	41.1	8.2	31.5	2.3	0.0	16.9	100.0	738
Kampong Chhnang	35.7	5.6	14.1	5.5	1.8	37.3	100.0	218
Kampong Speu	21.8	20.9	12.9	9.2	1.3	34.0	100.0	335
Kampong Thom	12.6	2.8	14.8	3.5	0.6	65.6	100.0	300
Kandal	62.0	10.3	4.6	1.0	0.0	22.1	100.0	531
Kratie	33.9	3.4	41.2	7.0	0.7	13.9	100.0	137
Phnom Penh	46.3	18.6	13.7	2.0	1.6	17.8	100.0	476
Prey Veng	19.6	4.5	11.1	8.6	0.3	55.9	100.0	485
Pursat	37.5	2.4	21.8	8.1	0.0	30.2	100.0	167
Siem Reap	9.6	3.3	46.8	8.7	0.2	31.5	100.0	472
Svay Rieng	17.7	2.2	8.5	6.3	0.0	65.2	100.0	202
Takeo	27.3	9.9	40.5	6.0	1.1	15.1	100.0	372
Otdar Mean Chey	79.3	0.2	17.6	2.3	0.0	0.6	100.0	76
Battambang/Krong Pailin	37.8	43.8	11.0	1.4	0.3	5.8	100.0	404
Kampot/Krong Kep	10.7	16.1	23.7	12.8	0.0	36.8	100.0	290
Krong Preah Sihanouk/ Kaoh Kong	34.7	3.8	24.3	5.1	5.2	27.0	100.0	146
Preah Vihear/Steung Treng	8.5	2.4	13.4	12.5	0.0	63.3	100.0	153
Mondol Kiri/Rattanak Kiri	12.9	6.0	24.7	3.5	0.1	52.8	100.0	107
Mother's education								
No schooling	23.6	7.0	24.3	5.8	0.9	38.4	100.0	1,356
Primary	31.9	10.0	20.0	5.4	0.7	31.9	100.0	3,482
Secondary and higher	44.3	17.7	20.3	3.8	0.7	13.1	100.0	1,028
Wealth quintile								
Lowest	21.2	7.4	23.5	6.7	0.6	40.4	100.0	1,477
Second	25.0	8.0	23.1	6.4	0.4	37.1	100.0	1,320
Middle	31.1	10.6	22.5	5.0	0.8	30.1	100.0	1,077
Fourth	42.2	11.6	17.0	4.5	0.7	24.0	100.0	1,003
Highest	49.2	18.3	17.1	2.4	1.4	11.6	100.0	988
Total	32.2	10.7	21.1	5.2	0.8	30.1	100.0	5,865

Table 13.8 presents information on the provider of postnatal care for women who delivered in the five years preceding the survey. Forty-one percent of women received postnatal care from a health professional (midwife, doctor, or nurse), and 29 percent of women received postnatal care from traditional birth attendants. Health professionals are twice as likely to provide postnatal care to mothers in urban rather than rural areas (66 percent versus 37 percent). Similarly, mothers with secondary and higher education (76 percent) are much more likely to receive postnatal care from a trained health professional than women with either no education (20 percent) or only primary education (39 percent).

Table 13.8 Type of provider of first postnatal checkup

Among women giving birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check for the last live birth, according to background characteristics, Cambodia 2005

Background characteristic	Type of health provider of mother's first postnatal checkup								
	Doctor	Nurse	Midwife	Traditional birth attendant	Other	Don't know/ missing	No checkup	Total	Number of women
Mother's age at birth									
<20	7.5	1.3	27.7	31.5	0.0	0.0	32.1	100.0	540
20-34	7.6	1.0	34.2	27.8	0.1	0.0	29.2	100.0	4,118
35-49	5.6	1.4	29.5	30.8	0.6	0.0	32.2	100.0	1,206
Birth order									
1	10.7	1.3	38.4	23.7	0.3	0.0	25.6	100.0	1,430
2-3	8.0	1.2	35.5	25.9	0.3	0.0	29.1	100.0	2,378
4-5	4.2	1.2	26.6	35.1	0.0	0.0	32.9	100.0	1,200
6+	3.1	0.6	23.3	36.4	0.2	0.0	36.4	100.0	857
Place of delivery									
Health facility	27.3	3.6	59.6	0.5	0.0	0.0	9.0	100.0	1,358
Elsewhere	1.1	0.4	24.5	37.3	0.3	0.0	36.5	100.0	4,507
Residence									
Urban	19.1	2.1	45.0	13.9	0.0	0.0	19.9	100.0	827
Rural	5.2	1.0	30.6	31.2	0.3	0.0	31.8	100.0	5,039
Province									
Banteay Mean Chey	2.2	0.4	29.0	50.1	0.4	0.0	17.8	100.0	256
Kampong Cham	1.6	1.1	39.7	40.0	0.7	0.0	16.9	100.0	738
Kampong Chhnang	5.9	1.5	29.2	26.1	0.0	0.0	37.3	100.0	218
Kampong Speu	2.4	0.5	19.4	43.0	0.8	0.0	34.0	100.0	335
Kampong Thom	1.8	1.2	14.2	16.8	0.4	0.0	65.6	100.0	300
Kandal	15.4	0.0	52.0	10.5	0.0	0.0	22.1	100.0	531
Kratie	1.5	0.3	25.6	58.8	0.0	0.0	13.9	100.0	137
Phnom Penh	30.5	0.0	46.0	5.7	0.0	0.0	17.8	100.0	476
Prey Veng	4.8	1.9	18.5	18.9	0.0	0.0	55.9	100.0	485
Pursat	2.8	2.3	25.4	39.0	0.4	0.0	30.2	100.0	167
Siem Reap	9.2	3.1	16.0	40.2	0.0	0.0	31.5	100.0	472
Svay Rieng	4.1	0.9	15.7	14.1	0.0	0.0	65.2	100.0	202
Takeo	5.6	2.0	53.6	23.4	0.4	0.0	15.1	100.0	372
Otdar Mean Chey	1.7	1.2	13.6	82.9	0.0	0.0	0.6	100.0	76
Battambang/Krong Pailin	8.1	1.9	51.5	32.7	0.0	0.0	5.8	100.0	404
Kampot/Krong Kep	2.7	0.0	33.3	27.3	0.0	0.0	36.8	100.0	290
Krong Preah Sihanouk/ Kaoh Kong	1.6	0.8	46.1	24.6	0.0	0.0	27.0	100.0	146
Preah Vihear/Steung Treng	2.4	0.9	6.9	26.3	0.0	0.2	63.3	100.0	153
Mondol Kiri/Rattanak Kiri	0.0	0.0	11.9	34.9	0.4	0.0	52.8	100.0	107
Mother's education									
No schooling	2.4	0.8	16.9	41.1	0.4	0.0	38.4	100.0	1,356
Primary	5.8	1.1	31.8	29.1	0.2	0.0	31.9	100.0	3,482
Secondary and higher	18.0	1.6	56.1	11.3	0.0	0.0	13.1	100.0	1,028
Wealth quintile									
Lowest	1.5	0.5	15.8	41.6	0.2	0.0	40.4	100.0	1,477
Second	3.3	0.7	21.7	37.0	0.2	0.0	37.1	100.0	1,320
Middle	4.0	0.9	32.7	31.9	0.5	0.0	30.1	100.0	1,077
Fourth	6.6	1.4	48.5	19.4	0.1	0.0	24.0	100.0	1,003
Highest	24.9	2.6	56.0	4.8	0.1	0.0	11.6	100.0	988
Total	7.2	1.1	32.6	28.8	0.2	0.0	30.1	100.0	5,865

13.4 Perceived Problems in Accessing Women's Health Care

Many different factors can prevent women from getting medical advice or treatment for themselves. In the 2005 CDHS, women were asked about various problems they face in accessing health care. Table 13.9 shows that 89 percent of women reported having one or more problems in accessing health care for themselves.

Table 13.9 Problems in accessing health care

Percentage of women who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Cambodia 2005

Background characteristic	Problems in accessing health care									Number of women
	Getting permission to go for treatment	Getting money needed for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern no female provider available	Concern no provider available	Concern no drugs available	At least one problem accessing health care	
Age										
15-19	28.8	75.0	39.4	39.0	66.2	54.7	52.4	53.3	92.6	3,601
20-34	12.7	73.2	37.7	37.8	41.4	35.4	51.3	51.9	88.1	7,178
35-49	7.5	74.5	39.4	39.6	36.5	28.1	48.5	49.7	86.6	6,043
Number of living children										
0	24.4	73.2	37.1	37.2	59.9	50.1	51.8	52.8	90.8	6,296
1-2	8.6	72.7	38.4	37.8	35.5	30.4	50.0	51.0	86.3	4,534
3-4	8.0	73.4	38.1	37.7	35.2	27.1	48.8	49.2	86.1	3,549
5+	8.0	79.8	44.4	45.8	38.1	29.1	50.4	52.0	90.3	2,444
Marital status										
Never married	26.5	73.9	37.5	37.6	62.4	52.0	51.5	52.6	91.4	5,352
Married or living together	8.9	73.3	39.2	38.6	37.3	29.7	50.0	50.9	86.9	10,087
Divorced/separated/ widowed	6.0	80.0	39.6	43.8	33.3	30.8	49.9	50.6	89.4	1,384
Employed past 12 months										
Not employed	18.6	70.6	36.9	36.5	52.5	43.1	49.9	50.7	87.5	3,562
Employed for cash	11.7	71.4	34.0	34.5	39.9	33.2	48.3	49.4	86.4	7,618
Employed not for cash	15.2	79.9	46.3	45.8	47.1	38.0	53.9	54.6	92.0	5,626
Residence										
Urban	13.4	59.3	21.9	25.1	39.5	35.4	42.1	43.0	80.5	2,973
Rural	14.5	77.2	42.3	41.6	46.1	37.2	52.3	53.2	90.2	13,850
Province										
Banteay Mean Chey	13.4	92.6	74.1	79.2	73.8	72.1	92.0	95.0	99.7	650
Kampong Cham	8.1	82.9	24.7	21.2	42.7	38.8	59.3	59.7	94.1	2,116
Kampong Chhnang	7.0	91.9	24.9	48.7	54.6	47.5	24.1	20.1	98.4	556
Kampong Speu	21.3	88.1	56.3	57.0	60.3	42.0	58.6	62.8	99.0	870
Kampong Thom	19.6	69.7	34.7	34.8	22.7	21.4	11.0	15.2	75.5	799
Kandal	13.5	69.2	35.2	39.4	32.1	27.9	70.1	70.8	87.1	1,612
Kratie	5.1	77.8	50.0	55.9	61.8	64.4	93.3	94.4	98.3	331
Phnom Penh	15.0	60.6	22.1	25.8	40.1	31.1	24.4	28.0	78.5	1,896
Prey Veng	9.6	46.5	38.5	36.8	43.3	31.9	41.3	39.8	73.6	1,395
Pursat	12.8	76.8	44.6	46.6	52.6	21.8	16.0	14.7	93.2	480
Siem Reap	12.5	75.3	52.8	49.4	38.5	35.5	71.1	71.7	93.0	1,200
Svay Rieng	4.8	69.3	43.3	35.7	36.0	17.8	16.2	20.4	80.8	658
Takeo	41.9	88.4	40.1	28.0	42.3	34.6	44.8	38.8	98.2	1,102
Otdar Mean Chey	1.4	85.3	45.6	57.3	35.2	35.4	86.2	86.6	99.8	177
Battambang/Krong Pailin	16.2	66.0	32.2	25.7	57.0	42.3	41.2	39.4	83.1	1,247
Kampot/Krong Kep	12.0	89.6	54.5	58.3	64.9	59.2	91.4	94.9	99.7	839
Krong Preah Sihanouk/ Kaoh Kong	14.7	54.3	23.9	24.1	18.9	21.9	27.0	26.4	69.8	379
Preah Vihear/Steung Treng	9.0	91.4	59.4	66.9	54.6	38.6	84.1	89.5	97.9	301
Mondol Kiri/Rattanak Kiri	9.4	87.9	60.4	54.0	53.3	48.9	53.2	67.9	98.2	215
Education										
No schooling	11.6	84.1	50.9	51.1	46.1	36.8	54.6	56.3	93.9	3,270
Primary	14.1	76.3	40.3	40.5	44.8	37.5	51.0	51.9	89.5	9,389
Secondary and higher	16.7	61.1	25.5	25.0	44.4	35.6	46.1	46.4	82.0	4,165
Wealth quintile										
Lowest	13.5	85.6	55.9	57.4	50.8	40.5	53.4	55.4	94.1	3,017
Second	14.2	82.1	47.8	48.6	48.2	38.4	53.2	53.9	93.1	3,164
Middle	16.0	80.3	45.1	43.0	48.9	39.4	54.4	55.0	92.5	3,245
Fourth	14.8	74.4	33.1	31.8	42.9	36.7	54.7	54.4	89.4	3,308
Highest	13.2	54.2	18.3	19.4	36.8	31.3	39.8	41.3	77.0	4,089
Total	14.3	74.1	38.7	38.7	45.0	36.9	50.5	51.4	88.5	16,823

Note: Total includes 16 women for whom information on compensation for employment is not available.

The main problem in accessing health care was not having money for treatment (74 percent). Half of women were concerned that there would be no drugs or no health provider available at the health facility. Forty-five percent of women reported that they did not want to go alone to the health facility. Women in the 15-19 year age group cited problems in getting permission to go to a health facility (29 percent) and not wanting to go to the facility alone (66 percent). As expected, rural women were twice as likely to have problems related to distance to the health facility and need for transportation as urban women. Women with no education were more likely to have problems related to lack of money for treatment.

CHILD HEALTH 14

This chapter presents findings on several areas of importance to child health: characteristics of the neonate (birth weight and size at birth), vaccination status of children, and important childhood illnesses and their treatment. The information on birth weight and birth size is important for the design and implementation of programs aimed at reducing neonatal and infant mortality. Many of the deaths in early childhood can be prevented by immunizing children against preventable diseases and by ensuring that children receive prompt and appropriate treatment when they become ill.

14.1 CHILD'S SIZE AT BIRTH

Birth weight is a major determinant of infant and child health and mortality. Children whose birth weight is less than 2.5 kilograms, or children reported to be 'very small' or 'smaller than average' are considered to have a higher than average risk of early childhood death. For births in the five years preceding the survey, birth weight was recorded in the questionnaire if available from either a written record or the mother's recall. Because birth weight may not be known for many babies, the mother's estimate of the baby's size at birth was also obtained. Even though it is subjective, it can be a useful proxy for the weight of the child. Table 14.1 presents information on child's size at birth according to background characteristics.

Table 14.1 shows that 40 percent of babies were weighed at birth, which represents a significant increase since the 2000 CDHS when only 17 percent of babies were reported to have been weighed at birth. Among those births for which the mother was able to report the baby's weight, 8 percent were classified as low birth weight; i.e., they weighed less than 2.5 kilograms at birth. A higher proportion of first-born children (11 percent) and children of birth order six and higher (10 percent) are of low birth weight when compared with children of birth orders two through five (5 to 7 percent). Children born to mothers who smoke are of low birth weight (11 percent) in greater proportion than children born to mothers who do not smoke (8 percent). The proportion of births born of low birth weight does vary across provinces (from 4 to 14 percent); however, the proportions with a reported birth weight varies drastically, from a low of 18 percent in Preah Vihear/Steung Treng and Mondol Kiri/Rattanak Kiri to a high of 90 percent in Phnom Penh.

Table 14.1 also includes information on the mother's assessment of the baby's size at birth. In the absence of birth weight a mother's subjective assessment of the size of the baby at birth may be useful. However, this assessment may vary among respondents because it is based on the mother's own perception of what is small, average, or large for a baby and not on a uniform definition. Eighty-five percent of births were considered by their mothers to be of average or larger than average size. Eleven percent were perceived as smaller than average, and 4 percent were considered very small.

Table 14.1 Child's weight and size at birth

Percent distribution of live births in the five years preceding the survey with a reported birth weight by birth weight; percentage of all births with a reported birth weight and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Cambodia 2005

Background characteristic	Percent distribution of births with a reported birth weight[1]					Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth					
	Less than 2.5 kg	2.5 kg or more	Don't know/ missing	Total	Number of births		Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth												
<20	9.0	89.0	2.0	100.0	332	39.9	4.5	12.0	82.7	0.9	100.0	831
20-34	8.4	90.4	1.2	100.0	2,292	41.3	3.7	10.2	85.1	0.9	100.0	5,546
35-49	7.6	91.0	1.4	100.0	467	33.1	4.5	10.5	84.2	0.8	100.0	1,411
Birth order												
1	10.9	87.6	1.5	100.0	1,068	49.9	4.0	11.8	83.5	0.8	100.0	2,140
2-3	6.9	92.1	1.0	100.0	1,257	41.0	3.2	8.9	86.9	1.0	100.0	3,063
4-5	5.4	93.1	1.5	100.0	492	32.6	3.7	10.0	85.3	1.0	100.0	1,512
6+	10.4	88.1	1.5	100.0	274	25.5	6.6	12.6	80.1	0.7	100.0	1,074
Mother's smoking status[2]												
Smokes cigarettes/ tobacco	11.3	84.4	4.3	100.0	176	18.9	8.9	12.7	77.8	0.5	100.0	932
Does not smoke	8.2	90.7	1.1	100.0	2,914	42.5	3.3	10.1	85.6	0.9	100.0	6,857
Residence												
Urban	8.1	91.5	0.3	100.0	727	66.5	3.1	8.6	88.0	0.3	100.0	1,093
Rural	8.4	90.0	1.6	100.0	2,364	35.3	4.1	10.8	84.2	1.0	100.0	6,696
Province												
Banteay Mean Chey	7.4	89.1	3.5	100.0	84	25.2	7.0	8.1	84.6	0.3	100.0	334
Kampong Cham	9.1	89.5	1.3	100.0	434	46.8	6.4	18.0	74.6	0.9	100.0	929
Kampong Chhnang	10.1	88.4	1.6	100.0	102	32.1	1.8	8.9	89.3	0.0	100.0	317
Kampong Speu	10.8	87.2	2.0	100.0	108	23.0	6.3	22.7	70.4	0.7	100.0	468
Kampong Thom	14.1	84.7	1.2	100.0	91	22.8	4.9	17.3	77.6	0.2	100.0	401
Kandal	5.9	94.1	0.0	100.0	445	65.4	0.8	1.9	96.2	1.0	100.0	681
Kratie	4.8	92.8	2.4	100.0	66	34.0	9.9	8.9	79.5	1.7	100.0	194
Phnom Penh	5.7	94.3	0.0	100.0	552	90.0	0.5	5.4	92.9	1.2	100.0	614
Prey Veng	10.3	89.7	0.0	100.0	211	34.1	0.8	6.8	92.4	0.0	100.0	618
Pursat	6.2	89.3	4.4	100.0	100	45.6	11.0	16.9	70.2	1.9	100.0	219
Siem Reap	9.3	86.2	4.5	100.0	140	21.2	7.2	12.0	80.1	0.6	100.0	663
Svay Rieng	9.7	87.3	3.0	100.0	55	21.3	1.0	3.0	95.4	0.6	100.0	256
Takeo	9.9	88.9	1.2	100.0	219	44.5	0.8	4.8	93.6	0.9	100.0	491
Otdar Mean Chey	8.7	87.6	3.7	100.0	33	32.5	3.4	18.3	77.2	1.2	100.0	103
Battambang /Krong Pailin	12.5	86.9	0.6	100.0	168	31.6	2.7	8.1	89.0	0.2	100.0	532
Kampot/Krong Kep	10.3	88.7	0.9	100.0	105	26.8	2.8	9.4	84.0	3.8	100.0	390
Krong Preah Sihanouk/ Kaoh Kong	9.4	87.9	2.8	100.0	111	54.6	2.8	12.0	83.5	1.7	100.0	203
Preah Vihear/ Steung Treng	5.8	86.4	7.8	100.0	38	17.5	3.2	7.4	88.4	1.0	100.0	218
Mondol Kiri/Rattanak Kiri	3.6	92.1	4.2	100.0	28	17.6	11.4	15.0	73.3	0.3	100.0	158
Mother's education												
No schooling	6.0	90.4	3.7	100.0	426	22.6	7.0	11.7	80.2	1.1	100.0	1,885
Primary	9.4	89.5	1.0	100.0	1,746	38.0	3.6	10.7	84.8	0.9	100.0	4,595
Secondary and higher	7.4	91.8	0.7	100.0	919	70.2	0.7	7.7	90.9	0.6	100.0	1,308
Wealth quintile												
Lowest	9.9	86.7	3.5	100.0	411	19.5	5.6	12.9	80.6	0.8	100.0	2,111
Second	10.3	86.8	2.9	100.0	510	28.6	5.2	11.2	82.4	1.3	100.0	1,786
Middle	7.4	91.9	0.7	100.0	465	33.7	3.5	10.1	85.4	0.9	100.0	1,381
Fourth	8.3	91.1	0.6	100.0	626	50.0	2.8	8.8	87.6	0.8	100.0	1,253
Highest	7.3	92.3	0.4	100.0	1,078	85.6	1.0	7.3	91.2	0.5	100.0	1,259
Total	8.3	90.3	1.3	100.0	3,090	39.7	4.0	10.5	84.7	0.9	100.0	7,789

[1] Based on either a written record or the mother's recall
[2] Mother's current use

14.2 IMMUNIZATION OF CHILDREN

Universal immunization of children against six vaccine-preventable diseases (namely, tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial to reducing infant and child mortality. Data on differences in vaccination coverage among subgroups of the population are of great assistance for program planning. Additionally, information on immunization coverage is important for the monitoring and evaluation of the Expanded Programs on Immunization (EPI).

The 2005 CDHS collected information on vaccination coverage for all living children born in the five years preceding the survey. Guidelines developed by the World Health Organization define children to be fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses each of the DPT and polio vaccines, and a measles vaccination by the age of 12 months. BCG should be given at birth or at first clinical contact; DPT and polio require three vaccinations at approximately 4, 8, and 12 weeks of age. Measles should be given at or soon after reaching 9 months of age.

Information on vaccination coverage was collected in two ways: from vaccination cards shown to the interviewer and from mothers' verbal reports. If the cards were available, the interviewer copied the vaccination dates directly onto the questionnaire. When there was no vaccination card for the child or if a vaccine had not been recorded on the card as being given, the respondent was asked to recall the vaccines given to her child. The top three rows of Table 14.2 show the percentage of children age 12-23 months who have received the various vaccinations by source of information, that is, from vaccination card or mother's report.

Table 14.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Cambodia 2005

Source of information	BCG	DPT 1	DPT 2	DPT 3	Polio[1] 0	Polio[1] 1	Polio[1] 2	Polio[1] 3	Measles	All basic vaccinations[2]	No vaccinations	Number of children
Vaccinated at any time before the survey												
Vaccination card	65.9	66.3	64.4	61.3	5.0	66.2	64.5	59.8	56.3	52.7	0.2	1,012
Mother's report	25.5	24.3	20.7	17.0	3.2	24.4	21.2	17.1	20.6	13.9	6.8	505
Either source	91.4	90.6	85.1	78.3	8.2	90.6	85.7	76.9	76.9	66.6	7.0	1,517
Vaccinated by 12 months of age[3]	91.0	89.7	83.7	75.5	8.2	89.8	84.4	74.2	70.2	59.9	7.6	1,517

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)
[3] For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

The last row of Table 14.2 shows that 60 percent of children age 12-23 months were fully vaccinated by 12 months of age. Nearly all children had received the BCG vaccination (91 percent) and 70 percent had been vaccinated against measles. Because DPT and polio vaccines are often administered at the same time, their coverage rates are similar. Ninety percent of children received the first doses of DPT and of polio, and three-fourths received the third doses. This is primarily due to the success of the national immunization day campaigns during which polio vaccines are administered.

Table 14.3 shows vaccination coverage among children age 12-23 months by background characteristics. This information may give some indication of the success of the immunization program in reaching out to all population subgroups. There are no significant differences in vaccination coverage between males and females. While there is no significant difference between children in urban and rural areas, there are substantial differences in coverage across provinces. The percentage of children fully vaccinated is lowest in the provinces of Mondol Kiri/Rattanak Kiri

(35 percent), Kampot/Krong Kep (41 percent), and Siem Reap (43 percent). The provinces with the highest proportion of children fully vaccinated are Battambang/Krong Pailin (82 percent), Kampong Speu (81 percent), and Phnom Penh (81 percent).

The percentage of children fully vaccinated increases substantially with mother's educational level. Children of mothers with secondary or higher education are much more likely to be fully vaccinated (83 percent) than children whose mothers have no education (52 percent). The percentage of children fully vaccinated also increases according to the wealth of the household; children living in the wealthiest households are more likely to be fully vaccinated (76 percent) than children from the poorest households (56 percent).

Table 14.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Cambodia 2005

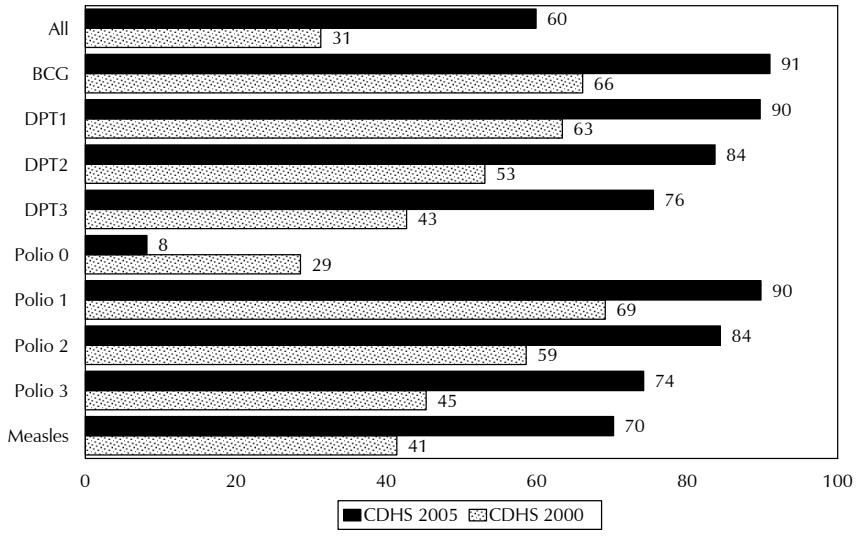
Background characteristic	BCG	DPT			Polio[1]				Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
		1	2	3	0	1	2	3					
Sex													
Male	92.2	91.6	87.2	81.6	8.9	91.9	87.5	79.5	78.1	69.0	6.8	69.0	776
Female	90.5	89.4	82.8	74.8	7.5	89.2	83.8	74.2	75.6	64.1	7.1	64.3	742
Birth order													
1	93.4	92.5	88.7	82.7	6.3	92.6	88.6	80.4	80.4	69.7	5.4	66.3	433
2-3	93.0	92.7	87.4	80.8	9.4	92.4	88.4	79.8	77.3	68.5	4.8	71.0	604
4-5	87.9	85.9	79.9	72.5	8.8	87.1	81.4	72.2	73.1	61.1	10.5	62.3	289
6+	86.9	86.5	77.1	69.1	8.0	85.5	77.1	67.3	73.5	62.0	12.1	60.7	192
Residence													
Urban	91.9	88.8	82.8	76.8	11.8	90.5	83.2	77.7	79.1	69.4	5.3	63.1	215
Rural	91.3	90.8	85.4	78.5	7.6	90.6	86.1	76.8	76.6	66.2	7.2	67.3	1,302
Province													
Banteay Mean Chey	94.2	93.4	90.3	88.1	11.3	93.8	88.0	87.3	78.9	77.7	5.8	58.7	73
Kampong Cham	91.2	91.2	88.3	83.6	4.5	91.2	88.3	80.3	72.3	67.6	8.8	72.0	194
Kampong Chhnang	96.7	94.9	90.4	85.5	12.0	92.5	89.3	75.8	84.5	71.9	3.3	68.7	63
Kampong Speu	99.1	99.1	96.7	93.9	7.0	97.7	95.2	88.6	89.0	81.0	0.9	76.8	82
Kampong Thom	87.7	87.2	76.7	67.1	7.9	88.5	79.3	65.5	67.1	54.6	9.3	63.2	90
Kandal	95.4	95.4	92.3	89.7	7.2	95.4	92.3	89.1	81.1	78.7	4.6	83.0	119
Kratie	87.4	87.6	76.6	66.2	13.6	87.4	75.2	64.1	63.6	53.1	8.1	61.9	31
Phnom Penh	96.5	90.5	88.0	85.7	9.4	90.5	89.3	85.7	85.6	80.9	0.0	79.4	127
Prey Veng	94.8	96.4	92.4	86.4	2.6	93.7	91.1	83.7	83.8	68.5	2.0	77.4	119
Pursat	87.3	85.0	83.0	77.3	1.8	85.9	83.0	78.9	77.3	71.3	11.4	47.0	43
Siem Reap	87.0	86.8	72.5	58.7	12.4	88.5	78.9	59.1	68.6	43.0	10.1	57.5	144
Svay Rieng	89.6	87.3	81.4	77.5	3.2	84.6	81.4	78.5	71.5	66.8	8.4	68.5	40
Takeo	95.3	95.3	92.1	86.8	6.8	94.0	91.8	84.2	86.0	76.8	4.7	65.6	84
Otdar Mean Chey	89.6	91.5	88.7	79.6	1.8	96.7	94.9	86.3	71.0	64.6	3.3	65.4	24
Battambang/ Krong Pailin	95.5	95.5	94.3	88.3	10.5	95.5	94.3	88.3	87.6	82.4	4.5	58.6	101
Kampot/Krong Kep	71.3	69.5	63.3	51.2	14.4	72.3	61.2	51.4	57.8	40.7	25.0	51.0	74
Krong Preah Sihanouk/ Kaoh Kong	90.3	89.5	84.3	70.5	0.0	90.0	90.0	75.1	82.0	65.2	8.4	60.4	42
Preah Vihear/ Steung Treng	89.7	88.0	74.2	56.8	15.0	88.2	71.6	54.7	68.2	46.4	6.9	51.4	39
Mondol Kiri/ Rattanak Kiri	75.9	73.4	53.6	39.6	21.6	75.9	57.1	43.2	55.8	34.6	21.0	43.0	28
Mother's education													
No schooling	85.3	83.4	74.9	66.2	6.9	82.7	76.6	66.3	64.3	51.8	13.0	57.2	349
Primary	92.2	91.1	86.0	78.5	8.6	91.2	85.9	76.7	77.7	67.6	6.4	67.0	911
Secondary and higher	96.7	98.4	95.6	93.6	8.6	99.1	97.3	92.0	91.2	83.3	0.9	78.4	258
Wealth quintile													
Lowest	87.0	86.9	77.3	65.6	6.4	85.7	78.8	65.8	69.9	56.1	10.9	56.6	408
Second	92.3	91.4	85.4	78.8	7.8	92.3	86.9	77.7	76.0	65.8	6.1	69.4	327
Middle	90.6	90.3	87.0	81.0	9.5	90.6	86.4	78.4	77.2	66.6	7.8	66.1	266
Fourth	95.8	94.9	93.3	88.9	7.7	95.4	92.6	84.8	83.5	74.4	3.6	73.2	264
Highest	93.4	91.0	86.5	84.0	10.8	91.2	87.2	84.1	82.4	76.4	4.4	73.4	254
Total	91.4	90.6	85.1	78.3	8.2	90.6	85.7	76.9	76.9	66.6	7.0	66.7	1,517

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Trends in Vaccination Coverage

Trends in vaccination coverage can be seen by comparing similarly collected data in the 2000 CDHS with the data from the 2005 CDHS. The data show that vaccination coverage in Cambodia has significantly improved over the past five years. Figure 14.1 shows the percentage of children age 12-23 months who were fully vaccinated by 12 months of age has doubled from 31 percent in 2000 to 60 percent in 2005.

Figure 14.1 **Trends in Vaccination by 12 Months of Age (among Children 12-23 Months)**



Note: All includes BCG, measles, and three doses each of DPT and polio vaccine (excludes polio 0 vaccine given at birth).

14.3 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is a leading cause of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the 2005 CDHS, the prevalence of ARI was estimated by asking mothers whether their children under age five had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective—they are based on the mother's perception of illness with no validation from medical personnel—and that the prevalence of ARI is subject to seasonality.

Table 14.4 shows the percent of children under five with symptoms of ARI during the two weeks preceding the survey according to selected background characteristics. Nine percent of children under five years of age showed symptoms of ARI at some time in the two weeks preceding the survey. With the exception of those under six months of age, prevalence of ARI decreases with increasing age of the child. Children age 6-11 and 12-23 months experience the symptoms of ARI (11 percent) in higher proportions than other age groups.

The proportion of children with ARI symptoms decreases steadily with increasing wealth quintile of the household, from a high of 12 percent among children living in households of the lowest wealth quintile to a low of 3 percent among children living in households of the highest wealth quintile. There are significant provincial variations in the prevalence of ARI, ranging from a low of 2 percent in Phnom Penh and Kampot/Krong Kep to a high of 26 percent in Otdar Mean Chey experiencing the symptoms of ARI.

Table 14.4 Prevalence and treatment of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage who received specific treatments, according to background characteristics, Cambodia 2005

	Among children under age five:		Among children under age five with symptoms of ARI:	
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom treatment was sought from a health facility or provider[2]	Number of children
Age in months				
<6	8.7	743	40.1	64
6-11	11.0	773	53.5	85
12-23	10.9	1,517	45.5	166
24-35	8.8	1,418	50.9	124
36-47	7.0	1,430	48.6	100
48-59	5.7	1,389	50.5	79
Sex				
Male	9.1	3,603	47.9	328
Female	7.9	3,668	48.6	290
Mother's smoking status				
Smokes cigarettes/tobacco	12.1	826	37.7	100
Does not smoke	8.0	6,445	50.3	518
Cooking fuel				
Electricity	*	8	*	0
LPG, natural gas	2.4	488	*	11
Biogas	*	12	*	1
Kerosene	*	5	*	0
Coal, lignite	*	2	*	0
Charcoal	4.3	557	80.6	24
Firewood, straw[3]	9.3	6,176	47.2	576
Dung	*	18	*	6
Residence				
Urban	5.2	1,038	49.2	54
Rural	9.1	6,233	48.2	564
Province				
Banteay Mean Chey	8.5	316	(61.8)	27
Kampong Cham	14.7	880	(47.7)	130
Kampong Chhnang	14.5	293	64.5	42
Kampong Speu	6.7	433	(17.3)	29
Kampong Thom	17.6	369	39.4	65
Kandal	5.6	635	*	36
Kratie	13.5	178	54.8	24
Phnom Penh	2.1	598	*	12
Prey Veng	9.2	562	(54.4)	52
Pursat	7.9	205	(58.6)	16
Siem Reap	2.6	626	*	17
Svay Rieng	5.0	236	*	12
Takeo	3.3	460	*	15
Otdar Mean Chey	26.4	92	55.7	24
Battambang/Krong Pailin	7.9	492	(55.2)	39
Kampot/Krong Kep	2.2	363	*	8
Krong Preah Sihanouk/ Kaoh Kong	3.5	191	*	7
Preah Vihear/Steung Treng	18.6	194	22.9	36
Mondol Kiri/Rattanak Kiri	18.9	147	23.6	28
Mother's education				
No schooling	9.2	1,730	43.7	160
Primary	9.0	4,288	47.6	385
Secondary and higher	5.9	1,253	61.5	74
Wealth quintile				
Lowest	12.3	1,945	41.0	240
Second	9.7	1,646	42.4	160
Middle	8.3	1,276	60.1	106
Fourth	6.4	1,176	62.4	76
Highest	2.9	1,228	(58.1)	36
Total	8.5	7,271	48.3	618

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) is considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner
[3] Includes grass, shrubs, crop residues

About half (48 percent) of all children under five with cough and rapid breathing were taken to a health facility or provider to seek treatment or advice. Children of mothers with secondary or higher level education are more likely to receive treatment for symptoms of ARI (62 percent) than those of mothers with no schooling (44 percent) or only primary schooling (48 percent).

14.4 FEVER

The 2005 CDHS also asked mothers about fever, which is a primary manifestation of malaria and other acute infections in children. Malaria and fever can contribute to high levels of malnutrition and mortality. Malaria is discussed in greater detail in Chapter 16.

Table 14.5 shows the percent of children under five who had a fever during the two weeks preceding the survey according to selected background characteristics. Overall, 35 percent of children under five years of age had a fever at some time in the two weeks preceding the survey. The prevalence of fever varies by age of child. As with ARI, children age 6-11 months and 12-23 months are more commonly sick with fever (46 and 42 percent, respectively) than other children. There are no significant variations in the prevalence of fever by sex of the child. Similarly, there is little notable difference in the prevalence of fever between children in urban and rural areas.

Provincial variations, however, are significant; prevalence of fever ranges from a low of 12 percent in Krong Preah Sihanouk/Kaoh Kong to a high of 54 percent in Kampong Thom and 53 percent in Preah Vihear/Steung Treng. Mother's education has little impact on the prevalence of fever among children less than five years old.

Slightly less than half (43 percent) of all children under five with fever were taken to a health facility or provider to seek treatment or advice. Children of mothers with secondary or higher level education are more likely to receive treatment for fever (50 percent) than those of mothers with no schooling (39 percent) or only primary schooling (42 percent). The proportion of children for whom treatment was sought from a health facility or provider is highest in Takeo (69 percent) and Svay Rieng (65 percent) and lowest in Kampong Speu (25 percent) and Kampong Thom (28 percent).

Less than 1 percent of children with fever received anti-malarial drugs while 12 percent received antibiotic drugs. Use of antibiotic drugs is more common in rural areas (13 percent) than in urban areas (8 percent) and is twice as common among mothers with at least a secondary education (16 percent) than mothers with no education (9 percent). The highest use of antibiotic drugs to treat fever is in Kandal (28 percent) and Battambang/Krong Pailin (26 percent) provinces.

Table 14.5 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage of children for whom treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who took antibiotic drugs, by background characteristics, Cambodia 2005

	Among children under age five:		Among children under age five with fever:			
Background characteristic	Percentage with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	29.9	743	40.5	0.0	7.8	222
6-11	45.6	773	47.8	0.2	11.5	352
12-23	42.4	1,517	43.2	0.2	14.8	643
24-35	35.9	1,418	43.3	0.3	12.1	510
36-47	31.8	1,430	37.3	0.4	8.8	455
48-59	28.3	1,389	43.8	0.1	13.7	393
Sex						
Male	36.7	3,603	44.0	0.3	11.7	1,323
Female	34.2	3,668	41.2	0.2	12.2	1,253
Residence						
Urban	31.5	1,038	32.6	1.3	8.3	327
Rural	36.1	6,233	44.1	0.1	12.5	2,249
Province						
Banteay Mean Chey	35.5	316	42.0	0.0	21.7	112
Kampong Cham	47.3	880	49.9	0.0	8.3	417
Kampong Chhnang	38.6	293	57.7	0.0	6.4	113
Kampong Speu	37.7	433	24.6	0.0	8.0	163
Kampong Thom	53.9	369	27.5	0.0	19.7	199
Kandal	32.0	635	60.4	0.0	27.9	203
Kratie	42.3	178	39.8	3.3	9.0	75
Phnom Penh	34.0	598	30.6	0.0	2.4	204
Prey Veng	34.8	562	46.6	0.0	11.0	195
Pursat	33.1	205	46.2	0.0	10.0	68
Siem Reap	20.8	626	36.8	0.0	1.5	130
Svay Rieng	22.5	236	65.4	0.0	4.8	53
Takeo	25.8	460	69.3	0.0	8.8	119
Otdar Mean Chey	46.9	92	45.4	0.3	22.1	43
Battambang/Krong Pailin	47.4	492	41.2	0.5	26.4	233
Kampot/Krong Kep	20.0	363	40.1	1.0	1.5	73
Krong Preah Sihanouk/ Kaoh Kong	11.5	191	16.9	2.6	(0.0)	22
Preah Vihear/Steung Treng	53.1	194	20.0	1.3	6.4	103
Mondol Kiri/Rattanak Kiri	34.5	147	23.9	0.0	0.3	51
Mother's education						
No schooling	34.5	1,730	39.1	0.2	8.8	596
Primary	36.6	4,288	42.0	0.2	12.1	1,568
Secondary and higher	32.9	1,253	50.0	0.3	16.1	412
Wealth quintile						
Lowest	39.3	1,945	38.7	0.3	10.2	764
Second	36.1	1,646	42.3	0.1	11.3	595
Middle	37.4	1,276	49.9	0.1	15.2	477
Fourth	30.9	1,176	46.5	0.6	14.6	364
Highest	30.7	1,228	38.2	0.2	10.2	377
Total	35.4	7,271	42.6	0.2	12.0	2,576

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Excludes pharmacy, shop, and traditional practitioner

14.5 DIARRHEA

Dehydration caused by severe diarrhea is a major cause of morbidity and mortality among young children although the condition can be easily treated with oral rehydration therapy (ORT). Exposure to diarrhea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta.

Table 14.6 shows the percentage of children under five with diarrhea in the two weeks preceding the survey, according to selected background characteristics. Overall, 20 percent of all children under five had diarrhea while 3 percent had diarrhea with blood.

The occurrence of diarrhea varies by age of the child. As with ARI and fever, young children age 6-11 and 12-23 months are more prone to diarrhea than children in the other age groups (32 percent and 28 percent, respectively). Diarrhea is slightly more common among rural children (20 percent) than urban children (16 percent). There are also variations in the prevalence of diarrhea by province. Children living in Kampong Cham are more susceptible to episodes of diarrhea (30 percent) than children living in other provinces. Children living in Krong Preah Sihanouk/Kaoh Kong and Svay Rieng have the lowest prevalence of diarrhea (9 and 10 percent, respectively) when compared with children living in other provinces. The prevalence of diarrhea with blood follows a pattern similar to that observed for diarrhea in general.

The 2005 CDHS asked mothers of children under age five who had diarrhea what was done to treat the illness. Table 14.7 shows the percentage of children with diarrhea who received specific treatments according to background characteristics. Thirty-seven percent of children with diarrhea were taken to a health provider. Nearly one in two children (44 percent) of mothers with some secondary or higher education were taken to a health provider, compared with 35 percent of children of mothers with no schooling. Notable differences also exist by place of residence. The proportion of children in rural areas taken to a health facility is 38 percent whereas only 28 percent of children in urban areas were taken to a health provider. There are also variations across provinces; nearly two-thirds of children living in Takeo were taken to a health provider in contrast to less than one in ten children living in Krong Preah Sihanouk/Kaoh Kong.

Table 14.6 Prevalence of diarrhea

Percentage of children under age five who had diarrhea in the two weeks preceding the survey, by background characteristics, Cambodia 2005

Background characteristic	Diarrhea in the two weeks preceding the survey: All diarrhea	Diarrhea with blood	Number of children
Age in months			
<6	17.7	0.9	743
6-11	31.8	1.6	773
12-23	27.9	4.8	1,517
24-35	20.4	3.3	1,418
36-47	13.6	1.8	1,430
48-59	9.8	1.5	1,389
Sex			
Male	21.8	2.6	3,603
Female	17.3	2.5	3,668
Residence			
Urban	16.3	1.8	1,038
Rural	20.1	2.7	6,233
Province			
Banteay Mean Chey	22.3	3.9	316
Kampong Cham	30.0	3.8	880
Kampong Chhnang	16.9	2.5	293
Kampong Speu	16.4	2.2	433
Kampong Thom	25.0	5.2	369
Kandal	17.2	2.3	635
Kratie	22.6	2.5	178
Phnom Penh	18.4	1.4	598
Prey Veng	27.2	3.1	562
Pursat	24.8	2.2	205
Siem Reap	14.3	2.2	626
Svay Rieng	9.8	3.3	236
Takeo	11.2	1.1	460
Otdar Mean Chey	13.8	1.0	92
Battambang/Krong Pailin	18.3	1.9	492
Kampot/Krong Kep	11.0	0.7	363
Krong Preah Sihanouk/ Kaoh Kong	8.8	0.8	191
Preah Vihear/Steung Treng	28.0	3.6	194
Mondol Kiri/Rattanak Kiri	21.1	4.3	147
Mother's education			
No schooling	21.4	3.4	1,730
Primary	19.9	2.5	4,288
Secondary and higher	15.7	1.5	1,253
Wealth quintile			
Lowest	22.4	3.8	1,945
Second	20.8	2.9	1,646
Middle	19.8	1.8	1,276
Fourth	18.3	2.6	1,176
Highest	14.1	0.7	1,228
Source of drinking water during dry season[1]			
Improved	20.2	2.3	3,819
Not improved	18.8	2.9	3,452
Source of drinking water uring rainy season[1]			
Improved	19.6	2.4	5,156
Not improved	19.3	2.9	2,115
Toilet facility[2]			
Improved, not shared	14.4	1.0	1,256
Non-improved	20.6	2.9	6,014
Total	19.5	2.5	7,271

[1] See Table 2.7 for definition of categories.
[2] See Table 2.8 for definition of categories.

Table 14.7 Diarrhea treatment

Among children under age five who had diarrhea in the two weeks preceding the survey, the percentage who were taken for treatment to a health provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by background characteristics, Cambodia 2005

Background characteristic	Percentage of children with diarrhea taken to a health provider[1]	Oral rehydration therapy (ORT)					Other treatments			
		ORS packets or pre-packaged liquid	Recom-mended home fluids (RHF)	Either ORS or RHF	Increased fluids	ORT or increased fluids	Pill, syrup, home remedy, other	Missing	No treatment	Number of children with diarrhea
Age in months										
<6	27.6	11.1	5.6	15.4	14.9	27.4	48.3	0.3	37.1	131
6-11	33.9	23.0	18.9	37.0	34.8	56.4	64.4	0.1	17.6	246
12-23	45.9	26.4	26.8	43.3	47.0	70.6	69.9	0.1	11.9	423
24-35	37.0	23.5	22.9	38.2	41.6	61.2	66.6	1.1	14.7	290
36-47	26.8	12.0	20.8	28.9	38.2	55.6	50.3	2.7	24.5	194
48-59	38.4	18.2	21.3	35.2	34.4	52.3	64.9	0.6	15.9	136
Sex										
Male	38.9	20.7	22.3	35.7	40.0	60.1	64.3	0.3	16.9	787
Female	34.6	21.5	20.0	36.0	36.4	56.3	61.6	1.3	19.1	633
Type of diarrhea										
Non bloody	35.7	20.3	20.7	34.4	36.7	56.4	62.1	0.7	18.9	1,229
Bloody	46.4	26.1	25.2	45.1	49.8	71.3	70.8	0.2	11.0	185
Residence										
Urban	28.1	26.2	18.0	37.9	31.0	51.2	57.1	1.6	25.0	169
Rural	38.2	20.4	21.8	35.6	39.4	59.4	63.9	0.6	16.9	1,251
Province										
Banteay Mean Chey	33.5	21.4	32.2	44.5	71.4	81.2	79.0	1.1	2.5	70
Kampong Cham	39.6	11.6	27.3	35.5	48.2	66.2	73.9	1.0	10.4	264
Kampong Chhnang	44.2	29.6	54.1	64.1	58.5	83.7	55.0	0.0	9.5	49
Kampong Speu	18.9	18.8	12.9	25.0	59.7	67.6	62.8	1.4	15.3	71
Kampong Thom	20.3	15.8	6.1	21.3	57.9	68.9	57.0	0.0	16.6	92
Kandal	56.2	29.6	26.6	43.4	15.0	51.4	71.5	1.6	9.1	109
Kratie	32.6	17.3	15.3	28.3	30.4	46.1	68.5	1.2	18.4	40
Phnom Penh	30.6	18.0	4.6	21.4	10.6	30.4	38.4	1.8	43.3	110
Prey Veng	40.8	23.1	27.5	44.7	38.1	63.4	72.1	0.0	13.8	153
Pursat	45.3	45.9	32.5	60.6	14.9	65.9	58.7	0.0	17.8	51
Siem Reap	29.5	16.6	10.8	21.7	22.6	33.6	33.5	0.0	46.9	89
Svay Rieng	(59.6)	(36.8)	(31.7)	(47.3)	(18.0)	(54.5)	(45.1)	(0.0)	(29.9)	23
Takeo	(64.2)	(24.9)	(6.3)	(31.2)	(42.4)	(53.3)	(77.5)	(0.0)	(13.8)	52
Otdar Mean Chey	50.9	37.4	9.2	39.5	39.4	64.2	75.2	1.9	11.4	13
Battambang/Krong Pailin	41.6	30.8	12.7	36.2	20.2	39.5	86.5	0.0	10.9	90
Kampot/Krong Kep	(31.3)	(21.7)	(44.9)	(52.0)	(43.0)	(73.6)	(50.8)	(0.0)	(13.2)	40
Krong Preah Sihanouk/ Kaoh Kong	(7.6)	(9.3)	(37.8)	(39.5)	(19.8)	(47.2)	(21.0)	(0.0)	(46.3)	17
Preah Vihear/Steung Treng	19.3	13.2	12.6	23.0	65.3	71.3	50.4	0.7	18.6	54
Mondol Kiri/Rattanak Kiri	24.4	22.3	11.0	28.6	36.6	51.8	44.3	2.8	26.2	31
Mother's education										
No schooling	35.3	19.4	17.6	32.1	37.4	58.2	61.4	1.2	21.5	370
Primary	36.0	21.4	22.9	38.0	41.3	60.7	63.1	0.4	16.0	853
Secondary and higher	44.2	23.0	21.2	33.3	27.9	49.2	66.8	1.0	19.3	196
Wealth quintile										
Lowest	33.4	19.8	24.8	38.3	42.7	65.9	58.1	0.9	16.7	436
Second	37.0	20.2	20.8	34.0	47.0	62.5	65.5	0.3	16.4	343
Middle	42.8	25.4	20.8	39.4	38.9	58.8	70.7	0.1	12.0	252
Fourth	35.1	22.2	19.7	35.4	31.4	51.1	62.3	1.3	24.4	215
Highest	39.7	18.3	16.1	28.6	18.6	40.2	61.1	1.1	24.1	173
Total	37.0	21.1	21.3	35.8	38.4	58.4	63.1	0.7	17.9	1,420

Note: ORT includes solution prepared from oral rehydration salts(ORS), prepackaged ORS packet, and recommended home fluids (RHF). Figures in parentheses are based on 25-49 unweighted cases.

[1] Excludes pharmacy, shop, nd traditional practitioner

Comparable data from the 2000 CDHS show a higher percentage of children with diarrhea were taken to a health provider in 2005 than in 2000 (37 percent versus 22 percent).

Fifty-eight percent of children with diarrhea were treated with some kind of oral rehydration therapy (ORT): 21 percent were treated with a solution prepared from an ORS packet, 21 percent were given recommended home fluids, and 38 percent were given increased fluids. However, about one in five children (18 percent) with diarrhea did not receive any treatment at all.

Diarrhea treatment varies by age: 71 percent of children age 12-23 months received ORT compared with 27 percent of children under six months of age. Children who had diarrhea with blood are more likely to receive ORT than others. There are also slight differences between urban and rural areas; 59 percent of children in rural areas received ORT or increased fluids compared with 51 percent of children in urban areas. Children living in Phnom Penh (30 percent) and Siem Reap (34 percent) are least likely to receive ORT or increased fluids.

14.6 Feeding Practices

Mothers are normally encouraged to continue feeding children with diarrhea and to increase the amount of fluids. These practices help to reduce dehydration and minimize the adverse consequences of diarrhea on the child's nutritional status. Mothers were asked whether they gave the child less, the same amount, or more fluids and food than usual when their child had diarrhea. Table 14.8 shows the percent distribution of children under five who had diarrhea in the two weeks preceding the survey by feeding practices, according to background characteristics.

Thirty-nine percent of children who had diarrhea were given the same amount of liquid as usual and 38 percent were given more. Thirteen percent of children were given somewhat less than the usual amount, and 4 percent were given much less than the usual amount. Four percent of children who had diarrhea were given no liquids.

Regarding the amount of food offered to children who had diarrhea, 45 percent were given the same as usual, 12 percent were given more than usual, 27 percent were given somewhat less than the usual amount of food, 5 percent were given much less than the usual amount of food, and 9 percent did not receive food during their illness.

Children under age 6 months and children residing in Svay Rieng, Mondol Kiri/Rattanak Kiri, and Otdar Mean Chey are the least likely to receive at least the same amount of liquid or more during episodes of diarrhea than other children. Regarding the amount of food offered during diarrhea, children under age 6 months, children with bloody diarrhea, and children residing in Banteay Mean Chey, Kampong Thom, and Kampot/Krong Kep are the least likely to receive at least the same amount of food or more.

Table 14.8 Feeding practices during diarrhea

Percent distribution of children under age five who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, by background characteristics, Cambodia 2005

Background characteristic	Amount of liquids given							Amount of food given							Number of children with diarrhea
	More	Same as usual	Some-what less	Much less	None	Don't know	Total	More	Same as usual	Some-what less	Much less	None	Don't know	Total	
Age in months															
<6	14.9	39.4	10.6	1.0	32.0	2.2	100.0	7.4	37.3	5.3	0.4	48.4	1.1	100.0	131
6-11	34.8	41.7	13.4	4.8	3.9	1.3	100.0	14.7	40.4	20.0	4.8	18.3	1.8	100.0	246
12-23	47.0	33.0	13.0	5.5	0.3	1.1	100.0	13.2	39.7	33.9	7.6	4.6	1.0	100.0	423
24-35	41.6	41.0	10.2	5.7	0.3	1.2	100.0	13.8	46.9	31.2	5.8	1.3	1.0	100.0	290
36-47	38.2	45.6	14.0	1.2	0.1	1.0	100.0	7.8	56.0	32.2	2.5	0.5	1.0	100.0	194
48-59	34.4	41.7	17.1	2.6	0.0	4.2	100.0	6.5	61.2	25.8	6.3	0.0	0.2	100.0	136
Sex															
Male	40.0	39.3	11.7	4.2	3.1	1.7	100.0	13.9	45.6	25.6	5.2	8.3	1.5	100.0	787
Female	36.4	39.2	14.2	4.1	4.6	1.4	100.0	8.9	45.1	29.5	5.3	10.7	0.5	100.0	633
Type of diarrhea															
Non bloody	36.7	42.2	11.9	4.0	4.1	1.2	100.0	11.5	47.2	25.7	5.3	9.6	0.8	100.0	1,229
Bloody	49.8	21.5	19.1	5.5	1.7	2.4	100.0	13.0	34.3	37.2	5.4	7.9	2.1	100.0	185
Residence															
Urban	31.0	48.3	11.3	5.0	1.9	2.5	100.0	10.4	53.8	23.6	5.0	6.2	1.0	100.0	169
Rural	39.4	38.1	13.0	4.0	4.1	1.4	100.0	11.9	44.2	27.8	5.3	9.8	1.1	100.0	1,251
Province															
Banteay Mean Chey	71.4	7.6	15.0	2.6	1.9	1.5	100.0	20.2	15.4	37.9	6.7	19.8	0.0	100.0	70
Kampong Cham	48.2	30.9	15.6	2.3	1.0	2.0	100.0	15.5	43.0	26.0	3.0	9.5	3.1	100.0	264
Kampong Chhnang	58.5	31.6	3.3	3.7	1.4	1.6	100.0	29.3	43.8	19.7	0.8	6.4	0.0	100.0	49
Kampong Speu	59.7	21.2	10.8	1.6	5.9	0.8	100.0	21.1	20.2	46.2	4.9	7.6	0.0	100.0	71
Kampong Thom	57.9	17.2	16.5	2.2	5.3	0.9	100.0	7.1	32.3	45.8	4.3	10.5	0.0	100.0	92
Kandal	15.0	70.7	7.8	1.6	4.9	0.0	100.0	7.5	66.2	19.8	1.6	4.9	0.0	100.0	109
Kratie	30.4	39.7	15.0	5.1	9.8	0.0	100.0	6.0	44.3	30.9	7.2	11.6	0.0	100.0	40
Phnom Penh	10.6	71.5	9.5	7.0	0.0	1.4	100.0	0.0	70.6	20.8	7.2	0.0	1.4	100.0	110
Prey Veng	38.1	33.4	14.3	4.6	3.6	6.0	100.0	14.9	44.5	22.4	8.6	7.2	2.3	100.0	153
Pursat	14.9	53.0	13.3	13.9	4.9	0.0	100.0	7.1	46.1	28.8	14.3	3.7	0.0	100.0	51
Siem Reap	22.6	56.6	6.9	5.3	6.9	1.7	100.0	9.2	55.0	13.1	3.2	17.9	1.7	100.0	89
Svay Rieng	(18.0)	(34.0)	(21.5)	(26.5)	(0.0)	(0.0)	100.0	(29.3)	(22.9)	(33.6)	(14.2)	(0.0)	(0.0)	100.0	23
Takeo	(42.4)	(35.8)	(11.8)	(1.3)	(8.7)	(0.0)	100.0	(4.5)	(45.5)	(26.8)	(2.6)	(20.5)	(0.0)	100.0	52
Otdar Mean Chey	39.4	23.2	30.8	2.0	4.7	0.0	100.0	16.0	43.8	20.1	2.0	18.1	0.0	100.0	13
Battambang/Krong Pailin	20.2	64.4	12.1	0.0	3.3	0.0	100.0	6.3	61.3	14.3	5.2	12.9	0.0	100.0	90
Kampot/Krong Kep	(43.0)	(25.8)	(20.2)	(8.5)	(2.5)	(0.0)	100.0	(5.8)	(23.5)	(63.2)	(1.6)	(5.9)	(0.0)	100.0	40
Krong Preah Sihanouk/ Kaoh Kong	(19.8)	(52.2)	(3.2)	(18.4)	(0.0)	(6.4)	100.0	(17.5)	(47.4)	(28.2)	(3.8)	(3.2)	(0.0)	100.0	17
Preah Vihear/ Steung Treng	65.3	17.1	11.7	0.5	4.8	0.5	100.0	7.4	36.1	30.6	9.9	15.3	0.5	100.0	54
Mondol Kiri/ Rattanak Kiri	36.6	25.5	15.6	5.9	16.3	0.0	100.0	10.6	60.0	20.0	6.9	2.6	0.0	100.0	31
Mother's education															
No schooling	37.4	39.8	11.5	4.2	5.2	1.9	100.0	10.5	49.7	22.5	3.6	12.3	1.4	100.0	370
Primary	41.3	36.5	13.5	3.7	3.7	1.4	100.0	11.8	42.8	29.9	5.6	8.9	1.0	100.0	853
Secondary and higher	27.9	50.4	12.4	6.2	1.6	1.5	100.0	13.2	48.1	25.2	6.8	5.8	0.8	100.0	196
Wealth quintile															
Lowest	42.7	30.9	14.8	4.1	5.6	1.9	100.0	11.3	40.0	31.4	4.4	12.0	1.0	100.0	436
Second	47.0	33.4	10.2	3.5	4.6	1.4	100.0	9.7	43.6	28.8	6.1	11.8	0.1	100.0	343
Middle	38.9	35.9	16.5	3.5	3.6	1.6	100.0	17.0	38.6	28.6	5.1	8.1	2.5	100.0	252
Fourth	31.4	48.5	10.8	6.2	2.0	1.1	100.0	11.5	54.0	18.7	7.0	7.7	1.1	100.0	215
Highest	18.6	65.4	10.2	4.1	0.2	1.5	100.0	9.1	61.4	23.1	3.7	1.8	0.9	100.0	173
Total	38.4	39.3	12.8	4.2	3.8	1.5	100.0	11.7	45.4	27.3	5.2	9.3	1.1	100.0	1,420

Note: Figures in parentheses are based on 25-49 unweighted cases.

14.7 KNOWLEDGE OF ORS PACKETS

A simple and effective response to dehydration caused by diarrhea is a prompt increase in the child's fluid intake through some form of oral rehydration therapy, which may include the use of a solution prepared from packets of oral rehydration salts (ORS). To ascertain how widespread knowledge of ORS is in Cambodia, respondents were asked whether they know about ORS packets. Interviewers displayed a sample ORS packet to respondents when asking the question.

Table 14.9 shows that almost all (91 percent) of women who gave birth in the five years preceding the survey know about ORS packets. This represents a large increase over the past 5 years; in the 2000 CDHS, 50 percent of women reported knowing about ORS packets.

Mothers with no education are less likely to know about ORS packets (85 percent) than with primary schooling (92 percent) or secondary or higher schooling (98 percent). Knowledge of ORS also varies by province, as only half of mothers in Mondol Kiri/ Rattanak Kiri know about ORS packets.

Table 14.9 Knowledge of ORS packets or pre-packaged liquids

Percentage of mothers who gave birth in the five years preceding the survey who know about ORS packets or pre-packaged liquids for treatment of diarrhea. by background characteristics, Cambodia 2005

Background characteristic	Percentage of women who know about ORS packets or ORS prepackaged liquids	Number of women
Age		
15-19	88.7	186
20-24	91.1	1,422
25-34	92.5	2,589
35-49	89.8	1,668
Residence		
Urban	93.3	827
Rural	90.9	5,039
Province		
Banteay Mean Chey	93.4	256
Kampong Cham	87.3	738
Kampong Chhnang	94.8	218
Kampong Speu	87.5	335
Kampong Thom	85.4	300
Kandal	96.2	531
Kratie	85.1	137
Phnom Penh	98.4	476
Prey Veng	95.3	485
Pursat	96.7	167
Siem Reap	93.9	472
Svay Rieng	98.4	202
Takeo	96.2	372
Otdar Mean Chey	97.1	76
Battambang/Krong Pailin	97.5	404
Kampot/Krong Kep	84.0	290
Krong Preah Sihanouk/ Kaoh Kong	78.9	146
Preah Vihear/Steung Treng	77.6	153
Mondol Kiri/Rattanak Kiri	45.9	107
Education		
No schooling	84.5	1,356
Primary	92.0	3,482
Secondary and higher	97.7	1,028
Wealth quintile		
Lowest	85.8	1,477
Second	88.4	1,320
Middle	93.6	1,077
Fourth	94.6	1,003
Highest	97.4	988
Total	91.3	5,865

ORS = Oral rehydration salts

14.8 STOOL DISPOSAL

If human feces are left uncontained, disease may spread by direct contact or by animal contact with the feces. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease. Table 14.10 presents information on the disposal of the stools of children under age five, by background characteristics.

Forty percent of children's stools are left uncontained: 5 percent are put or rinsed into a drain or ditch, 8 percent are thrown into the garbage, and 27 percent are left in the open. Fifty-eight percent of children's stools are disposed of hygienically: 42 percent are buried in the yard and 10 percent are disposed of in a toilet or latrine. Additionally, 6 percent of children under five use a toilet or latrine.

There are pronounced differences in practices of stool disposal by mother's level of education and type of toilet facilities available. For more than three-fourths of the children (77 percent) of mothers with secondary and higher education, stools are disposed of hygienically (child uses toilet, child's stool thrown in toilet, or buried in yard), compared with 46 percent of children of mothers with no education. Similarly, 86 percent of children in households with improved toilets that are not shared with other households have their stools contained, compared with 52 percent of children in the households using non-improved or shared toilet facilities.

Children's stools are more likely to be contained in urban areas (73 percent) than in rural areas (56 percent). Of course, toilet facilities are more available in urban areas. There are also large provincial variations in practices of stool disposal. For example, the percentage of children whose stools are contained in disposal ranges from a low of 13 percent in Mondol Kiri/Rattanak Kiri to a high of 88 percent in Otdar Mean Chey.

Table 14.10 Disposal of children's stools

Percent distribution of mothers whose youngest child under age five is living with her by the manner of disposing of the child's fecal matter, according to background characteristics, Cambodia 2005

	Manner of disposal of children's stools:									
Background characteristic	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Don't know	Total	Number of mothers
Age in months										
<6	1.7	11.4	22.5	21.1	13.1	24.7	5.1	0.3	100.0	739
6-11	0.9	15.2	37.2	5.8	10.4	28.3	2.1	0.1	100.0	764
12-23	2.9	11.9	48.0	1.7	8.5	25.8	1.2	0.0	100.0	1,456
24-35	7.3	9.7	45.2	1.2	7.3	27.9	1.2	0.3	100.0	1,118
36-47	11.4	6.1	45.9	0.9	6.3	28.2	1.0	0.1	100.0	873
48-59	16.1	5.1	41.8	1.2	5.5	27.8	2.0	0.6	100.0	689
Residence										
Urban	18.5	32.5	21.7	5.1	8.1	11.1	2.8	0.3	100.0	785
Rural	4.3	6.5	44.7	4.4	8.5	29.6	1.7	0.2	100.0	4,854
Province										
Banteay Mean Chey	6.4	7.6	57.4	5.4	5.0	9.5	6.9	1.6	100.0	244
Kampong Cham	0.4	5.9	58.7	3.6	4.1	26.6	0.7	0.0	100.0	717
Kampong Chhnang	2.6	4.8	58.2	10.4	0.8	22.1	1.1	0.0	100.0	209
Kampong Speu	2.1	1.9	45.4	0.6	23.3	19.4	6.3	1.0	100.0	321
Kampong Thom	3.1	4.9	50.6	7.6	8.2	23.1	2.2	0.3	100.0	288
Kandal	13.3	9.6	53.9	3.5	3.4	15.7	0.5	0.2	100.0	518
Kratie	6.1	5.2	32.6	4.6	10.4	24.3	16.9	0.0	100.0	129
Phnom Penh	24.5	53.2	8.1	2.4	7.6	3.8	0.4	0.0	100.0	454
Prey Veng	3.8	3.5	25.1	0.4	11.5	53.0	2.8	0.0	100.0	459
Pursat	2.5	3.9	66.5	2.5	14.0	7.6	2.9	0.0	100.0	162
Siem Reap	4.6	8.1	31.6	1.2	5.1	49.1	0.0	0.3	100.0	460
Svay Rieng	3.7	4.1	35.3	1.3	2.0	53.5	0.0	0.0	100.0	192
Takeo	2.5	3.8	42.1	5.2	19.1	27.2	0.0	0.0	100.0	356
Otdar Mean Chey	1.2	3.8	82.5	9.4	0.2	2.8	0.1	0.0	100.0	72
Battambang/Krong Pailin	9.3	16.0	54.0	10.9	3.9	5.6	0.4	0.0	100.0	388
Kampot/Krong Kep	0.7	2.4	28.3	3.1	17.9	47.2	0.5	0.0	100.0	280
Krong Preah Sihanouk/ Kaoh Kong	16.9	13.5	21.4	17.3	11.0	17.9	1.1	0.7	100.0	140
Preah Vihear/Steung Treng	2.3	3.1	27.7	10.2	8.2	43.7	4.8	0.0	100.0	148
Mondol Kiri/Rattanak Kiri	2.3	5.0	5.2	5.3	4.3	77.7	0.2	0.0	100.0	103
Education										
No schooling	1.8	3.9	40.3	4.7	8.1	38.3	2.6	0.3	100.0	1,294
Primary	5.0	7.4	44.4	4.7	9.2	27.2	1.9	0.2	100.0	3,347
Secondary and higher	16.3	27.3	33.6	3.5	6.2	11.9	1.1	0.1	100.0	999
Toilet facility										
Improved, not shared[1]	26.6	42.5	17.0	1.9	5.0	5.6	1.2	0.2	100.0	995
Non-improved or shared	1.9	3.2	46.8	5.1	9.2	31.6	2.0	0.2	100.0	4,643
Wealth quintile										
Lowest	0.2	0.1	42.1	4.5	9.2	41.7	2.0	0.3	100.0	1,427
Second	0.2	0.6	50.4	4.3	10.0	32.4	1.8	0.2	100.0	1,254
Middle	1.0	1.2	52.1	5.4	9.2	29.0	1.8	0.2	100.0	1,035
Fourth	8.6	12.0	44.5	5.4	8.2	19.2	2.2	0.0	100.0	966
Highest	26.6	45.4	14.7	2.9	4.6	4.1	1.6	0.2	100.0	957
Total	6.3	10.1	41.5	4.5	8.4	27.0	1.9	0.2	100.0	5,639

[1] Non-shared facilities that are of the types flush or pour flush into a piped sewer system/septic tank/pit latrine; ventilated, improved pit (VIP) latrine; pit latrine with a slab; and a composting toilet.

NUTRITION OF CHILDREN AND WOMEN 15

This chapter covers nutritional concerns for children and women. The section on children covers the following related topics: anthropometric assessment of the nutritional status of children under five years of age; infant and young child feeding practices, including breastfeeding and feeding with solid/semisolid foods; diversity of foods fed; frequency of feeding; and micronutrient status, supplementation, and fortification. The section on women covers: nutritional status of women 15 to 49 years of age; the diversity of foods eaten by mothers of children under three years; and micronutrient status, supplementation and fortification.

Adequate nutrition is critical to child development. The period from birth to two years of age is important to optimal growth, health, and development. This period is one marked for growth faltering, micronutrient deficiencies, and common childhood illnesses, such as diarrhea and acute respiratory infections (ARI). Optimal feeding practices reported in this chapter include early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding for up to two years of age and beyond, timely introduction of complementary feeding at six months of age, frequency of feeding solid/semisolid foods, and the diversity of food groups fed to children between 6 and 23 months of age. A summary indicator that describes the quality of infant and young child (age 6-23 months) feeding practices (IYCF) is included.

A woman's nutritional status has important implications for her health as well as the health of her children. Malnutrition in women results in reduced productivity, an increased susceptibility to infections, retarded recovery from illness, and heightened risks of adverse pregnancy outcomes. A woman, who has poor nutritional status as indicated by a low body mass index (BMI), short stature, anemia, or other micronutrient deficiency, has a greater risk of obstructed labor, of having a baby with a low birth weight, of producing lower quality breast milk, of mortality due to postpartum hemorrhage, and of morbidity of both herself and her baby.

15.1 NUTRITIONAL STATUS OF CHILDREN

The 2005 CDHS collected data on the nutritional status of children under five years of age from a 50 percent subsample of households selected for the CDHS. Data were collected with the aim of calculating three indices—namely, weight-for-age, height-for-age, and weight-for-height—all of which take age and sex into consideration. Weight measurements were taken using a lightweight electronic SECA scale designed and manufactured under the guidance of UNICEF. The scale allowed for the weighing of very young children through an automatic mother-child adjustment that eliminated the mother's weight while she was standing on the scale with her baby. Height measurements were carried out using a measuring board produced by Shorr Productions. Children younger than 24 months were measured lying down (recumbent length) on the board, while standing height was measured for older children.

As recommended by WHO, the anthropometric measurements of children in the survey were compared with an international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by the U.S. Centers for Disease Control and Prevention (CDC). Each of the three nutritional status indicators described below is expressed in standard deviation units from the mean of the reference population.[1] The use of this reference population is based on the finding that well-nourished young children in all population groups (for which data exist) follow very similar growth patterns and thus exhibit similar distributions of height and weight at given ages (Martorell

[1] The distribution of the standard reference population has been normalized and hence the mean and median coincide.

and Habicht, 1986). The reference populations are useful for comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population and changes in nutritional status over time. In any large population, there is variation in height and weight; this variation approximates a normal distribution.

Each of these indices—height-for-age, weight-for-height, and weight-for-age—provides different information about growth and body composition, which is used to assess nutritional status. The height-for-age index is an indicator of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the mean of the reference population are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) from the mean of the reference population are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is also affected by recurrent and chronic illness. Height-for-age, therefore, represents the long-term effects of malnutrition in a population and does not vary according to recent dietary intake.

The weight-for-height index measures body mass in relation to body length and describes current nutritional status. Children whose Z-scores are below minus two standard deviations (-2 SD) from the mean of the reference population are considered thin (wasted) for their height and are acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children whose weight-for-height is below minus three standard deviations (-3 SD) from the mean of the reference population are considered severely wasted.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic malnutrition. Children whose weight-for-age is below minus two standard deviations from the mean of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the mean of the reference population are considered severely underweight.

Thirty-seven percent of children under five are stunted and 13 percent are severely stunted. Seven percent of children under five are wasted, and 36 percent are underweight.

Table 15.1 and Figure 15.1 indicate that stunting is apparent even among children less than 6 months of age (6 percent). Stunting increases with the age of the child; this is evidenced by the increase in stunting from 9 percent among children age 6-8 months to 49 percent among children age 18-23 months. There is very little difference in the level of stunting by gender. Stunting is highest if the birth interval is less than 24 months (47 percent). Size at birth is an important indicator of the nutritional status of children. Half of the children who were reported to have been very small at birth were stunted. Children whose biological mothers were not in the household are more likely to be stunted (43 percent) than children whose mothers were interviewed (37 percent). A larger percentage (41 percent) of children whose mothers were underweight were stunted than children of normal weight mothers (36 percent). More rural children are stunted (38 percent) than urban children (31 percent). Regional variation in nutritional status of children is substantial with stunting being highest in Pursat province (62 percent) and lowest in Phnom Penh province (22 percent). With increasing wealth quintile and increasing level of mother's education the proportion of children stunted goes down.

Table 15.1 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Cambodia 2005

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score	
Age in months										
<6	0.2	5.6	-0.3	0.6	3.6	-0.1	1.2	4.7	-0.2	286
6-8	0.9	9.3	-0.7	0.9	4.9	-0.3	1.7	9.6	-0.8	189
9-11	5.1	20.4	-1.2	2.1	8.9	-0.7	11.0	34.7	-1.5	173
12-17	11.3	34.4	-1.7	0.9	11.6	-0.8	5.7	36.4	-1.7	373
18-23	15.3	49.3	-1.9	1.1	12.2	-1.1	6.6	45.3	-1.8	403
24-35	13.3	39.1	-1.6	0.5	6.9	-0.9	7.9	40.2	-1.7	706
36-47	17.3	43.6	-1.9	0.5	6.5	-0.8	9.6	41.5	-1.8	748
48-59	17.7	47.7	-2.0	0.7	5.1	-0.8	6.6	38.4	-1.8	710
Sex										
Male	13.6	38.8	-1.7	0.6	7.1	-0.8	6.6	35.3	-1.6	1,739
Female	12.2	35.8	-1.6	0.9	7.4	-0.8	7.3	35.8	-1.6	1,849
Birth interval in months[2]										
First birth[3]	10.6	29.7	-1.4	0.7	7.8	-0.7	5.6	30.8	-1.4	906
<24	19.1	46.5	-1.9	0.8	7.1	-0.8	9.5	44.5	-1.8	433
24-47	14.6	40.7	-1.7	0.9	6.2	-0.8	7.0	38.5	-1.7	1,191
48+	9.3	33.9	-1.5	0.5	8.8	-0.8	5.5	32.0	-1.6	802
Size at birth[2]										
Very small	17.8	49.8	-2.0	1.6	13.1	-1.1	15.4	53.8	-2.1	108
Small	15.8	47.9	-1.9	1.2	10.7	-1.0	14.1	49.4	-1.9	344
Average or larger	12.3	34.9	-1.6	0.6	6.9	-0.7	5.3	33.1	-1.5	2,853
Mother's status										
Interviewed	12.9	36.8	-1.6	0.7	7.4	-0.8	6.6	35.6	-1.6	3,332
Not interviewed but in household	9.5	43.4	-1.8	1.1	8.6	-1.0	8.2	43.7	-1.9	63
Not interviewed, and not in the household[4]	15.0	42.7	-1.7	1.2	4.7	-0.7	12.7	31.8	-1.5	192
Mother's nutritional status[5]										
Thin (BMI<18.5)	16.4	40.7	-1.8	1.3	11.8	-1.1	11.8	48.2	-1.9	645
Normal (BMI 18.5-24.9)	12.1	36.4	-1.6	0.6	6.6	-0.7	5.6	33.3	-1.5	2,445
Overweight/obese (BMI ≥25)	9.4	33.9	-1.4	0.3	3.8	-0.6	2.8	28.5	-1.4	267
Residence										
Urban	9.5	30.5	-1.4	0.9	8.3	-0.8	6.2	34.7	-1.4	486
Rural	13.4	38.3	-1.7	0.7	7.1	-0.8	7.0	35.7	-1.6	3,101
Province										
Banteay Mean Chey	9.3	34.1	-1.5	0.0	5.5	-0.6	4.6	27.6	-1.4	145
Kampong Cham	17.2	37.2	-1.7	0.0	6.0	-0.7	8.0	33.1	-1.6	400
Kampong Chhnang	11.5	37.3	-1.6	0.5	4.6	-0.7	3.4	34.0	-1.5	146
Kampong Speu	6.5	36.6	-1.5	0.2	7.6	-0.8	5.1	30.7	-1.6	218
Kampong Thom	11.9	41.1	-1.8	0.0	3.4	-0.9	9.1	37.4	-1.7	197
Kandal	9.7	26.8	-1.3	1.4	11.5	-0.9	4.1	35.0	-1.5	328
Kratie	14.4	37.1	-1.7	0.4	4.2	-0.7	7.4	35.5	-1.6	100
Phnom Penh	4.2	22.3	-1.0	0.5	5.5	-0.6	3.2	21.2	-1.1	282
Prey Veng	14.8	38.3	-1.7	2.7	11.3	-1.0	13.5	41.3	-1.8	262
Pursat	33.2	61.6	-2.3	4.7	17.0	-0.6	12.0	48.6	-1.9	90
Siem Reap	19.3	53.3	-2.1	0.4	6.3	-0.8	9.6	47.5	-1.8	311
Svay Rieng	13.3	35.4	-1.6	1.4	7.8	-0.8	7.0	37.6	-1.6	120
Takeo	14.5	38.5	-1.6	2.0	7.6	-0.8	6.5	37.8	-1.6	241
Otdar Mean Chey	15.3	47.3	-1.9	0.0	10.3	-0.8	8.0	39.2	-1.7	41
Battambang/Krong Pailin	7.5	36.2	-1.5	0.0	5.6	-0.7	2.4	29.8	-1.4	271
Kampot/Krong Kep	7.9	28.2	-1.4	0.0	5.0	-0.8	2.6	31.0	-1.5	184
Krong Preah Sihanouk/ Kaoh Kong	16.6	36.8	-1.6	0.3	7.3	-0.8	8.7	37.3	-1.6	91
Preah Vihear/Steung Treng	12.1	42.0	-1.8	0.4	9.7	-1.0	9.5	48.1	-1.9	90
Mondol Kiri/Rattanak Kiri	30.4	54.0	-2.3	0.0	7.6	-0.8	22.1	52.2	-2.1	69

Continued...

Table 15.1—*Continued*

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Cambodia 2005

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score	
Mother's education[6]										
No schooling	18.5	45.8	-1.9	1.2	7.9	-0.8	9.3	43.5	-1.8	809
Primary	12.8	37.8	-1.6	0.7	6.9	-0.8	6.6	35.9	-1.6	1,992
Secondary and higher	5.0	22.2	-1.1	0.3	8.6	-0.8	3.0	25.1	-1.3	594
Wealth quintile										
Lowest	19.4	46.7	-1.9	0.9	8.3	-0.8	10.4	42.9	-1.8	884
Second	15.0	42.5	-1.8	0.8	9.2	-0.8	9.0	39.8	-1.7	785
Middle	11.6	36.5	-1.6	0.3	5.5	-0.8	5.0	33.5	-1.6	681
Fourth	9.7	35.5	-1.5	1.1	6.0	-0.8	5.5	34.3	-1.6	633
Highest	5.6	19.4	-1.1	0.7	6.7	-0.6	2.8	23.1	-1.2	605
Total	12.9	37.3	-1.6	0.8	7.3	-0.8	6.9	35.6	-1.6	3,587

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes 27 cases for which size at birth is missing and 34 cases for which mother's nutritional status is missing.

[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median

[2] Excludes children whose mothers were not interviewed

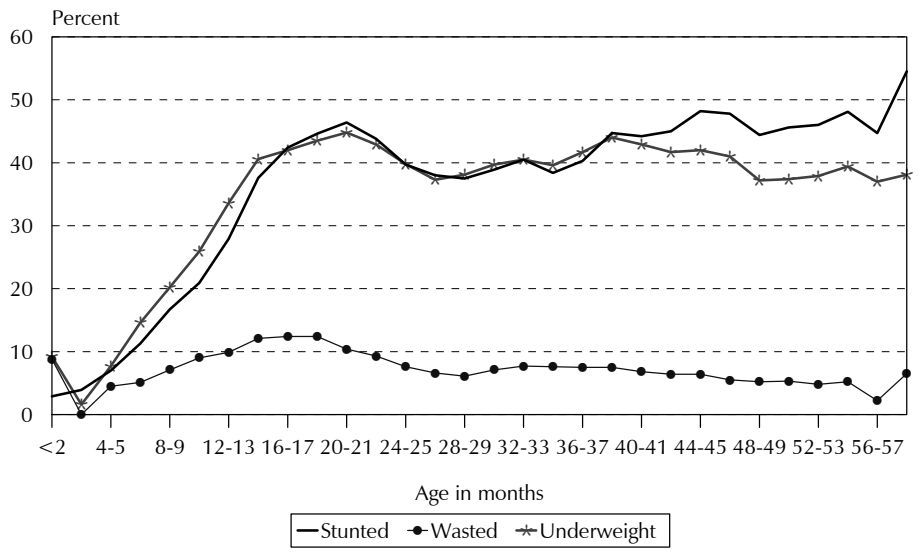
[3] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

[4] Includes children whose mothers are deceased

[5] Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 15.10.

[6] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

Figure 15.1 Nutritional Status of Children by Age



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both.

CDHS 2005

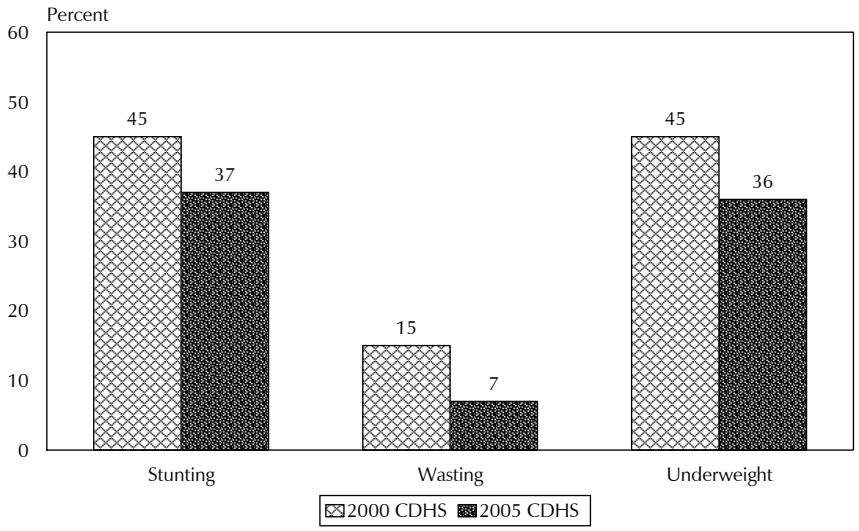
The prevalence of wasting is higher than the national average among children age 9-23 months. The proportion of wasting in children of underweight (BMI<18.5) mothers is almost twice that of children whose mothers have normal BMI. Wasting is highest in Pursat (17 percent) 10 percentage points higher than the national average. Wasting declines steadily with increasing education of the mother and wealth quintile.

Figure 15.1 shows that the percentage of children underweight increases sharply from 5 percent among children under age 6 months doubles to 10 percent among children age 6-8 months, increases seven times among children age 9-11 months then peaks at 45 percent among children age 18-23 months with small decreases thereafter. This may be due to inappropriate and/or inadequate feeding practices because increasing levels of children underweight by age coincides with the age at which normal complementary feeding starts. Half of the provinces listed in Table 15.1 have percentages of underweight children above the national average (36 percent).

Trends in Children's Nutritional Status

Data from the 2005 CDHS can be compared with similarly collected data from the 2000 CDHS (Figure 15.2). A comparison of the data shows that there have been some improvements in the nutritional status of children in the past five years. The percentage of children stunted fell by 8 percentage points from 45 percent in 2000 to 37 percent in 2005. Similarly, the percentage of children wasted declined by 8 percentage points from 15 percent in 2000 to 7 percent in 2005 and underweight declined by 9 percentage points from 45 percent in 2000 to 36 percent in 2005.

Figure 15.2 **Trends in Nutritional Status of Children under Five Years**



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both.

15.2 INITIATION OF BREASTFEEDING

Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early suckling because it stimulates breast milk production and facilitates the release of oxytocin, which helps the contraction of the uterus and reduces postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also fosters bonding between mother and child.

Table 15.2 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and for the last-born children born in the five years preceding the survey ever breastfed, the percentage who started breastfeeding within one hour and within one day of birth and the percentage who received a prelacteal feed, by background characteristics, Cambodia 2005

	Among children under five:		Among last-born children ever breastfed			
Background characteristic	Percentage ever breastfed	Number of children	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Percentage who received a prelacteal feed[2]	Number of children
Sex						
Male	96.6	3,901	33.4	66.2	56.3	2,868
Female	97.1	3,887	36.8	70.5	55.0	2,844
Residence						
Urban	93.5	1,093	37.9	66.9	56.9	772
Rural	97.4	6,696	34.7	68.5	55.5	4,939
Province						
Banteay Mean Chey	97.6	334	21.7	47.7	62.2	250
Kampong Cham	97.0	929	13.0	55.2	67.4	722
Kampong Chhnang	96.9	317	13.4	76.2	46.8	213
Kampong Speu	96.4	468	28.5	77.5	65.0	324
Kampong Thom	98.1	401	27.6	54.0	57.6	297
Kandal	97.7	681	62.9	90.0	60.1	524
Kratie	97.4	194	33.5	62.7	41.2	134
Phnom Penh	91.6	614	37.7	74.9	59.8	436
Prey Veng	97.0	618	15.9	63.7	52.6	477
Pursat	98.1	219	72.0	96.6	18.0	166
Siem Reap	96.5	663	34.1	64.9	35.5	455
Svay Rieng	98.4	256	41.8	86.4	34.6	198
Takeo	97.9	491	66.8	79.3	55.9	366
Otdar Mean Chey	97.3	103	17.8	46.3	55.7	75
Battambang/Krong Pailin	97.5	532	45.1	73.3	60.3	393
Kampot/Krong Kep	96.7	390	31.0	61.8	63.6	284
Krong Preah Sihanouk/ Kaoh Kong	95.4	203	36.9	45.1	75.3	141
Preah Vihear/Steung Treng	98.3	218	57.8	71.8	55.8	152
Mondol Kiri/Rattanak Kiri	97.9	158	18.1	34.2	57.6	104
Mother's education						
No schooling	97.0	1,885	31.6	58.7	58.8	1,324
Primary	97.4	4,595	33.5	68.7	56.3	3,410
Secondary and higher	94.3	1,308	45.6	80.2	49.3	977
Assistance at delivery						
Health professional[3]	95.8	3,410	43.1	77.6	51.9	2,619
Traditional birth attendant	97.7	4,311	28.3	60.5	59.1	3,046
Other	91.7	42	39.1	60.7	50.5	31
No one	(87.0)	21	(12.4)	(50.3)	(30.1)	16
Place of delivery						
Health facility	93.8	1,676	45.5	78.5	49.6	1,281
At home	97.7	6,097	32.1	65.4	57.4	4,426
Other	(58.7)	11	(25.2)	(34.2)	(87.3)	4
Wealth quintile						
Lowest	98.2	2,111	28.6	60.4	54.3	1,464
Second	97.6	1,786	29.7	63.2	56.1	1,293
Middle	97.3	1,381	37.6	69.4	58.9	1,054
Fourth	96.8	1,253	42.6	77.6	54.6	979
Highest	92.9	1,259	42.2	77.2	54.8	921
Total	96.8	7,789	35.1	68.3	55.7	5,711

Note: Table is based on births in the past five years whether the children are living or dead at the time of interview. Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes children who started breastfeeding within one hour of birth
[2] Children given something other than breast milk during the first three days of life
[3] Doctor, nurse, or midwife

Table 15.2 shows the percentage of all children born in the five years before the survey by breastfeeding status and the timing of initial breastfeeding, by background characteristics. Breastfeeding is nearly universal in Cambodia, with 97 percent of children born in the five years preceding the survey having been breastfed at some time. The proportion of children ever breastfed ranges from a low of 92 percent in Phnom Penh to a high of 98 percent in Kampong Thom, Pursat,

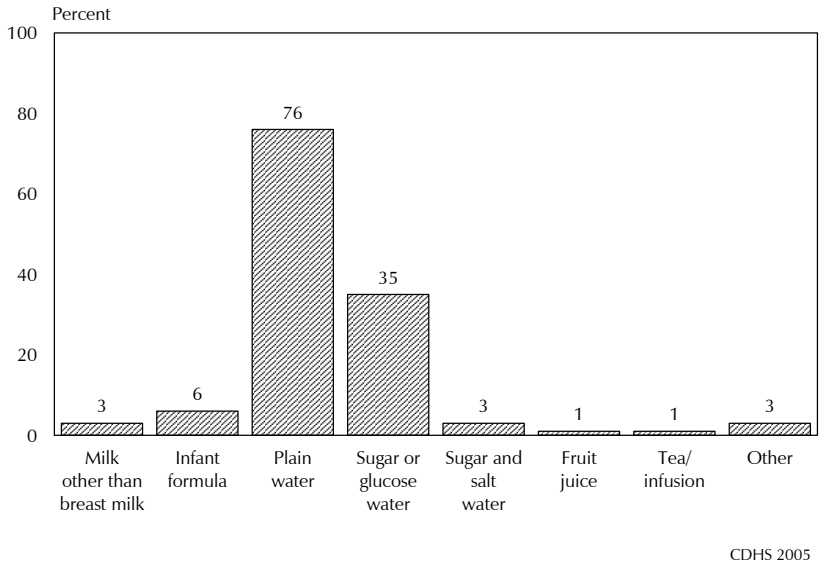
and Svay Rieng. However, the percentage of children ever breastfed does not vary much by other background characteristics.

About one in three children is breastfed within one hour of birth (35 percent) and 68 percent within one day of birth. Fifty-six percent of children were given a prelacteal feed, that is, something other than breast milk during the first three days of life.

There is a small difference in the timing of initial breastfeeding by gender of the child; a larger percentage of females are breastfed within one hour and one day than are males. Other background characteristics have important influences on early breastfeeding practices. Early initiation of breastfeeding is more common among children whose mothers were assisted at delivery by a health professional than among children delivered at home. Regional differences are evident in the initial breastfeeding practices. Children born in Pursat are over five times more likely to be breastfed within one hour of birth than children born in Kampong Cham and Kampong Chhnang. Highly educated mothers are more likely than those with little or no education to put their newborn to the breast within the first hour or day of birth. The percentage of children who were put to the breast early increases as wealth increases. Differences in early breastfeeding by wealth are small.

Figure 15.3 presents the various kinds of prelacteal liquids given to the Cambodian children in 2005 CDHS. Cambodian children receive plain water (76 percent) and sugar or glucose water (35 percent) as the most common type of prelacteal liquids.

Figure 15.3 **Among Last-born Children Born in the Five Years Preceding the Survey Who Ever Received a Prelacteal Liquid, the Percentage Who Received Various Types of Liquids**



15.3 BREASTFEEDING STATUS BY AGE

UNICEF and WHO recommend that children be exclusively breastfed during the first 6 months of life and that children be given solid or semisolid complementary food in addition to continued breastfeeding from six months on. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially disease. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in a harsh socioeconomic environment, supplementary food is often nutritionally inferior.

Information on complementary feeding was obtained by asking mothers about the current breastfeeding status of all children under five years of age and, for the youngest child born in the three-year period before the survey and living with the mother, food (liquids or solids) given to the child the day before the survey.

Table 15.3 Breastfeeding status by age

Percent distribution of youngest children under three years living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under three years using a bottle with a nipple, according to age in months, Cambodia 2005

	Percent distribution of youngest children under three living with their mother by breastfeeding status										
			Breastfeeding and consuming:								
Age in months	Not breast-feeding	Exclusively breastfed	Plain water only	Non-milk liquids/ juice	Other milk	Comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest children under three years	Percentage using a bottle with a nipple[1]	Number of children under three years
0-1	0.5	74.0	18.4	0.0	6.4	0.7	100.0	99.5	206	5.8	209
2-3	4.8	63.0	20.2	0.0	6.9	5.1	100.0	95.2	277	12.6	277
4-5	4.8	45.6	27.9	0.1	2.4	19.2	100.0	95.2	256	13.5	258
6-8	3.4	6.0	10.0	0.7	0.2	79.8	100.0	96.6	393	9.9	394
9-11	5.3	0.3	3.3	0.0	0.0	91.1	100.0	94.7	371	14.3	379
12-17	12.4	0.0	0.4	0.1	0.1	86.9	100.0	87.6	737	13.5	747
18-23	40.5	0.0	0.1	0.0	0.0	59.4	100.0	59.5	719	10.1	770
24-35	77.3	0.0	0.0	0.0	0.0	22.6	100.0	22.7	1,118	8.0	1,418
0-3	3.0	67.7	19.4	0.0	6.7	3.2	100.0	97.0	483	9.6	486
0-5	3.6	60.0	22.4	0.0	5.2	8.8	100.0	96.4	739	11.0	743
6-9	4.0	4.8	8.9	0.5	0.1	81.7	100.0	96.0	512	11.5	514
12-15	10.1	0.0	0.3	0.0	0.2	89.4	100.0	89.9	499	13.7	504
12-23	26.3	0.0	0.2	0.1	0.1	73.3	100.0	73.7	1,456	11.8	1,517
20-23	45.8	0.0	0.1	0.0	0.0	54.1	100.0	54.2	493	10.2	532

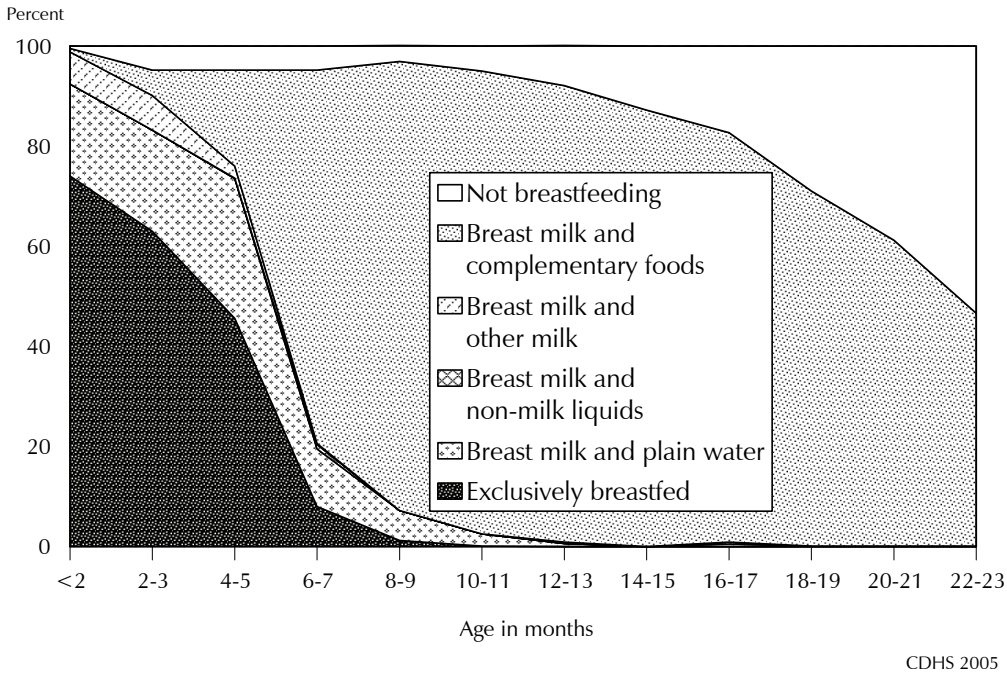
Note: Breastfeeding status refers to a 24-hour period (yesterday and the past night). Children who are classified as *breastfeeding and consuming plain water only* consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids/juice, other milk, and complementary foods (solids and semisolids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

[1] Based on all children under three years

Table 15.3 shows the percent distribution of youngest children under three years living with the mother by breastfeeding status and percentage of children under three years using a bottle with a nipple, according to age in months. The data presented in Table 15.3 and Figure 15.3 shows that not all children under 6 months are exclusively breastfed. Contrary to WHO's recommendations less than half of Cambodian children age 4-5 months is exclusively breastfed. The table also shows that about three-fourths of children under 2 months of age are exclusively breastfed, 18 percent consume breast milk and plain water, and 6 percent are consuming other milk in addition to breast milk. Although, 2005 CDHS results indicate that 80 percent of children start eating complementary foods by 6 months, still 6 percent of children continue to be exclusively breastfed and 10 percent receive just plain water in addition to breast milk.

More than half of Cambodian children continue to breastfeed until the age of two years (Figure 15.4). Exclusive breastfeeding quickly declines from birth to age 6-7 months. However, a few infants are still exclusively breastfed beyond this age which is not recommended. Although other liquids are not needed before six months, over 20 percent of infants are given water from birth.

Figure 15.4 Infant Feeding Practices by Age



15.4 DURATION AND FREQUENCY OF BREASTFEEDING

Table 15.4 shows the median duration of breastfeeding by selected background characteristics. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of last-born children in the three years preceding the survey who were being breastfed at the time of the survey.

The median duration of breastfeeding is 21.0 months, while the mean duration is 21.6 months. There is little difference in the duration of breastfeeding by sex of the child. Rural children are breastfed for a slightly longer duration than urban children. Highly educated mothers breastfeed their children for a shorter duration than mothers with little or no education. Mothers from the highest wealth quintile breastfeeds for the shortest duration.

Both duration and frequency of breastfeeding can affect the length of postpartum amenorrhea. Table 15.4 shows that the overwhelming majority (97 percent) of children under six months of age were breastfed 6 or more times in the 24 hours preceding the survey. In line with expectations, breastfeeding is slightly more frequent in the daytime than at night, with the mean number of feeds in the daytime being 5.9 compared with 5.2 at night. Breastfeeding during the day is most frequent among children residing in the Pursat than in the other provinces, while night feeds are most frequent among children in Kampong Thom and Prey Veng province.

Table 15.4 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of breastfeeding children under six months of age living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, Cambodia 2005

	Median duration (months) of breastfeeding among last-born children in the past three years[1]				Frequency of breastfeeding among children under six months of age[2]			
Background characteristic	Any breast-feeding	Exclusive breast-feeding	Predomi-nant breast-feeding[3]	Number of children	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex								
Male	21.3	3.1	4.8	2,413	99.1	5.9	5.4	351
Female	20.7	3.3	5.3	2,301	94.8	5.9	5.1	363
Residence								
Urban	19.0	2.4	3.6	672	96.9	5.6	4.8	89
Rural	21.5	3.4	5.2	4,042	96.9	5.9	5.3	624
Province								
Banteay Mean Chey	19.7	5.0	5.7	210	(96.7)	(6.6)	(6.2)	29
Kampong Cham	18.9	2.9	5.0	576	(93.9)	(5.0)	(5.5)	95
Kampong Chhnang	20.4	4.0	5.0	194	(100.0)	(7.2)	(5.5)	32
Kampong Speu	22.3	3.4	4.8	271	(95.1)	(4.9)	(4.1)	30
Kampong Thom	21.3	0.7	4.5	241	(97.2)	(5.6)	(6.6)	35
Kandal	21.2	3.2	5.3	408	(100.0)	(7.9)	(5.7)	66
Kratie	19.9	4.7	5.4	120	96.1	5.9	5.3	22
Phnom Penh	16.7	2.2	3.1	369	(96.3)	(5.6)	(4.5)	52
Prey Veng	23.2	4.0	5.1	361	(98.5)	(4.5)	(6.6)	47
Pursat	23.5	4.9	5.9	131	(97.4)	(7.8)	(5.1)	23
Siem Reap	20.9	2.7	5.3	405	(97.5)	(5.8)	(5.0)	61
Svay Rieng	20.9	4.6	6.2	157	(100.0)	(5.6)	(4.7)	25
Takeo	22.5	3.3	5.1	282	(97.4)	(5.8)	(4.7)	42
Otdar Mean Chey	23.4	0.7	5.9	63	(98.5)	(7.0)	(5.3)	11
Battambang/Krong Pailin	21.8	2.7	4.8	339	(95.0)	(5.9)	(4.5)	55
Kampot/Krong Kep	22.8	3.5	5.7	231	(100.0)	(5.7)	(4.9)	31
Krong Preah Sihanouk/ Kaoh Kong	20.1	1.5	3.5	123	(92.5)	(5.7)	(5.6)	19
Preah Vihear/Steung Treng	20.9	2.6	5.7	136	93.9	5.2	3.9	24
Mondol Kiri/Rattanak Kiri	24.2	2.2	5.6	98	95.8	5.2	4.7	15
Mother's education								
No schooling	22.2	2.5	4.8	1,114	96.0	5.7	5.2	166
Primary	21.1	3.4	5.3	2,779	97.1	5.8	5.3	427
Secondary and higher	19.4	3.3	4.3	822	97.5	6.2	5.1	119
Wealth quintile								
Lowest	21.1	3.2	5.0	1,288	98.0	5.6	5.4	187
Second	22.7	3.6	5.8	1,046	94.6	6.0	4.8	158
Middle	20.9	3.8	5.1	834	97.4	5.8	5.5	140
Fourth	21.3	2.5	4.9	768	97.6	6.2	5.3	119
Highest	18.4	2.4	3.7	779	96.7	6.0	5.3	108
All children	21.0	3.2	5.0	4,715	96.9	5.9	5.2	713
Mean for all children	21.6	4.1	5.7	4,715	na	na	na	na

Note: Median and mean durations are based on current status. Includes children living and deceased at the time of the survey. Figures in parentheses are based on 25-49 unweighted cases.

[1] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding

[2] Excludes children who do not have a valid answer on the number of times breastfed

[3] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

na = Not applicable

15.5 TYPES OF COMPLEMENTARY FOODS

UNICEF and WHO recommend the introduction of solid food to infants around the age of 6 months because by that age breast milk alone is no longer sufficient to maintain a child's optimal growth. In the transition to eating the family diet, children from the age of six months are fed small quantities of solid and semisolid foods throughout the day. During this transition period (ages 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections and poor feeding practices.

Table 15.5 provides information on the types of food given to the youngest child under three years of age living with the mother on the day and night preceding the survey, according to their breastfeeding status. The data show that among breastfeeding infants very few receive infant formula or any other kinds of milk. However, 5 percent of younger breastfeeding infants (2-3 months) are already consuming food made from grains, and 3 percent consume food made from meat, fish, poultry, and eggs.

Table 15.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under three years of age living with the mother who consumed specific types of foods in the day or night preceding the interview, by breastfeeding status and age, Cambodia 2005

	Liquids			Solid or semisolid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vegetables rich in vitamin A[4]	Other fruits and vegetables	Food made from roots and tubers	Food made from beans, peas, or nuts	Meat, fish, poultry, and eggs	Any other solid or semi-solid food	Food made with oil, fat, or butter	Sugary foods	Number of children
BREASTFEEDING CHILDREN														
0-1	4.1	2.3	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	205
2-3	4.5	2.7	0.0	2.2	4.7	2.3	1.5	1.1	1.1	3.0	2.1	2.6	1.7	263
4-5	4.8	2.6	0.3	3.4	17.3	1.5	1.3	0.0	0.0	5.2	2.1	0.0	4.7	244
6-8	2.6	2.5	7.2	16.0	76.0	22.2	8.8	6.2	2.2	40.7	13.4	8.2	20.8	379
9-11	5.2	1.7	7.9	14.0	94.3	49.7	23.9	8.8	9.2	78.5	24.3	14.2	37.4	352
12-17	4.1	3.9	13.9	14.9	97.3	56.8	28.0	12.6	13.5	93.1	26.0	23.7	49.7	645
18-23	1.3	3.0	21.9	11.6	97.3	66.3	30.9	16.9	15.8	94.4	28.8	27.0	55.2	428
24-35	1.8	3.6	16.0	13.6	98.6	64.2	30.1	12.3	10.2	95.3	28.6	29.5	58.2	253
6-23	3.3	3.0	13.2	14.2	92.3	50.4	23.9	11.5	10.8	79.6	29.7	19.4	42.5	1,804
Total	3.5	2.9	10.1	11.0	71.1	39.0	18.5	8.7	8.1	61.3	18.4	15.6	33.6	2,770
NONBREASTFEEDING CHILDREN														
0-1	*	*	*	*	*	*	*	*	*	*	*	*	*	1
2-3	*	*	*	*	*	*	*	*	*	*	*	*	*	13
4-5	*	*	*	*	*	*	*	*	*	*	*	*	*	12
6-8	*	*	*	*	*	*	*	*	*	*	*	*	*	13
9-11	*	*	*	*	*	*	*	*	*	*	*	*	*	20
12-17	33.7	14.6	31.8	17.7	96.0	68.1	42.1	11.0	10.4	95.2	30.9	18.9	51.8	92
18-23	8.8	13.4	22.0	15.2	98.9	63.2	33.9	12.4	13.4	98.9	27.7	22.3	64.7	291
24-35	4.6	7.2	24.3	13.9	96.9	63.0	38.5	23.0	16.3	96.9	30.8	30.5	64.1	865
6-23	20.5	14.1	23.6	17.7	97.3	62.9	35.3	11.3	12.3	95.8	28.6	20.4	58.8	416
Total	11.1	9.4	23.6	15.0	95.5	61.7	36.8	18.8	14.7	94.6	29.5	26.6	61.3	1,308

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and the past night). An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Other milk includes fresh, tinned, and powdered animal milk

[2] Does not include plain water

[3] Includes fortified baby food

[4] Includes pumpkin, orange or yellow squash, carrots, sweet potatoes, dark green leafy vegetables, mangoes, and papayas

Between the ages of 6 and 23 months, the consumption of foods made from grains is the highest among both breastfeeding (92 percent) and nonbreastfeeding (97 percent) children, compared with the consumption of other types of solid or semisolid foods. More than half of all the children age 6-23 months have eaten a food rich in vitamin A in the day or night preceding the survey. There is a low consumption of food made from roots or tubers and food made from beans, peas, or nuts.

Comparing dietary intake of children by their breastfeeding status, a higher proportion of solid and semisolid foods are being consumed by nonbreastfeeding children However, few are receiving infant formula (21 percent) or other milks (14 percent) in addition to solid foods which is essential since they are not benefiting from breast milk. A larger percentage of non-breastfed children age 6-23 months are receiving meat, fish, poultry and eggs (96 percent) compared with breastfed children (80 percent) in this same age group.

15.6 Infant and Young Child Feeding (IYCF) Practices

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semisolid foods from age six months and increasing the amount and variety of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding. Guidelines have been established with respect to IYCF practices for children age 6-23 months (PAHO/WHO, 2003 and WHO, 2005).

Table 15.6 presents a summary indicator of IYCF practices. The indicator takes into account the percentages of children for whom feeding practices met minimum standards with respect to food diversity (i.e., the number of food groups consumed) and feeding frequency (i.e., the number of times the child was fed), as well the consumption of breast milk or other milks or milk products. Breastfed children are considered as being fed with the minimum standards if they consume at least three food groups[2] and receive foods other than breast milk at least twice per day in the case of infants 6-8 months and at least three times per day in the case of children 9-23 months. Nonbreastfed children are considered to be fed if they consumed milk or milk products, four food groups (including milk products), and are fed at least four times per day.

According to the results presented in Table 15.6, 87 percent of youngest children age 6-23 months living with the mother received breast milk or other milk or milk products during the 24-hour period before the survey, 63 percent had a minimally diverse diet (i.e., they had been fed foods from the minimum number of food groups depending on their age and breastfeeding status), and 67 percent had been fed the minimum number of times appropriate for their age. Feeding practices for about half of Cambodian children age 6-23 months met the minimum standard with respect to all three of these feeding practices (Figure 15.5).

[2] Food groups used in the assessment of minimum standard of feeding practices include: milk other than breast milk, foods made from grains, roots, and tubers; fruits and vegetables rich in vitamin A; other fruits and vegetables; eggs; meat, poultry, fish, and shellfish (and organ meats); beans, peas, and nuts; and foods made with oil, fat, or butter.

Table 15.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based upon number of food groups and times they are fed during the day or night preceding the survey by breastfeeding status and background characteristics, Cambodia 2005

	Among breastfed children 6-23 months, percentage fed:				Among nonbreastfed children 6-23 months, percentage fed:					Among all children 6-23 months, percentage fed:				
Background characteristic	3+ food groups[1]	Minimum times or more[2]	Both 3+ food groups and minimum times or more	Number of children	Milk or milk products[3]	4+ food groups	4+ times or more	With 3 IYCF practices[4]	Number of children	Breast-milk or milk products[3]	3+ or 4+ food groups[5]	Minimum times or more[6]	With all 3 IYCF practices	Number of children
Age														
6-8	29.4	70.3	28.2	379	*	*	*	*	13	100.0	30.2	69.0	27.7	393
9-11	61.4	56.4	42.7	352	*	*	*	*	20	99.6	61.8	54.5	41.6	371
12-17	76.7	74.7	61.4	645	46.1	69.6	40.0	20.8	92	93.3	75.8	70.4	56.3	737
18-23	80.8	80.5	69.6	428	20.3	51.6	51.4	8.8	291	67.7	68.9	68.7	45.0	719
Sex														
Male	65.9	72.5	53.8	924	34.7	56.6	45.6	13.1	206	88.1	64.2	67.6	46.4	1,130
Female	63.5	70.7	51.5	880	29.4	56.3	48.0	11.4	210	86.4	62.1	66.3	43.8	1,091
Residence														
Urban	70.1	78.5	58.7	220	57.7	71.4	40.9	18.0	96	87.1	70.5	67.1	46.3	316
Rural	64.0	70.6	51.9	1,584	24.3	51.9	48.6	10.5	320	87.3	62.0	66.9	44.9	1,904
Province														
Banteay Mean Chey	44.8	58.7	31.0	83	(20.1)	(20.3)	(26.0)	(0.0)	22	83.4	39.7	51.9	24.6	105
Kampong Cham	60.9	76.6	56.6	214	(16.2)	(32.8)	(78.8)	(15.5)	72	78.9	53.8	77.2	46.2	286
Kampong Chhnang	75.1	75.3	59.6	75	*	*	*	*	16	85.1	72.3	68.4	49.5	91
Kampong Speu	61.1	75.3	50.7	119	*	*	*	*	19	90.9	62.0	69.1	45.2	139
Kampong Thom	59.8	61.4	40.1	102	(4.0)	(46.5)	(24.8)	(0.0)	23	82.0	57.3	54.6	32.6	125
Kandal	79.5	81.2	71.0	162	*	*	*	*	29	90.3	81.7	77.0	63.9	191
Kratie	78.8	76.3	66.4	40	*	*	*	*	7	87.6	77.7	71.7	56.8	48
Phnom Penh	65.6	69.8	55.1	99	(72.1)	(66.8)	(37.2)	(18.7)	81	87.4	66.2	55.1	38.7	180
Prey Veng	52.1	59.3	35.4	158	*	*	*	*	21	89.9	51.5	60.3	32.1	179
Pursat	68.7	74.1	55.6	58	*	*	*	*	5	92.9	66.6	72.0	51.5	63
Siem Reap	70.5	69.1	53.5	155	(27.0)	(70.2)	(50.6)	(17.7)	40	85.2	70.5	65.3	46.2	195
Svay Rieng	58.4	59.7	40.3	55	*	*	*	*	5	96.3	59.5	58.0	38.7	60
Takeo	64.6	69.1	47.6	109	*	*	*	*	13	92.3	62.4	64.1	42.6	121
Otdar Mean Chey	55.1	78.6	51.3	26	*	*	*	*	3	90.4	51.1	71.4	46.1	29
Battambang/ Krong Pailin	82.4	79.7	69.1	124	*	*	*	*	23	86.9	81.9	75.8	59.6	147
Kampot/Krong Kep	74.0	87.7	69.3	89	*	*	*	*	11	92.7	71.5	84.7	63.8	100
Krong Preah Sihanouk/ Kaoh Kong	66.0	67.5	52.6	46	(44.8)	(59.4)	(12.1)	(0.0)	12	88.5	64.6	56.0	41.6	58
Preah Vihear/ Steung Treng	38.4	60.4	29.1	51	*	*	*	*	7	90.0	37.4	54.9	25.7	58
Mondol Kiri/ Rattanak Kiri	48.6	71.2	44.5	39	*	*	*	*	7	90.1	50.1	66.2	39.1	46
Mother's education														
No schooling	64.5	66.6	47.4	428	13.9	50.3	36.0	3.5	72	87.7	62.5	62.2	41.1	499
Primary	64.6	73.8	54.3	1,085	26.2	52.1	49.7	10.3	245	86.4	62.3	69.4	46.2	1,330
Secondary and higher	65.6	70.6	54.5	291	59.2	71.4	47.6	23.3	100	89.6	67.1	64.7	46.5	391
Wealth quintile														
Lowest	60.0	67.0	44.9	493	6.4	40.0	36.2	1.1	97	84.6	56.8	62.0	37.7	590
Second	63.8	71.8	54.1	431	17.4	52.2	41.5	5.2	55	90.6	62.5	68.4	48.6	486
Middle	65.9	75.9	53.8	334	17.0	54.6	60.6	13.5	70	85.5	63.9	73.2	46.8	404
Fourth	73.2	72.4	60.3	299	30.3	51.6	59.7	18.7	68	87.1	69.2	70.1	52.6	367
Highest	63.8	73.6	55.1	247	67.3	74.6	42.7	19.7	126	88.9	67.5	63.1	43.2	374
Total	64.7	71.6	52.7	1,804	32.0	56.4	46.8	12.3	416	87.3	63.2	67.0	45.1	2,220

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Food groups: a. infant formula, milk other than breast milk or other milk products; b. foods made from grains, roots, and tubers, including porridge, fortified baby food from grains; c. fruits and vegetables rich in vitamin A; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts; h. foods made with oil, fat, butter.

[2] At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months

[3] Includes commercial infant formula, fresh, tinned and powdered animal milk, yogurt, and other milk products

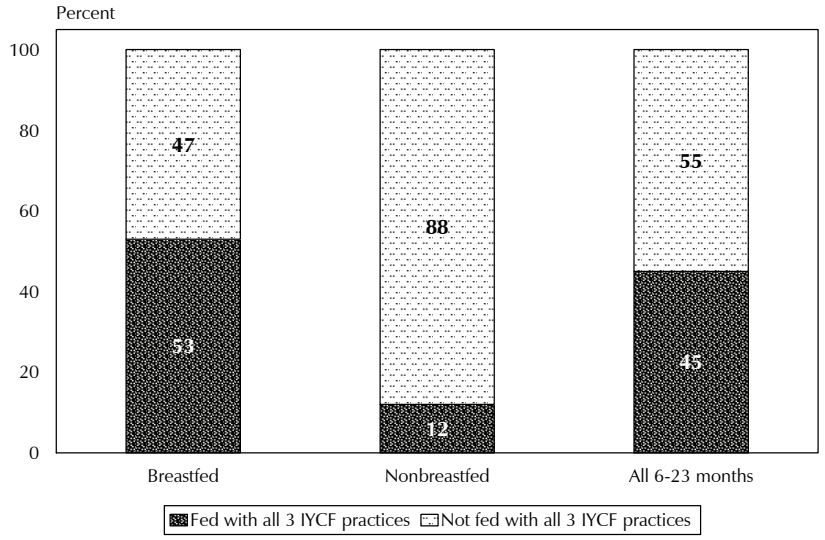
[4] Nonbreastfed children ages 6-23 months are considered to be fed with three appropriate feeding practices if they receive other milk or milk products and are fed at least the minimum number of times per day with at least the minimum number of food groups.

[5] 3+ food groups for breastfed children and 4+ food groups for non-breastfed children

[6] Fed solid or semisolid food at least twice a day for infants 6-8 months, 3+ times for other breastfed children, and 4+ times for non-breastfed children

Breastfed children were slightly more likely to be fed the minimum number of times and slightly less likely to receive foods from the minimum number of groups than nonbreastfed children. As the child's age increased, feeding practices were generally more likely to comply with minimum standards for the breastfed child and less likely to comply for the non-breastfed child. Regional differences in the feeding practices of children are apparent in the 2005 CDHS results, children residing in Kandal province are twice likely to be fed according to the three IYCF practices compared with Banteay Mean Chey. Variations in feeding practices with the other characteristics shown in Table 15.6 are generally minor.

Figure 15.5 **Infant and Young Child Feeding (IYCF) Practices**



CDHS 2005

15.7 PREVALENCE OF ANEMIA IN CHILDREN

Common causes of anemia include inadequate intake of iron, folate, vitamin B_{12} or other nutrients. Anemia can also result from thalassemia, sickle cell disease, malaria, and intestinal worm infestation. Anemia may be the underlying cause of maternal mortality, spontaneous abortion, premature birth, and low birth weight. Iron and folic acid supplementation and antimalarial prophylaxis for pregnant women, promotion of the use of insecticide-treated bednets by pregnant women and children under five, and six-month deworming for children are some of the important measures to reduce anemia prevalence among vulnerable groups. Anemia is characterized by a low level of hemoglobin in the blood.

Table 15.7 shows the percentage of children age 6-59 months classified as having anemia, by background characteristics. Anemia is a critical public health problem in Cambodia, where more than half (62 percent) of Cambodian children 6-59 months old are anemic, with 29 percent mildly anemic, 32 percent moderately anemic, and 1 percent severely anemic. Anemia is highest among children age 9-11 months, and children who live in Pursat province. A higher percentage of children of uneducated mothers have anemia. The percentage of children with anemia decreases as wealth quintile increases.

Table 15.7 Prevalence of anemia in children

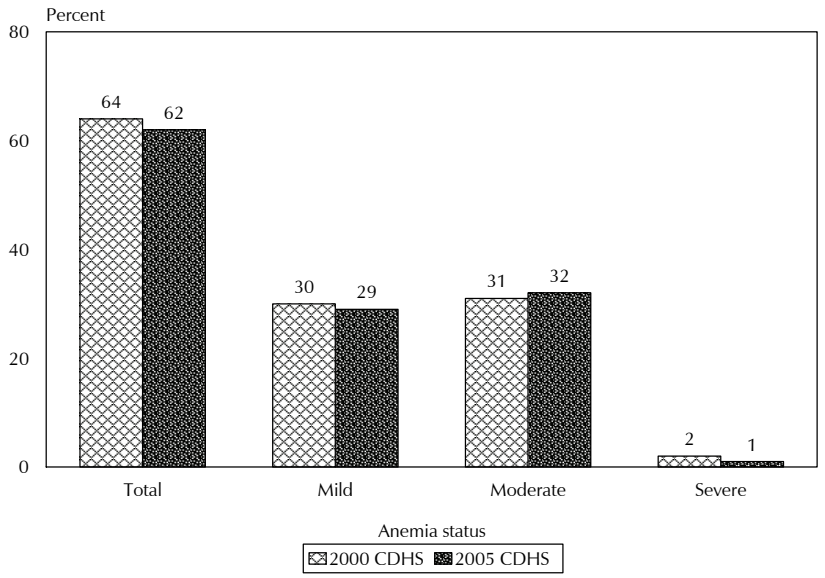
Percentage of children age 6-59 months classified as having anemia, by background characteristics, Cambodia 2005

Background characteristic	Anemia status by hemoglobin level: Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)	Any anemia (<11.0 g/dl)	Number of children
Age in months					
6-8	26.0	54.2	0.3	80.5	163
9-11	24.5	61.7	0.9	87.1	170
12-17	24.8	59.2	1.8	85.8	370
18-23	32.6	36.8	1.2	70.7	376
24-35	32.7	25.7	0.2	58.6	679
36-47	28.8	21.5	0.8	51.1	721
48-59	27.8	19.5	0.4	47.7	679
Sex					
Male	28.9	34.4	0.8	64.2	1,561
Female	29.1	29.8	0.6	59.5	1,597
Mother's status					
Interviewed	29.2	32.3	0.7	62.2	2,926
Not interviewed but in household	35.5	25.1	0.0	60.6	53
Not interviewed, and not in the household[1]	24.5	30.8	0.5	55.8	178
Residence					
Urban	29.5	29.6	0.6	59.7	400
Rural	29.0	32.5	0.7	62.2	2,758
Province					
Banteay Mean Chey	26.7	43.3	0.6	70.6	131
Kampong Cham	38.4	18.1	0.0	56.5	383
Kampong Chhnang	26.6	31.8	1.8	60.2	128
Kampong Speu	25.5	37.9	0.0	63.4	189
Kampong Thom	27.2	46.5	1.4	75.1	175
Kandal	26.1	28.8	0.0	54.9	289
Kratie	24.5	33.9	0.5	58.9	91
Phnom Penh	32.2	20.0	0.0	52.2	220
Prey Veng	27.3	29.5	0.8	57.6	232
Pursat	29.4	52.2	3.0	84.6	76
Siem Reap	25.9	51.0	1.1	78.1	283
Svay Rieng	32.0	35.6	0.9	68.5	105
Takeo	29.0	25.9	1.0	55.9	222
Otdar Mean Chey	27.8	43.1	2.3	73.2	38
Battambang/Krong Pailin	28.8	25.5	0.6	54.9	227
Kampot/Krong Kep	27.1	20.0	1.4	48.5	153
Krong Preah Sihanouk/ Kaoh Kong	28.4	43.2	2.1	73.7	70
Preah Vihear/Steung Treng	32.0	35.4	0.0	67.4	85
Mondol Kiri/Rattanak Kiri	25.4	37.1	1.0	63.4	61
Mother's education[2]					
No schooling	30.1	37.6	0.8	68.5	726
Primary	29.3	32.1	0.8	62.3	1,765
Secondary and higher	28.1	24.2	0.2	52.5	489
Wealth quintile					
Lowest	28.1	40.4	0.9	69.4	811
Second	29.9	35.1	1.0	65.9	700
Middle	27.5	32.8	1.0	61.3	602
Fourth	29.2	26.1	0.5	55.9	550
Highest	31.0	20.1	0.0	51.0	494
Total	29.0	32.1	0.7	61.9	3,158

Note: Table is based on children who stayed in the household the night before the interview. Hemoglobin in grams per deciliter (g/dl).
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Figure 15.6 presents the trends in anemia status among children age 6-59 months. The level of total and various gradation of anemia have remained about the same in last five years.

Figure 15.6 **Trends in Anemia Status among Children Age 6-59 Months**



15.8 MICRONUTRIENT INTAKE AMONG CHILDREN

A serious contributor to childhood morbidity and mortality is micronutrient deficiency. Children can receive micronutrients from foods, food fortification, and direct supplementation. Table 15.8 looks at measures relating to intake of several key micronutrients among children.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage. VAD can also increase severity of infections such as measles and diarrheal diseases in children and slows recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, red palm oil, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. The liver can store an adequate amount of the vitamin for four to six months. Periodic dosing (usually every six months) of vitamin A supplements is one method of ensuring that children at risk do not develop VAD.

The CDHS collected information on the consumption of foods rich in vitamin A and on the coverage of supplements. Table 15.8 shows that 88 percent of last-born children living with the mother consumed foods rich in vitamin A in the 24-hour period before the survey. Consumption of foods rich in vitamin A increases from 43 percent among children age 6-8 months to 98 percent among children age 18-23 months. There is no gender difference in the consumption of foods rich in vitamin A. Not surprisingly, breastfeeding children are much less likely to consume foods rich in vitamin A than nonbreastfeeding children. Children living in Battambang/Krong Pailin, Kratie, Kampot/Krong Kep, and Kandal are more likely than children living in other provinces to consume foods rich in vitamin A.

Eighty-seven percent of children consume foods rich in iron. Noticeable differences by background characteristics similar to those seen for the consumption of foods rich in vitamin A.

Table 15.8 Micronutrient intake among children

Percentage of youngest children age 6-35 months living with their mother who consumed foods rich in vitamin A and iron in the day or night preceding the survey, and percentage of children age 6-59 months who received vitamin A supplements in the six months preceding the survey, who received iron supplements in the past seven days, who received deworming medication in the six months preceding the survey, and who live in households using iodized salt, by background characteristics, Cambodia 2005

	Last-born children age 6-35 months			Children age 6-59 months				Children age 6-59 months in households with salt tested	
Background characteristic	Percentage who consumed foods rich in vitamin A in past 24 hours[1]	Percentage who consumed foods rich in iron in past 24 hours[2]	Number of children	Percentage who received vitamin A supplements in past 6 months	Percentage who received iron supple-ments in past 7 days	Percentage who received deworming medication in past 6 months[3]	Number of children	Percentage living in households using iodized salt[4]	Number of children
Age in months									
6-8	42.9	41.2	393	42.2	1.8	3.6	394	75.6	389
9-11	80.7	78.6	371	47.8	1.4	8.1	379	76.6	376
12-17	93.9	93.4	737	42.6	1.3	19.8	747	75.0	739
18-23	97.7	96.3	719	34.0	0.8	28.7	770	74.1	755
24-35	97.1	96.6	1,118	32.9	1.3	31.3	1,418	73.6	1,398
36-47	na	na	na	30.9	1.2	31.6	1,430	73.1	1,408
48-59	na	na	na	30.0	1.2	31.0	1,389	71.0	1,366
Sex									
Male	88.1	87.0	1,704	33.9	1.1	27.3	3,241	72.8	3,192
Female	88.5	87.5	1,635	35.1	1.3	26.1	3,286	74.1	3,240
Breastfeeding status									
Breastfeeding	82.9	81.5	2,057	41.6	1.4	18.2	2,193	72.7	2,163
Not breastfeeding	97.1	96.5	1,278	31.1	1.1	31.0	4,293	74.0	4,228
Missing	100.0	100.0	3	15.5	5.7	26.3	41	59.1	40
Residence									
Urban	89.7	89.1	474	32.5	1.0	26.3	929	84.7	905
Rural	88.1	87.0	2,864	34.9	1.3	26.7	5,598	71.6	5,526
Province									
Banteay Mean Chey	82.1	80.6	149	44.4	0.0	31.0	287	66.6	283
Kampong Cham	84.3	83.4	421	11.4	0.0	22.7	785	82.6	773
Kampong Chhnang	89.9	89.9	120	26.2	1.3	20.2	260	84.1	256
Kampong Speu	90.3	86.0	203	34.1	0.0	33.6	403	71.1	396
Kampong Thom	86.3	84.1	182	44.4	3.0	24.3	333	78.0	328
Kandal	90.9	90.9	299	44.9	1.7	33.7	569	75.0	560
Kratie	92.6	92.3	75	28.4	0.3	16.9	155	89.2	148
Phnom Penh	87.1	87.1	262	26.1	0.6	21.2	528	90.0	510
Prey Veng	88.1	88.1	265	44.5	2.4	38.7	511	46.4	504
Pursat	88.3	87.1	88	44.4	10.6	39.2	182	89.8	180
Siem Reap	90.8	88.9	284	40.0	1.1	14.0	565	81.6	565
Svay Rieng	89.5	87.6	106	27.1	1.7	28.6	211	15.8	211
Takeo	90.4	90.4	205	49.5	0.1	15.0	419	73.7	413
Otdar Mean Chey	85.2	83.2	41	37.1	3.7	23.2	82	84.8	81
Battambang/Krong Pailin	93.5	93.5	232	53.9	0.3	47.2	434	91.5	432
Kampot/Krong Kep	92.8	92.8	164	13.9	0.0	21.6	331	36.1	329
Krong Preah Sihanouk/ Kaoh Kong	85.8	83.0	85	46.4	3.4	38.5	171	82.1	168
Preah Vihear/Steung Treng	83.6	82.8	93	18.5	0.4	19.9	170	84.2	168
Mondol Kiri/Rattanak Kiri	78.1	71.4	65	19.4	1.1	5.8	132	61.0	126
Mother's education									
No schooling	89.3	87.6	762	30.2	1.0	21.4	1,560	70.1	1,530
Primary	88.0	86.9	1,984	35.9	1.2	27.2	3,850	72.0	3,788
Secondary and higher	88.4	88.1	593	35.8	1.6	32.0	1,118	83.2	1,114

Continued...

Table 15.8—*Continued*

Percentage of youngest children age 6-35 months living with their mother who consumed foods rich in vitamin A and iron in the day or night preceding the survey, and percentage of children age 6-59 months who received vitamin A supplements in the six months preceding the survey, who received iron supplements in the past seven days, who received deworming medication in the six months preceding the survey, and who live in households using iodized salt, by background characteristics, Cambodia 2005

	Last-born children age 6-35 months			Children age 6-59 months				Children age 6-59 months in households with salt tested	
Background characteristic	Percentage who consumed foods rich in vitamin A in past 24 hours[1]	Percentage who consumed foods rich in iron in past 24 hours[2]	Number of children	Percentage who received vitamin A supplements in past 6 months	Percentage who received iron supple-ments in past 7 days	Percentage who received deworming medication in past 6 months[3]	Number of children	Percentage living in households using iodized salt[4]	Number of children
Mother's age at birth									
15-19	89.2	88.3	318	31.9	0.7	25.4	707	71.9	697
20-29	87.7	86.6	1,740	35.4	1.2	27.2	3,395	73.3	3,342
30-39	89.1	88.0	1,091	34.2	1.5	26.3	2,103	73.6	2,075
40-49	88.0	87.7	189	33.0	1.7	26.5	323	77.8	318
Wealth quintile									
Lowest	87.9	86.9	876	31.5	0.7	22.1	1,756	65.1	1,715
Second	87.5	85.5	732	36.4	1.7	25.4	1,486	67.5	1,469
Middle	90.3	89.3	593	36.4	1.7	27.1	1,134	73.6	1,125
Fourth	90.2	89.7	574	38.2	1.3	31.3	1,053	79.9	1,043
Highest	86.1	85.7	564	31.3	0.8	30.8	1,099	88.5	1,079
Total	88.3	87.3	3,338	34.5	1.2	26.7	6,527	73.5	6,432

Note: Information on vitamin A and iron supplements and deworming medication is based on the mother's recall.
na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, orange or yellow squash, carrots, sweet potatoes, dark green leafy vegetables, mango, and papaya
[2] Includes meat, (including organ meat), fish, poultry, and eggs
[3] Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis.
[4] Excludes children in households in which salt was not tested

Only one in three children age 6-59 months received a vitamin A supplement in the six months before the survey. Differences in the consumption of vitamin A supplements by gender, area of residence, mother's age at birth, and wealth quintile are small. The difference by breastfeeding status is marked, with a higher proportion of breastfeeding children receiving vitamin A supplements. Children residing in Kampong Cham are least likely to receive vitamin A supplements compared with children in the other regions.

Inadequate amounts of iodine in the diet are related to serious health risks for young children. The 2005 CDHS results show that 74 percent of children 6-59 months live in households using iodized salt. Children living in Battambang/Krong Pailin, Phnom Penh, Pursat, and Kratie are more likely to live in households using iodized salt.

15.9 Use of Iodized Salt

Iodine is an important micronutrient. Dietary deficiency of iodine constitutes a major, global public health concern. A lack of sufficient iodine is known to cause goiter, cretinism (a severe form of neurological defect), spontaneous abortion, premature birth, infertility, stillbirth, and increased child mortality. Iodine deficiency disorder (IDD) is the single most common cause of preventable mental retardation and brain damage in the world.

In the 2005 CDHS, a rapid test was used to determine the presence or absence of iodine in the salt used for cooking in the household. The test kit consisted of ampoules of a stabilized starch solution and a weak acid-based solution. A drop of the starch solution was squeezed onto a salt sample obtained in the household. A change in color indicated the presence of iodine.

Table 15.9 shows the percentage of households using iodized salt. Overall, 73 percent of households had salt with some iodine. A higher percentage of urban households (85 percent) are using iodized salt compared with rural households (71 percent). In Prey Veng, Svay Rieng, and Kampot/ Krong Kep provinces less than 50 percent of households are using iodized salt.

Table 15.9 Iodization of household salt

Percent distribution of all households by presence of salt that was tested for iodine content, and percent distribution of households with salt tested by presence of iodine in salt, according to background characteristics, Cambodia 2005

	All households				Households with salt tested			
Background characteristic	Percentage with salt tested	Percentage with no salt	Total	Number of households	Percentage with no iodine	Percentage with iodine present	Total	Number of households
Residence								
Urban	97.9	2.1	100.0	2,066	15.2	84.8	100.0	2,022
Rural	98.6	1.4	100.0	12,177	29.5	70.5	100.0	12,013
Province								
Banteay Mean Chey	98.9	1.1	100.0	595	30.6	69.4	100.0	588
Kampong Cham	98.3	1.7	100.0	2,012	16.0	84.0	100.0	1,978
Kampong Chhnang	98.9	1.1	100.0	544	18.0	82.0	100.0	538
Kampong Speu	97.8	2.2	100.0	775	28.6	71.4	100.0	758
Kampong Thom	98.8	1.2	100.0	689	20.2	79.8	100.0	681
Kandal	98.5	1.5	100.0	1,384	31.2	68.8	100.0	1,363
Kratie	95.9	4.1	100.0	289	9.6	90.4	100.0	278
Phnom Penh	98.3	1.7	100.0	1,180	9.0	91.0	100.0	1,160
Prey Veng	98.8	1.2	100.0	1,278	52.5	47.5	100.0	1,263
Pursat	99.4	0.6	100.0	430	10.0	90.0	100.0	427
Siem Reap	98.7	1.3	100.0	927	18.7	81.3	100.0	915
Svay Rieng	99.7	0.3	100.0	619	81.7	18.3	100.0	617
Takeo	98.9	1.1	100.0	991	26.0	74.0	100.0	981
Otdar Mean Chey	99.9	0.1	100.0	146	16.7	83.3	100.0	146
Battambang/Krong Pailin	99.7	0.3	100.0	891	9.0	91.0	100.0	888
Kampot/Krong Kep	98.9	1.1	100.0	724	63.2	36.8	100.0	716
Krong Preah Sihanouk/ Kaoh Kong	96.9	3.1	100.0	320	18.0	82.0	100.0	310
Preah Vihear/Steung Treng	98.1	1.9	100.0	262	16.2	83.8	100.0	257
Mondol Kiri/Rattanak Kiri	91.7	8.3	100.0	186	35.7	64.3	100.0	171
Wealth quintile								
Lowest	97.6	2.4	100.0	2,915	35.5	64.5	100.0	2,845
Second	98.4	1.6	100.0	2,930	34.1	65.9	100.0	2,884
Middle	99.3	0.7	100.0	2,904	29.5	70.5	100.0	2,884
Fourth	98.6	1.4	100.0	2,755	24.5	75.5	100.0	2,715
Highest	98.8	1.2	100.0	2,739	12.8	87.2	100.0	2,706
Total	98.5	1.5	100.0	14,243	27.5	72.5	100.0	14,035

15.10 NUTRITIONAL STATUS OF WOMEN

The height and weight of women age 15-49 was measured among a 50 percent subsample of households selected in the CDHS. The data are used to derive a measure of adult nutritional status known as body mass index (BMI). In this report, two indicators of nutritional status are presented: height and body mass index (BMI).

The height of a woman is associated with past socioeconomic status and nutrition during childhood and adolescence. A woman's height is used to predict the risk of difficulty in delivery because small stature is often associated with small pelvis size and the potential for obstructed labor. The risk of giving birth to a low birth weight baby is influenced by the mother's nutritional status. The cutoff point for the height at which mothers can be considered at risk varies between populations but normally falls between 140 and 150 centimeters. As in other DHS surveys, a cutoff point of 145 cm is used for the 2005 CDHS.

The index used to measure thinness or obesity is known as the body mass index (BMI), or the Quetelet index. BMI is defined as weight in kilograms divided by height squared in meters (kg/m^2). A cutoff point of 18.5 is used to define thinness or acute undernutrition and a BMI of 25 or above usually indicates overweight or obesity.

Table 15.10 presents the mean values of the two indicators of nutritional status and the proportions of women falling into high-risk categories, according to background characteristics. Women for whom there was no information on height and/or weight and for whom a BMI could not be estimated are excluded from this analysis. The data analysis on BMI is based on 7,799 women, while the height analysis is based on 8,370 women age 15-49 years. Overall, 8 percent of women are shorter than 145 cm. There are small differences in the height of women by background characteristics. A larger percentage of women in the Mondol Kiri/Rattanak, Kampong Thom and Otdar Mean Chey provinces are below 145 cm than women in the other provinces. As expected, women with less or no education and in the lowest wealth quintile are more likely to be below 145 cm.

Table 15.10 shows that there are large differentials across background characteristics in the percentage of women assessed as undernourished (BMI less than 18.5) or "thin" and overweight (BMI 25 or higher). Twenty percent of women were found to be underweight (BMI less than 18.5), while 10 percent were overweight or obese. Women in the age group of 15-19 are the thinnest compared with other age groups. More women have a BMI less than 18.5 in rural areas (21 percent) than in urban areas (17 percent). However, as expected the percentage of overweight or obese women is higher in urban areas (14 percent) than in rural areas (9 percent). Kampong Thom (25 percent), Prey Veng (27 percent), and Takeo (25 percent) have the highest percentage of undernourished women and Banteay Mean Chey has the lowest percentage (14 percent). The percentage of overweight or obese women in the highest wealth quintile is almost four times compared with the lowest quintile.

Compared with the 2000 CDHS the proportion of undernourished women in the reproductive age group has remained the same; however, the rate of overnutrition (BMI $\geq$ 25.0) has gone up by 4 percentage points (Figure 15.7).

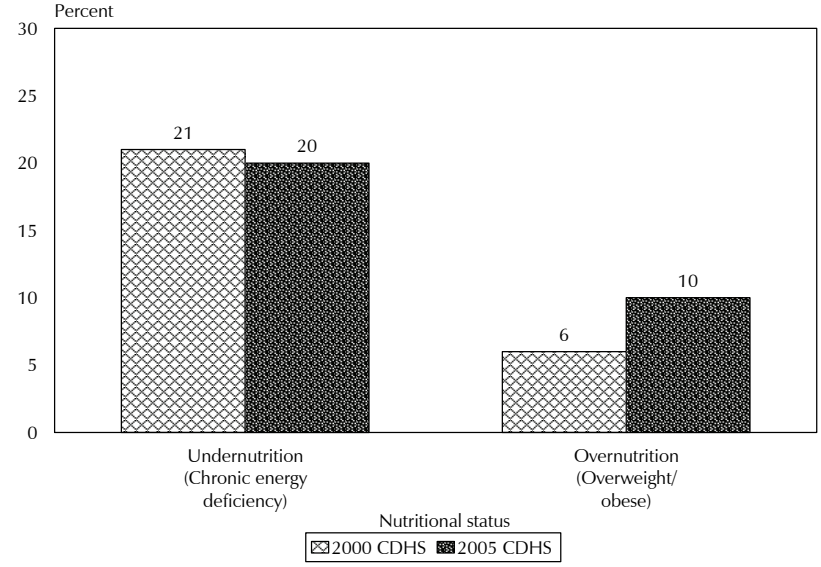
Table 15.10 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Cambodia 2005

	Height		Body Mass Index[1]								
			Mean	Normal	Thin			Overweight/obese			
Background characteristic	Percentage below 145 cm	Number of women	Body Mass Index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately and severely thin)	≥25.0 (total overweight/ obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of women
Age											
15-19	11.3	1,737	19.8	70.5	28.0	19.4	8.6	1.5	1.4	0.1	1,672
20-29	7.2	2,514	20.6	76.3	19.0	14.6	4.3	4.7	4.4	0.3	2,185
30-39	6.1	2,169	21.5	67.9	17.6	11.4	6.1	14.6	12.8	1.8	2,013
40-49	7.0	1,950	21.7	64.8	18.2	12.3	5.9	17.0	14.6	2.4	1,929
Residence											
Urban	6.4	1,463	21.5	69.1	17.3	13.2	4.0	13.6	11.1	2.6	1,398
Rural	8.0	6,907	20.8	70.3	21.0	14.5	6.5	8.7	7.9	0.9	6,401
Province											
Banteay Mean Chey	7.6	333	21.3	76.3	13.6	10.4	3.2	10.1	9.1	1.0	311
Kampong Cham	5.3	1,080	21.2	72.6	16.5	10.5	6.0	10.9	10.6	0.4	962
Kampong Chhnang	7.5	277	20.7	71.4	20.2	15.0	5.2	8.4	7.7	0.7	255
Kampong Speu	9.4	432	20.3	68.5	24.8	17.9	6.9	6.7	6.0	0.7	410
Kampong Thom	11.0	417	20.7	71.9	20.1	12.5	7.7	8.0	7.2	0.8	383
Kandal	7.8	772	20.9	68.0	20.7	14.7	6.0	11.3	10.1	1.2	740
Kratie	6.1	167	21.0	71.1	19.1	13.5	5.6	9.8	7.8	2.0	150
Phnom Penh	5.1	924	21.6	67.7	19.2	15.4	3.8	13.2	9.9	3.2	881
Prey Veng	8.8	721	20.3	66.6	26.5	16.4	10.0	6.9	6.2	0.7	693
Pursat	6.0	231	20.3	70.0	24.5	15.7	8.8	5.5	5.2	0.4	211
Siem Reap	9.5	576	20.8	73.2	19.2	15.0	4.2	7.7	6.8	0.9	528
Svay Rieng	6.6	340	20.6	71.0	22.0	14.8	7.2	7.0	6.4	0.6	313
Takeo	5.5	537	20.5	65.9	25.0	16.9	8.1	9.1	8.8	0.3	512
Otdar Mean Chey	11.6	84	20.6	74.5	20.0	12.2	7.8	5.5	4.8	0.7	76
Battambang/Krong Pailin	8.7	641	21.5	70.4	16.1	11.6	4.5	13.5	11.7	1.8	601
Kampot/Krong Kep	8.4	397	20.8	69.8	22.6	16.5	6.0	7.6	6.4	1.2	371
Krong Preah Sihanouk/ Kaoh Kong	7.5	193	21.7	73.8	13.5	9.9	3.6	12.7	10.1	2.6	183
Preah Vihear/Steung Treng	10.3	137	20.4	68.3	24.8	18.3	6.4	7.0	5.9	1.1	120
Mondol Kiri/Rattanak Kiri	23.1	112	20.5	73.2	21.3	16.4	4.9	5.6	5.6	0.0	99
Education											
No schooling	8.7	1,662	20.9	71.5	19.1	13.1	5.9	9.4	8.5	0.9	1,532
Primary	8.1	4,690	21.0	69.5	20.4	14.1	6.3	10.1	8.9	1.2	4,359
Secondary and higher	5.9	2,019	20.8	70.2	21.1	15.5	5.6	8.6	7.4	1.3	1,907
Wealth quintile											
Lowest	10.3	1,465	20.2	72.0	24.0	15.1	8.9	4.0	3.9	0.2	1,328
Second	8.6	1,550	20.4	72.9	22.5	15.4	7.1	4.6	4.0	0.6	1,422
Middle	8.2	1,659	20.6	71.1	22.8	16.7	6.1	6.1	5.5	0.6	1,551
Fourth	7.4	1,630	21.2	70.1	17.6	12.6	5.0	12.3	11.5	0.9	1,511
Highest	5.1	2,067	21.8	65.8	16.6	12.2	4.3	17.6	14.7	2.9	1,986
Total	7.7	8,370	20.9	70.1	20.3	14.3	6.1	9.6	8.4	1.2	7,799

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

Figure 15.7 **Trends in Nutritional Status among Women Age 15-49**



Note: Undernutrition BMI <18.5 and overnutrition BMI ≥25.0

15.11 Foods Consumed by Mothers

The quality and quantity of food that mothers consume influences their health and that of their children, especially the health of breastfeeding children. The 2005 CDHS included questions on the type of foods consumed by mothers of children under age three during the day and night preceding the interview.

Table 15.11 shows that the staple diet of mothers of young children in Cambodia consists of foods made from grains (99 percent), and meat, fish, shellfish, poultry, and eggs (98 percent). Three out of four women consume fruits and vegetables rich in vitamin A. Smaller proportions of mothers consume milk or other milk products (6 percent) and foods made from beans, peas, or nuts (13 percent). Only 11 percent of mothers drink tea or coffee and 31 percent consume foods made with oil, fat or butter or sugary foods.

Table 15.11 Foods consumed by mothers in the day or night preceding the interview

Among mothers age 15-49 with a child under age three years living with them, the percentage who consumed specific types of foods in the day or night preceding the interview, by background characteristics, Cambodia 2005

Background characteristic	Foods made from grains	Foods made from roots/ tubers	Foods made from beans, peas, or nuts	Meat/ fish/ shellfish/ poultry/ eggs	Milk/ milk products	Foods rich in vitamin A/ fruits/ vege-tables[1]	Other fruits/ vege-tables	Foods made with oil/ fat/ butter	Sugary foods	Tea/ coffee	Other liquids	Number of women
Age												
15-19	98.2	15.1	8.1	98.1	6.7	74.8	41.5	28.0	30.3	9.4	14.7	174
20-29	98.5	23.3	13.5	97.9	7.1	77.1	39.6	30.2	32.2	10.3	14.8	2,154
30-39	99.0	21.4	13.5	97.6	3.8	77.0	41.5	32.6	28.3	11.2	11.9	1,406
40-49	98.3	22.4	15.1	96.6	4.0	79.5	41.5	31.0	30.3	10.4	13.2	343
Residence												
Urban	97.3	21.2	11.3	97.1	9.4	84.6	54.8	38.9	37.3	18.4	20.2	582
Rural	98.8	22.4	13.7	97.8	5.1	76.0	38.1	29.7	29.6	9.2	12.6	3,495
Province												
Banteay Mean Chey	99.5	9.3	3.3	97.4	0.8	63.6	27.7	9.1	21.0	1.8	6.9	178
Kampong Cham	98.9	13.3	9.2	95.7	6.4	69.2	29.3	23.1	20.5	4.6	12.1	516
Kampong Chhnang	98.8	31.8	26.6	99.5	5.2	81.2	34.7	50.3	43.2	6.4	9.8	152
Kampong Speu	99.6	22.7	15.7	98.7	3.9	72.2	38.6	27.1	22.8	4.3	7.8	233
Kampong Thom	98.6	17.4	15.1	97.2	7.4	69.4	54.9	28.6	26.2	6.2	5.6	218
Kandal	99.0	21.6	40.1	98.4	10.8	88.8	64.7	42.8	52.5	31.8	31.4	365
Kratie	99.6	23.2	13.1	99.6	7.8	75.5	45.3	60.9	32.7	8.8	10.6	97
Phnom Penh	96.7	14.7	6.4	96.7	9.6	78.2	58.1	30.0	35.3	19.1	15.4	332
Prey Veng	99.4	25.1	8.0	100.0	2.3	72.3	40.2	32.0	17.1	12.6	6.7	316
Pursat	99.5	56.4	8.1	100.0	4.1	95.7	18.3	31.5	68.0	6.0	37.2	112
Siem Reap	96.1	27.9	13.3	98.4	6.4	82.9	42.9	23.6	37.1	10.1	15.9	344
Svay Rieng	98.2	21.3	9.3	97.2	4.2	73.7	20.0	12.8	17.7	4.6	2.1	130
Takeo	99.5	12.3	12.5	99.5	2.5	66.1	33.3	17.8	22.7	8.8	6.3	247
Otdar Mean Chey	99.5	12.2	3.2	93.1	1.7	69.8	15.5	0.9	16.8	3.3	1.5	51
Battambang/ Krong Pailin	98.6	19.3	10.8	98.2	5.2	86.5	59.1	76.7	39.5	5.4	10.9	287
Kampot/Krong Kep	98.7	44.4	6.3	99.5	2.2	90.2	23.0	18.3	33.8	4.7	23.3	196
Krong Preah Sihanouk/Kaoh Kong	98.5	38.9	20.8	96.7	14.0	87.1	46.7	51.3	37.3	32.3	36.2	104
Preah Vihear/ Steung Treng	99.6	18.7	5.1	96.8	1.3	63.2	13.4	7.1	16.6	6.8	5.5	117
Mondol Kiri/ Rattanak Kiri	98.7	31.6	7.6	84.8	4.0	88.0	31.3	20.0	8.8	5.8	3.2	80
Education												
No schooling	98.2	24.4	9.7	96.4	2.7	73.8	32.6	26.9	25.5	5.4	9.6	929
Primary	98.8	21.5	13.3	98.0	4.5	77.3	39.1	31.0	31.9	9.8	12.9	2,420
Secondary and higher	98.6	21.9	18.3	98.4	13.5	81.2	55.2	36.6	33.1	19.5	21.3	728
Wealth quintile												
Lowest	98.5	21.6	9.9	97.4	2.7	72.1	30.4	25.8	25.3	4.9	5.8	1,063
Second	98.9	21.5	12.0	97.5	2.5	75.1	32.2	27.6	27.4	5.2	10.9	891
Middle	99.3	25.3	13.9	97.8	4.0	76.7	40.2	31.2	32.4	7.0	14.2	734
Fourth	98.9	21.6	18.1	98.6	5.7	81.3	46.2	35.8	33.0	15.6	17.7	697
Highest	97.5	21.8	15.3	97.3	16.1	84.0	61.3	38.6	38.9	24.8	24.6	693
Total	98.6	22.3	13.4	97.7	5.7	77.2	40.5	31.0	30.7	10.6	13.7	4,078

Note: Foods consumed in the past 24-hour period (yesterday and the past night)
[1] Includes pumpkin, orange or yellow squash, carrots, sweet potatoes, green leafy vegetables, mangoes, and papayas

15.12 Prevalence of Anemia in Women

Table 15.12 shows the prevalence of anemia among women age 15-49. With 47 percent of women having anemia, it is a critical public health problem in Cambodia with 35 percent mildly anemic, 10 percent moderately anemic and just 1 percent severely anemic. Women with high parity, with little or no education, are pregnant, and living in poor households has higher prevalence of anemia. Anemia is also higher among rural than urban women. Women residing in Phnom Penh have the lowest prevalence of anemia (29 percent) compared with the other provinces.

Table 15.12 Prevalence of anemia in women

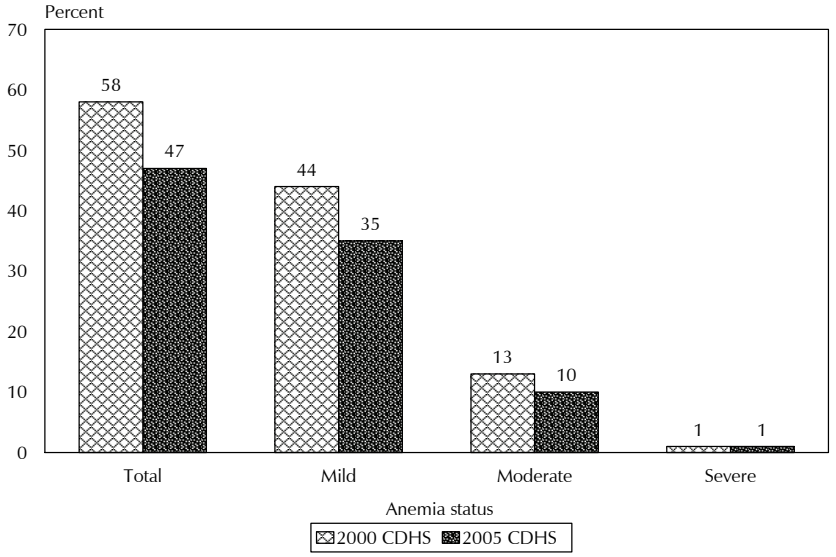
Percentage of women age 15-49 with anemia, by background characteristics, Cambodia 2005

Background characteristic	Anemia status by hemoglobin level: Mild (Not pregnant: 10.0-11.9 g/dl; Pregnant: 10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl; 7.0-9.9 g/dl)	Severe (<7.0 g/dl; <7.0 g/dl)	Any anemia (<12.0 g/dl; <11.0 g/dl)	Number of women
Age[1]					
15-19	36.6	8.5	1.3	46.4	1,691
20-29	33.3	10.1	1.1	44.5	2,478
30-39	34.2	9.7	0.7	44.6	2,134
40-49	38.2	12.5	1.0	51.7	1,915
Number of children ever born[2]					
0	34.5	8.7	1.3	44.5	2,998
1	36.9	9.9	0.9	47.7	953
2-3	34.0	10.4	0.6	45.1	1,905
4-5	35.4	10.6	0.9	46.9	1,339
6+	38.9	14.2	1.0	54.1	1,024
Maternity status[2]					
Pregnant	23.6	30.1	3.4	57.1	486
Breastfeeding	41.3	11.5	0.8	53.6	1,325
Neither	35.0	8.5	0.9	44.3	6,408
Using IUD[2]					
Yes	25.5	9.5	0.0	35.0	73
No	35.4	10.2	1.0	46.7	8,145
Mother's smoking status[2]					
Smokes cigarettes/tobacco	36.1	17.5	1.0	54.5	963
Does not smoke	35.3	9.3	1.0	45.5	7,255
Residence					
Urban	29.7	7.1	0.9	37.7	1,406
Rural	36.5	10.9	1.0	48.4	6,812
Province					
Banteay Mean Chey	40.6	14.7	1.8	57.1	325
Kampong Cham	29.6	10.7	0.7	41.0	1,070
Kampong Chhnang	44.9	10.4	0.6	55.9	276
Kampong Speu	42.5	13.4	2.0	58.0	429
Kampong Thom	41.6	14.8	1.0	57.4	412
Kandal	36.0	9.1	0.8	45.9	763
Kratie	29.6	8.1	0.8	38.6	167
Phnom Penh	24.5	3.9	0.6	29.1	885
Prey Veng	29.3	10.0	1.0	40.3	708
Pursat	37.8	13.0	1.6	52.4	224
Siem Reap	41.5	12.0	2.4	55.9	563
Svay Rieng	39.1	9.9	0.3	49.4	335
Takeo	37.9	8.2	0.7	46.8	534
Otdar Mean Chey	39.1	16.1	2.0	57.1	82
Battambang/Krong Pailin	41.0	11.3	0.5	52.8	637
Kampot/Krong Kep	34.4	6.7	1.2	42.3	384
Krong Preah Sihanouk/ Kaoh Kong	36.4	9.5	0.3	46.3	182
Preah Vihear/Steung Treng	41.3	19.3	2.0	62.6	134
Mondol Kiri/Rattanak Kiri	28.7	14.3	0.4	43.4	110
Education[1]					
No schooling	36.4	15.0	1.5	52.9	1,636
Primary	36.3	9.9	0.9	47.2	4,622
Secondary and higher	32.2	6.9	0.8	39.9	1,960
Wealth quintile					
Lowest	37.0	17.1	1.4	55.5	1,452
Second	37.9	11.7	1.2	50.8	1,540
Middle	37.1	9.9	1.3	48.3	1,639
Fourth	38.8	7.9	0.9	47.5	1,599
Highest	28.0	6.2	0.4	34.7	1,988
Total	35.4	10.2	1.0	46.6	8,219

Note: Table is based on women who stayed in the household the night before the interview.
[1] For women who were not interviewed, information is taken from the Household Questionnaire
[2] Excludes women who were not interviewed

Figure 15.8 indicates compared with 2000 CDHS the prevalence of total anemia and mild anemia has gone down by nine percentage points in 2005 CDHS. However, there has been little or no change in the rates of moderate and severe anemia.

Figure 15.8 **Trends in Anemia Status among Women Age 15-49**



15.13 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for both women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects mother and infant against anemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anemia. Anemia also results in an increased risk of premature delivery and low birth weight. Finally, iodine deficiency is also related to a number of adverse pregnancy outcomes.

Table 15.13 includes a number of measures that are useful in assessing the extent to which women are receiving adequate intake of vitamin A, iron during pregnancy, and iodine. The first indicators focused on the percentages of women with children under age three who reported that they consumed foods rich in vitamin A and iron during the 24-hour period prior to the DHS. The results indicate that 99 percent mothers of young children consumed vitamin A-rich fruits and vegetables and 98 percent mothers consumed iron-rich foods (i.e., meat, poultry, fish and eggs) in the 24 hours preceding the survey. In general the consumption of vitamin A and iron rich foods is high in Cambodian women with children and it does not vary much by background characteristics.

Table 15.13 also looks at the extent to which women receive vitamin A supplements following delivery. Only 27 percent of women reported that they had received a capsule in the two-month period following the delivery of their last-born child. With regard to iron supplementation during pregnancy, more than half of women who gave birth during the five-year period before the 2005 CDHS reported that they had taken iron tablets or syrup during the pregnancy preceding their last live birth. Among women reporting that they took supplements, the majority said that they took the supplements for less than 60 days. Percentage of women who took iron supplements varies by province and educational status of women.

As was the case among children, more than seven in ten women live in households in which the salt used in cooking was tested and found to be adequately iodized.

Table 15.13 Micronutrient intake among mothers

Among women age 15-49 with a child under three years living with them, the percentage who consumed foods rich in vitamin A and iron in the 24 hours preceding the survey; the percentage of women with a child born in the past five years who received a vitamin A dose in the first two months after the birth of the last child; the percentage of mothers who during the pregnancy of the last child born in the five years prior to the survey suffered from night blindness, the percentage who took iron tablets or syrup for specific numbers of days, and the percentage who took deworming medication; and the percentage of women with a child born in the past five years who live in households using iodized salt, by background characteristics, Cambodia 2005

	Consumption of foods rich in vitamin A and iron in the 24 hours preceding the survey among women with a child under three years				For the last child born in the past 5 years										
					Percentage of women who suffered night blindness during pregnancy		Number of days women took iron tablets or syrup during pregnancy								
Background characteristic	Percentage consumed foods rich in vitamin A[1]	Percentage consumed foods rich in iron[2]	Number of women with a child under 3 years	Percentage of women who received vitamin A dose post-partum[3]	Reported	Adjusted[4]	None	<60	60-89	90+	Don't know/ missing	Percentage of women who took deworming medication during pregnancy[5]	Number of women with a child born in the past 5 years	Percentage of women in households using iodized salt[6]	Number of women in households with salt tested
Mother's age															
15-19	98.8	98.1	174	25.9	5.9	1.8	34.0	33.5	10.9	19.9	1.6	14.4	186	75.1	3,574
20-29	98.4	97.9	2,154	29.3	6.3	2.0	31.3	32.2	9.7	20.6	6.2	11.8	2,783	75.3	5,045
30-39	98.5	97.6	1,406	26.4	8.8	2.1	39.8	29.8	8.5	15.9	6.0	9.7	2,180	74.1	4,256
40-49	98.6	96.6	343	22.1	13.1	3.9	49.9	27.7	7.6	10.6	4.1	8.1	715	73.1	3,768
Residence															
Urban	97.3	97.1	582	23.5	3.6	1.3	28.8	30.7	11.1	17.9	11.5	14.3	827	86.6	2,927
Rural	98.7	97.8	3,495	27.9	8.7	2.4	38.1	30.9	8.7	17.6	4.8	10.1	5,039	71.9	13,716
Province															
Banteay Mean Chey	99.5	97.4	178	25.1	9.7	1.8	38.1	20.9	7.9	22.9	10.2	3.1	256	69.9	643
Kampong Cham	96.7	95.7	516	25.7	7.6	3.8	45.5	35.3	4.0	6.2	9.0	4.1	738	83.9	2,096
Kampong Chhnang	99.5	99.5	152	30.6	9.9	2.8	23.4	47.7	7.9	16.6	4.3	6.8	218	84.0	552
Kampong Speu	100.0	98.7	233	22.4	7.0	2.0	46.1	20.6	10.7	16.0	6.7	16.5	335	73.6	855
Kampong Thom	98.0	97.2	218	33.5	19.6	4.7	43.0	45.3	3.4	6.5	1.8	8.2	300	81.2	793
Kandal	99.0	98.4	365	30.4	7.6	2.1	39.5	43.1	4.1	11.9	1.3	12.6	531	70.2	1,589
Kratie	99.6	99.6	97	28.2	4.7	0.9	55.6	19.3	5.5	12.5	7.0	13.5	137	91.5	322
Phnom Penh	96.7	96.7	332	6.4	1.4	0.7	26.4	27.8	10.9	16.0	19.0	13.3	476	92.1	1,870
Prey Veng	100.0	100.0	316	46.4	12.8	4.0	31.8	21.5	18.3	28.1	0.3	13.2	485	48.0	1,377
Pursat	100.0	100.0	112	63.3	6.8	1.2	12.5	21.9	12.6	53.0	0.0	16.8	167	90.0	477
Siem Reap	98.4	98.4	344	31.8	8.6	1.6	39.1	29.5	12.6	18.4	0.5	3.9	472	82.1	1,195
Svay Rieng	100.0	97.2	130	19.9	3.8	2.6	19.1	22.0	19.6	39.3	0.0	9.6	202	17.5	654
Takeo	99.5	99.5	247	27.1	0.5	0.5	20.2	34.9	11.6	18.9	14.4	7.1	372	75.3	1,094
Otdar Mean Chey	93.9	93.1	51	17.3	8.2	0.9	49.8	26.8	7.4	15.6	0.3	15.3	76	83.4	177
Battambang/ Krong Pailin	98.6	98.2	287	28.7	10.9	0.0	23.4	47.0	7.7	21.9	0.0	16.4	404	91.7	1,245
Kampot/ Krong Kep	99.5	99.5	196	21.7	5.4	2.6	40.2	20.4	11.0	26.7	1.7	23.7	290	38.3	829
Krong Preah Sihanouk/ Kaoh Kong	98.5	96.7	104	19.6	3.6	1.1	53.5	11.5	4.8	10.0	20.2	20.3	146	83.6	373
Preah Vihear/ Steung Treng	96.8	96.8	117	9.3	16.9	4.8	63.6	24.0	3.9	5.2	3.3	4.1	153	85.2	298
Mondol Kiri/ Rattanak Kiri	96.0	84.8	80	14.9	9.8	2.2	77.8	19.3	0.3	1.5	1.2	3.7	107	65.0	204
Education															
No schooling	98.3	96.4	929	22.0	12.3	3.3	52.3	25.2	7.2	12.1	3.2	6.1	1,356	71.9	3,207
Primary	98.6	98.0	2,420	27.9	8.0	2.3	35.6	31.9	9.6	16.9	6.0	10.7	3,482	72.5	9,302
Secondary and higher	98.4	98.4	728	32.2	2.6	0.7	20.6	34.5	9.3	27.4	8.2	16.5	1,028	80.8	4,135
Wealth quintile															
Lowest	98.6	97.4	1,063	24.2	11.9	3.9	49.2	26.6	7.8	14.0	2.4	5.7	1,477	66.8	2,961
Second	98.7	97.5	891	27.5	10.1	2.8	40.3	27.5	8.7	19.4	4.0	8.8	1,320	65.9	3,125
Middle	98.9	97.8	734	32.0	7.5	1.8	36.1	31.9	9.7	17.0	5.3	10.8	1,077	71.3	3,226
Fourth	98.9	98.6	697	29.3	5.4	1.2	29.3	36.5	8.9	18.9	6.4	15.1	1,003	76.4	3,280
Highest	97.3	97.3	693	24.2	2.8	0.8	22.0	34.7	10.7	20.0	12.7	15.9	988	87.7	4,052
Total	98.5	97.7	4,078	27.3	8.0	2.2	36.8	30.8	9.0	17.6	5.7	10.7	5,865	74.5	16,644

[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, orange or yellow squash, carrots, sweet potatoes, mango, and papaya
[2] Includes meat (and organ meat), fish, poultry, eggs
[3] In the first two months after delivery
[4] Women who reported night blindness but did not report difficulty with vision during the day
[5] Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis
[6] Excludes women in households where salt was not tested

MALARIA 16

16.1 INTRODUCTION

Malaria is a serious public health problem in Cambodia. In 2005, there were over 60,000 reported malaria cases. (Department of Planning and Health Information, 2005). The majority of malaria cases are caused by the *plasmodium falciparum* species of the malaria parasite, and a high level of drug resistance has been documented. However, people are not at equal risk of contracting malaria. Some areas of the country are virtually malaria-free, while other areas are malaria endemic. Thus, the country is divided into malaria-risk zones, ranging from low to high risk, and some areas of the country are not in malaria zones at all. The CDHS collected malaria data from all households included in the survey, including areas of both low and high risk of malaria and areas both within and outside the malaria risk zones.

Cambodia promotes the use of insecticide-treated nets (ITNs) to prevent malaria infection. With the assistance of the Global Fund for AIDS, Tuberculosis and Malaria, long-lasting insecticide treated nets (LLINs) are being distributed in remote rural areas free of charge and distributed in cities and towns through social marketing (WHO and UNICEF, 2005). In addition, hammock nets and retreatment tablets are socially marketed through the private sector to mobile workers in the forest areas. People living in forested areas are at highest risk of contracting malaria.

16.2 MALARIA PREVENTION

Ownership of Mosquito Nets

The use of ITNs is a major component of the malaria prevention strategy in Cambodia. During the CDHS 2005 survey, information was collected on the ownership and use of mosquito nets, both treated and untreated.

Coverage of mosquito nets is high in Cambodia, as shown in Table 16.1. Nationwide, 96 percent of households own at least one mosquito net. This high coverage is an increase since 2000 when 82 percent of households reported having a mosquito net (CDHS, 2000). Two-thirds of households own more than one. The vast majority of these nets are not treated with insecticide. Only 10 percent of households own a net that is pretreated or a nonpretreated net that has been treated with insecticide at any time. One in 20 households owns an insecticide-treated mosquito net, that is, a factory-treated net that does not require any further treatment, a pretreated net bought within the past 12 months, or a net that has been soaked in insecticide in the past 12 months.

The distribution of ever-treated nets and ITNs varies greatly by province. The percentage of households owning an ever-treated net exceeds 50 percent in Kratie, Otdar Mean Chey, Preah Vihear/Steung Treng, and Mondol Kiri/Rattanak Kiri. These same provinces have the highest ownership of ITNs as well. Nearly half of households in Preah Vihear/Steung Treng own at least one ITN.

Ownership of at least one mosquito net increases slightly with the wealth quintile of the household. Ownership of more than one mosquito net rises steadily with wealth quintile from 44 percent in the lowest wealth quintile to 86 percent in the highest wealth quintile. However, the percentage of households that own at least one ever-treated net or own an ITN declines with increasing wealth quintile and is highest among the poorest households. For example, among households in the highest wealth quintile, only 3 percent own at least one ever-treated net as compared with 18 percent of households in the lowest wealth quintile.

Table 16.1 Household possession of mosquito nets

Percentage of households with at least one and more than one mosquito net (treated or untreated), ever-treated mosquito net, and insecticide-treated net (ITN), and the average number of nets of each type per household, by background characteristics, Cambodia 2005

	Any type of mosquito net			Ever-treated mosquito net[1]			Insecticide-treated mosquito net[2] (ITNs)			
Background characteristic	Percentage with at least one	Percentage with more than one	Average number of nets per household	Percentage with at least one	Percentage with more than one	Average number of ever-treated nets per household	Percentage with at least one	Percentage with more than one	Average number of ITNs per household	Number of households
Residence										
Urban	95.0	76.5	2.7	7.0	4.0	0.1	2.3	1.2	0.0	2,066
Rural	95.9	65.7	2.2	10.3	6.2	0.2	4.9	2.8	0.1	12,177
Province										
Banteay Mean Chey	98.2	65.5	2.1	12.2	7.1	0.2	4.9	1.6	0.1	595
Kampong Cham	95.8	62.0	2.1	6.9	4.2	0.1	4.7	3.1	0.1	2,012
Kampong Chhnang	97.4	61.5	2.1	12.1	6.4	0.2	3.5	1.8	0.1	544
Kampong Speu	96.5	69.6	2.2	5.7	3.5	0.1	0.5	0.0	0.0	775
Kampong Thom	93.5	59.0	1.9	13.4	8.3	0.2	6.4	3.8	0.1	689
Kandal	99.4	80.8	2.7	0.7	0.4	0.0	0.4	0.0	0.0	1,384
Kratie	98.4	71.5	2.2	51.3	32.7	1.1	18.8	11.1	0.4	289
Phnom Penh	95.9	81.1	2.8	1.0	0.4	0.0	0.2	0.0	0.0	1,180
Prey Veng	96.9	53.4	1.9	0.4	0.0	0.0	0.0	0.0	0.0	1,278
Pursat	95.3	62.3	2.1	3.5	1.9	0.1	0.3	0.0	0.0	430
Siem Reap	80.8	46.9	1.7	13.2	7.6	0.2	2.8	1.6	0.1	927
Svay Rieng	95.9	61.9	2.0	0.4	0.2	0.0	0.0	0.0	0.0	619
Takeo	99.1	76.8	2.4	1.2	0.9	0.0	0.3	0.2	0.0	991
Otdar Mean Chey	96.3	61.5	1.9	59.8	36.6	1.1	30.4	19.3	0.6	146
Battambang/Krong Pailin	99.6	80.9	2.8	10.6	5.2	0.2	6.0	2.6	0.1	891
Kampot/Krong Kep	93.3	65.5	2.1	9.3	5.2	0.2	3.6	1.9	0.1	724
Krong Preah Sihanouk/ Kaoh Kong	95.9	73.1	2.3	25.2	12.7	0.4	11.4	5.4	0.2	320
Preah Vihear/Steung Treng	97.2	76.3	2.5	76.4	51.7	1.7	48.4	27.9	1.0	262
Mondol Kiri/Rattanak Kiri	93.9	69.1	2.2	67.3	48.7	1.5	38.9	26.0	0.8	186
Wealth quintile										
Lowest	91.1	43.9	1.5	18.1	9.6	0.3	8.6	4.5	0.1	2,915
Second	94.6	55.1	1.8	11.8	7.3	0.2	6.0	3.4	0.1	2,930
Middle	97.9	71.5	2.2	9.4	6.6	0.2	4.2	2.7	0.1	2,904
Fourth	99.0	82.2	2.7	5.9	3.7	0.1	2.2	1.2	0.0	2,755
Highest	96.5	85.6	3.1	3.0	2.0	0.1	1.1	0.7	0.0	2,739
Total	95.8	67.2	2.2	9.8	5.9	0.2	4.5	2.5	0.1	14,243

[1] An ever-treated net is a pretreated net or a non-pretreated net which has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is 1) a factory-treated net that does not require any further treatment, or 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

Use of Mosquito Nets by Children

Children under five years of age are especially vulnerable to malaria. Table 16.2 presents information on the percentage of children under age five who slept under a mosquito net (treated or untreated) the night before the survey. Overall, nearly nine in ten children (88 percent) slept under a net the night prior to the survey, while only 9 percent slept under an ever-treated net and 4 percent slept under an ITN the night prior to the survey.

Table 16.2 Use of mosquito nets by children

Percentage of children under five years of age who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, or an insecticide-treated net (ITN) the night before the interview, by background characteristics, Cambodia 2005

Background characteristic	Percentage of children who slept under any net the preceding night	Percentage of children who slept under an ever-treated net the preceding night[1]	Percentage of children who slept under an ITN the preceding night[2]	Number of children
Age in months				
<12	88.1	9.6	4.4	1,508
12-23	89.3	8.4	3.9	1,512
24-35	88.0	10.1	4.8	1,392
36-47	87.0	9.6	4.3	1,399
48-59	88.9	8.9	3.3	1,367
Sex				
Male	88.2	9.6	4.2	3,562
Female	88.3	9.0	4.2	3,616
Residence				
Urban	81.7	4.8	1.7	987
Rural	89.3	10.0	4.6	6,191
Province				
Banteay Mean Chey	92.6	12.5	5.0	304
Kampong Cham	90.1	4.7	2.5	859
Kampong Chhnang	89.1	11.2	3.1	293
Kampong Speu	91.2	3.0	0.4	432
Kampong Thom	83.8	12.0	5.1	366
Kandal	98.6	0.9	0.4	630
Kratie	85.6	38.5	15.9	179
Phnom Penh	78.3	0.0	0.0	560
Prey Veng	94.5	0.0	0.0	570
Pursat	91.7	2.7	0.0	206
Siem Reap	67.9	11.2	1.1	617
Svay Rieng	92.5	1.2	0.0	235
Takeo	94.2	0.4	0.1	461
Otdar Mean Chey	91.6	50.3	28.1	90
Battambang/Krong Pailin	93.3	7.2	3.9	493
Kampot/Krong Kep	87.5	6.4	3.6	357
Krong Preah Sihanouk/ Kaoh Kong	86.1	19.8	11.0	186
Preah Vihear/Steung Treng	85.5	61.7	37.2	196
Mondol Kiri/Rattanak Kiri	85.6	57.8	31.3	144
Wealth quintile				
Lowest	82.1	16.2	7.6	1,930
Second	87.7	10.4	4.6	1,626
Middle	93.9	8.8	4.0	1,273
Fourth	96.1	4.3	1.4	1,173
Highest	85.2	1.9	0.9	1,176
Total	88.2	9.3	4.2	7,178

[1] An ever-treated net is a pretreated net or a non-pretreated net which has subsequently been soaked with insecticide at any time.

[2] An insecticide-treated net (ITN) is 1) a factory-treated net that does not require any further treatment, or 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

Little variation exists in the use of nets by age or sex of children. Children in rural areas are more likely to sleep under a mosquito net than urban children. The data for use of nets show similar regional trends to net ownership. Six in ten children in Preah Vihear/Steung Treng and Mondol Kiri/Rattanak Kiri slept under an ever-treated net on the night before the interview, as did half of children in Otdar Mean Chey. With respect to ITNs, the provinces with the highest use are, once again, Preah Vihear/Steung Treng, Mondol Kiri/Rattanak Kiri, and Otdar Mean Chey (34 percent, 31 percent, and 28 percent, respectively).

Use of Mosquito Nets by Women

As in the case of children under five years of age, pregnant women are especially susceptible to malaria. Table 16.3 shows the percentage of all women and pregnant women who slept under any mosquito net and the proportion who slept under an ever-treated net or ITN the night prior to the interview, by background characteristics. Generally, 85 percent of all women and 86 percent of pregnant women slept under a mosquito net on the night before the interview. In contrast, only 3 percent of all women and 4 percent of pregnant women slept under an ITN. There is little difference in the use of nets between pregnant and non-pregnant women.

Data on use of nets by women show trends in regional variation similar to those found in the data on net ownership and use of nets by children under age five. Women in rural areas are more likely to have slept under a net the night before the interview than are urban women. Women in Preah Vihear/Steung Treng, Mondol Kiri/Rattanak Kiri, and Otdar Mean Chey are once again most likely to have slept under an ever-treated net or an ITN on the night before the interview. In Preah Vihear/Steung Treng and Otdar Mean Chey, pregnant women are much more likely than all women age 15-49 to have slept under an ever-treated net or an ITN.

The data in Table 16.3 are consistent with the trend of greater ever-treated net and ITN ownership and use among households in the lower wealth quintiles. Eighteen percent of pregnant women in the lowest wealth quintile slept under an ever-treated net the night before the interview, and 10 percent of women in this same group slept under an ITN. This compares to less than 1 percent of women in the highest wealth quintile sleeping under ever-treated nets or ITNs during the night before the interview.

Table 16.3 Use of mosquito nets by women

Percentage of all women age 15-49 and pregnant women age 15-49 who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, or an insecticide-treated net (ITN) the night before the interview, by background characteristics, Cambodia 2005

	Percentage of all women age 15-49 who:				Percentage of pregnant women age 15-49 who:			
Background characteristic	Slept under any net the preceding night	Slept under an ever-treated net the preceding night[1]	Slept under an ITN[2] the preceding night	Number of women	Slept under any net the preceding night	Slept under an ever-treated net the preceding night[1]	Slept under an ITN[2] the preceding night	Number of pregnant women
Residence								
Urban	75.6	3.6	1.2	2,950	82.0	4.9	1.7	124
Rural	87.1	7.6	3.4	13,849	86.5	9.0	4.5	868
Province								
Banteay Mean Chey	91.9	10.1	3.4	635	(97.2)	(15.9)	(5.2)	37
Kampong Cham	85.5	5.5	3.8	2,077	83.7	1.7	1.7	174
Kampong Chhnang	87.6	7.7	2.4	565	(88.2)	(3.9)	(1.3)	31
Kampong Speu	88.8	4.1	0.5	880	94.1	5.5	0.0	53
Kampong Thom	78.9	9.3	4.3	797	74.7	7.7	4.5	47
Kandal	96.4	0.4	0.1	1,603	(98.5)	(0.0)	(0.0)	77
Kratie	81.9	34.8	11.9	336	83.0	35.9	16.3	25
Phnom Penh	72.6	0.4	0.0	1,888	(77.5)	(0.0)	(0.0)	78
Prey Veng	90.7	0.3	0.0	1,406	(89.9)	(0.0)	(0.0)	69
Pursat	90.9	2.3	0.1	483	(97.5)	(3.1)	(0.0)	29
Siem Reap	63.0	7.9	1.2	1,209	65.5	13.2	2.6	85
Svay Rieng	90.1	0.4	0.0	662	92.7	0.0	0.0	43
Takeo	94.2	1.0	0.1	1,110	(100.0)	(0.0)	(0.0)	46
Otdar Mean Chey	91.3	50.6	24.2	178	94.3	57.8	35.0	11
Battambang/Krong Pailin	93.6	6.5	3.4	1,244	92.6	10.3	5.4	68
Kampot/Krong Kep	78.8	6.0	2.5	829	78.0	2.1	2.1	49
Krong Preah Sihanouk/ Kaoh Kong	80.7	15.5	7.3	379	(96.5)	(24.7)	(13.5)	20
Preah Vihear/Steung Treng	83.5	54.4	31.4	304	78.6	59.0	40.3	29
Mondol Kiri/Rattanak Kiri	84.3	57.5	30.6	214	76.4	46.4	21.4	22
Education								
No schooling	80.0	11.4	5.0	3,114	76.9	14.7	7.0	235
Primary	86.9	7.4	3.3	9,338	89.4	8.2	4.1	558
Secondary and higher	84.9	2.6	1.0	4,348	86.8	1.9	0.8	200
Wealth quintile								
Lowest	78.4	13.5	5.9	3,021	80.1	17.8	9.6	240
Second	83.9	9.8	4.9	3,165	83.4	8.2	2.3	228
Middle	89.0	6.9	3.1	3,244	88.4	8.7	4.6	184
Fourth	93.8	4.4	1.5	3,302	97.0	3.2	2.1	200
Highest	80.8	1.6	0.6	4,067	80.9	0.1	0.0	139
Total	85.1	6.9	3.0	16,799	85.9	8.5	4.1	992

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] An ever-treated net is a pretreated net or a non-pretreated net which has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is 1) a factory-treated net that does not require any further treatment, or 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

16.3 MALARIA DIAGNOSIS AND TREATMENT

Treatment of Malaria in Children

Malaria is not as prominent as acute respiratory infection (ARI) or diarrhea among children under age five in Cambodia. However, it is still the third leading cause of outpatient visits and the fourth leading cause of inpatient visits among children under age five (Department of Planning and Health Information, 2005). Treatment soon after the onset of fever, preferably within 24 hours, improves health outcomes among infected individuals.

Table 16.4 presents data on the percentage of children under age five with fever who received antimalarial drugs. Roughly one-third of children under the age of five years (35 percent) experienced fever in the two weeks preceding the survey, but treatment with antimalarial drugs was extremely low. Less than 1 percent of children with fever took any antimalarials. Although it is very difficult to analyze variation by background characteristics with such low usage of antimalarials, one may note that children with fever in Kratie and Krong Preah Sihanouk/Kaoh Kong are slightly more likely than children in other provinces to receive antimalarial drugs (3 percent).

Table 16.4 Prevalence and prompt treatment of children with fever

Percentage of children under age five with fever in the two weeks preceding the survey, and among children with fever, the percentage who took antimalarial drugs, by background characteristics, Cambodia 2005

	Among children under age five:		Among children under age five with fever:	
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who took antimalarial drugs	Number of children
Age in months				
<12	37.9	1,516	0.2	575
12-23	42.4	1,517	0.2	643
24-35	35.9	1,418	0.3	510
36-47	31.8	1,430	0.4	455
48-59	28.3	1,389	0.1	393
Residence				
Urban	31.5	1,038	1.3	327
Rural	36.1	6,233	0.1	2,249
Province				
Banteay Mean Chey	35.5	316	0.0	112
Kampong Cham	47.3	880	0.0	417
Kampong Chhnang	38.6	293	0.0	113
Kampong Speu	37.7	433	0.0	163
Kampong Thom	53.9	369	0.0	199
Kandal	32.0	635	0.0	203
Kratie	42.3	178	3.3	75
Phnom Penh	34.0	598	0.0	204
Prey Veng	34.8	562	0.0	195
Pursat	33.1	205	0.0	68
Siem Reap	20.8	626	0.0	130
Svay Rieng	22.5	236	0.0	53
Takeo	25.8	460	0.0	119
Otdar Mean Chey	46.9	92	0.3	43
Battambang/Krong Pailin	47.4	492	0.5	233
Kampot/Krong Kep	20.0	363	1.0	73
Krong Preah Sihanouk/ Kaoh Kong	11.5	191	(2.6)	22
Preah Vihear/Steung Treng	53.1	194	1.3	103
Mondol Kiri/Rattanak Kiri	34.5	147	0.0	51
Mother's education				
No schooling	34.5	1,730	0.2	596
Primary	36.6	4,288	0.2	1,568
Secondary and higher	32.9	1,253	0.3	412
Wealth quintile				
Lowest	39.3	1,945	0.3	764
Second	36.1	1,646	0.1	595
Middle	37.4	1,276	0.1	477
Fourth	30.9	1,176	0.6	364
Highest	30.7	1,228	0.2	377
Total	35.4	7,271	0.2	2,576

Note: Figures in parentheses are based on 25-49 unweighted cases.

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

17

This chapter presents current levels of HIV/AIDS knowledge, attitudes, and related behaviors for the general adult population. The chapter then focuses on HIV/AIDS knowledge and patterns of sexual activity among young people. The findings in this chapter will assist the AIDS control program in Cambodia to identify particular groups of people most in need of information and services and most vulnerable to the risk of HIV infection.

17.1 KNOWLEDGE OF HIV/AIDS AND OF TRANSMISSION AND PREVENTION METHODS

17.1.1 Awareness of AIDS

Ninety-nine percent of women and men age 15-49 have heard of AIDS (Table 17.1). The level of awareness of AIDS among women is lowest in Mondol Kiri/Rattanak Kiri: only 73 percent of women know about AIDS. Among men, those living in Pursat are the least likely to know about AIDS (88 percent). Knowledge of AIDS exceeds 95 percent among women and men in all age groups, marital statuses, education levels, wealth quintiles, and by urban and rural residence.

17.1.2 HIV Prevention Methods

HIV/AIDS prevention programs focus their messages and efforts on three important aspects of behavior: delaying sexual debut in young persons (abstinence), limiting the number of sexual partners or staying faithful to one partner, and use of condoms (the ABC message). To ascertain whether programs have effectively communicated these messages, CDHS respondents were prompted with specific questions about whether it is possible to reduce the chances of getting the AIDS virus by having just one faithful sexual partner, using a condom at every sexual encounter, and abstaining from sex.

Table 17.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS by background characteristics, Cambodia 2005

Background characteristic	Women: Has heard of AIDS	Women: Number of women	Men: Has heard of AIDS	Men: Number of men
Age				
15-24	98.3	6,646	98.7	2,884
15-19	98.2	3,601	98.3	1,662
20-24	98.3	3,045	99.3	1,222
25-29	98.7	2,051	99.2	830
30-39	98.6	4,311	99.6	1,669
40-49	98.9	3,815	99.5	1,348
Marital status				
Never married	98.0	5,352	98.5	2,606
Ever had sex	*	10	99.5	384
Never had sex	98.0	5,341	98.4	2,222
Married/living together	99.0	10,087	99.5	3,973
Divorced/separated/ widowed	97.8	1,384	99.9	152
Residence				
Urban	99.5	2,973	99.3	1,133
Rural	98.3	13,850	99.1	5,598
Province				
Banteay Mean Chey	98.2	650	98.0	253
Kampong Cham	95.9	2,116	100.0	870
Kampong Chhnang	99.8	556	99.7	234
Kampong Speu	99.6	870	99.4	348
Kampong Thom	98.9	799	99.3	331
Kandal	99.9	1,612	99.5	682
Kratie	95.5	331	99.0	128
Phnom Penh	100.0	1,896	99.6	737
Prey Veng	99.3	1,395	100.0	482
Pursat	96.3	480	87.8	202
Siem Reap	100.0	1,200	99.4	461
Svay Rieng	100.0	658	100.0	281
Takeo	99.9	1,102	100.0	491
Otdar Mean Chey	100.0	177	99.9	69
Battambang/Krong Pailin	100.0	1,247	99.7	456
Kampot/Krong Kep	99.9	839	99.4	321
Krong Preah Sihanouk/ Kaoh Kong	98.9	379	100.0	160
Preah Vihear/ Steung Treng	92.3	301	97.1	116
Mondol Kiri/Rattanak Kiri	73.1	215	96.2	110
Education				
No schooling	95.5	3,270	96.5	606
Primary	99.0	9,389	99.1	3,261
Secondary and higher	100.0	4,165	99.8	2,865
Wealth quintile				
Lowest	96.0	3,017	97.9	1,078
Second	98.2	3,164	98.8	1,218
Middle	98.7	3,245	99.1	1,351
Fourth	99.5	3,308	99.8	1,468
Highest	99.9	4,089	99.8	1,616
Total	98.5	16,823	99.2	6,731

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 17.2 presents levels of knowledge for the various HIV/AIDS prevention methods by background characteristics. Women are most knowledgeable about condoms for preventing transmission of the AIDS virus (87 percent) and are equally aware that the chances of getting the AIDS virus can be reduced by limiting sex to one uninfected partner who has no other partners (86 percent); knowledge of abstinence as a way to avoid AIDS was cited somewhat less frequently among women (83 percent). About 91 percent of men cite each of the three components of the ABCs of avoiding AIDS.

Table 17.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Cambodia 2005

	Women					Men				
	Percentage who say HIV can be prevented by:					Percentage who say HIV can be prevented by:				
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms, and limiting sexual intercourse to one uninfected partner[1,2]	Abstaining from sexual intercourse	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms, and limiting sexual intercourse to one uninfected partner[1,2]	Abstaining from sexual intercourse	Number of men
Age										
15-24	88.5	86.4	81.4	82.9	6,646	92.0	89.8	85.3	91.0	2,884
15-19	88.3	86.3	81.1	82.3	3,601	91.6	87.7	83.6	90.1	1,662
20-24	88.7	86.5	81.8	83.6	3,045	92.5	92.5	87.6	92.2	1,222
25-29	89.8	88.6	83.5	83.3	2,051	91.2	91.0	85.6	93.0	830
30-39	87.3	86.9	80.3	83.1	4,311	90.5	93.4	85.9	93.7	1,669
40-49	84.3	84.3	76.7	83.1	3,815	90.0	90.1	83.4	93.5	1,348
Marital status										
Never married	87.4	84.8	79.8	81.9	5,352	91.7	89.0	84.5	91.1	2,606
Ever had sex	*	*	*	*	10	95.8	94.1	91.7	96.4	384
Never had sex	87.4	84.8	79.8	81.9	5,341	91.0	88.1	83.2	90.2	2,222
Married/living together	87.8	87.3	80.9	83.7	10,087	90.8	92.3	85.6	93.3	3,973
Divorced/separated/ widowed	84.8	85.0	78.4	83.4	1,384	90.9	87.1	83.5	93.0	152
Residence										
Urban	91.8	89.8	85.6	86.2	2,973	94.6	92.2	89.1	92.1	1,133
Rural	86.5	85.6	79.2	82.4	13,850	90.4	90.6	84.3	92.5	5,598
Province										
Banteay Mean Chey	82.5	76.0	70.0	76.4	650	85.1	72.0	65.6	77.5	253
Kampong Cham	77.7	74.3	67.7	76.8	2,116	75.9	90.7	73.2	91.4	870
Kampong Chhnang	94.4	96.5	92.5	96.0	556	97.7	97.1	95.4	98.3	234
Kampong Speu	86.1	81.5	74.2	83.7	870	98.0	95.1	93.8	98.3	348
Kampong Thom	89.7	94.4	87.6	92.8	799	86.7	92.4	83.5	90.6	331
Kandal	93.5	90.4	86.2	86.2	1,612	97.0	89.3	87.5	97.7	682
Kratie	74.6	67.1	58.0	74.0	331	89.4	97.4	88.7	96.3	128
Phnom Penh	98.3	97.2	96.0	97.7	1,896	96.7	92.3	90.7	94.1	737
Prey Veng	86.1	86.7	79.9	82.3	1,395	94.8	88.7	85.2	96.8	482
Pursat	84.3	92.7	82.1	85.9	480	74.3	59.4	54.2	62.0	202
Siem Reap	85.3	83.9	75.2	59.3	1,200	94.9	88.5	84.5	85.9	461
Svay Rieng	96.3	97.7	94.5	95.7	658	89.6	99.4	89.3	94.0	281
Takeo	89.4	87.6	81.8	91.0	1,102	95.8	96.5	92.8	98.1	491
Otdar Mean Chey	97.1	98.6	96.4	97.1	177	98.7	99.3	98.2	98.5	69
Battambang/Krong Pailin	96.9	97.3	94.8	89.7	1,247	96.2	94.2	92.3	89.3	456
Kampot/Krong Kep	82.0	80.6	69.8	74.1	839	94.9	94.5	90.9	94.1	321
Krong Preah Sihanouk/ Kaoh Kong	73.4	67.4	56.2	64.1	379	92.0	95.9	89.6	98.0	160
Preah Vihear/Steung Treng	70.8	75.0	62.3	69.1	301	86.9	89.2	81.6	93.6	116
Mondol Kiri/Rattanak Kiri	48.9	56.1	42.0	44.7	215	79.4	92.8	77.3	90.2	110
Education										
No schooling	76.3	76.3	66.6	71.9	3,270	76.3	81.6	68.6	85.9	606
Primary	87.4	86.1	80.0	83.7	9,389	89.3	88.8	81.8	91.0	3,261
Secondary and higher	96.0	94.7	91.9	90.5	4,165	96.3	95.2	92.3	95.5	2,865
Wealth quintile										
Lowest	79.7	79.9	71.4	76.2	3,017	85.1	87.1	77.7	90.4	1,078
Second	83.2	83.4	75.3	78.2	3,164	86.6	87.8	79.1	90.0	1,218
Middle	86.5	84.4	78.1	82.6	3,245	91.6	90.8	85.4	93.1	1,351
Fourth	90.8	88.7	83.8	85.9	3,308	93.4	92.7	88.2	94.0	1,468
Highest	94.4	92.9	89.7	90.0	4,089	96.1	94.2	91.5	93.6	1,616
Total	87.4	86.3	80.3	83.1	16,823	91.1	90.9	85.1	92.4	6,731

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Every time they have sexual intercourse
[2] Who has no other partners

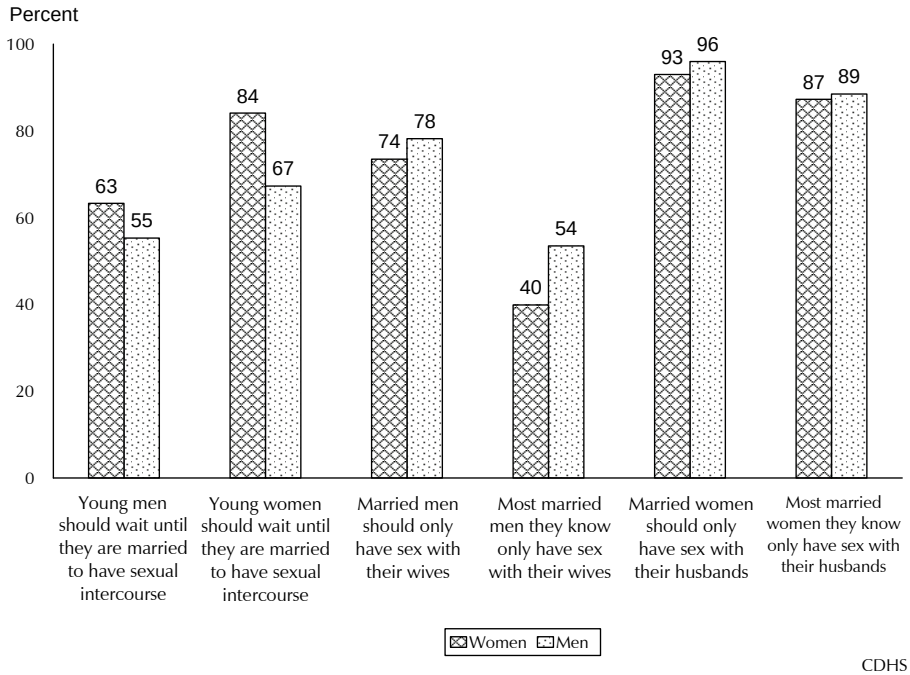
As Table 17.2 shows, women age 25-29 are somewhat more likely to have knowledge of the various modes of prevention than older women. Men age 20-24 are somewhat more likely to have knowledge about prevention of HIV/AIDS compared with older and younger men. There is little variation in knowledge of the various modes of prevention by marital status among either women or men; however, knowledge is higher among men who have never been married but have had sex.

Among both women and men, levels of knowledge of preventive methods are generally somewhat higher in urban than in rural areas. There is considerable variability across provinces in knowledge of prevention methods. Among women, knowledge of all three methods of prevention is highest in Phnom Penh and Otdar Mean Chey and lowest in Mondol Kiri/Rattanak Kiri. Among men, comprehensive knowledge is highest in Otdar Mean Chey and lowest in Pursat.

There is far more variability in knowledge across education levels and wealth quintiles than is seen across age, marital status, or residence. Women and men with higher levels of schooling are more likely than those with less schooling to be aware of various preventive methods. Similarly, women and men in higher wealth quintiles are more likely than those in lower quintiles to be aware of ways to prevent the transmission of the HIV virus.

Figure 17.1 reflects the perceptions and beliefs that Cambodian respondents have about abstinence and faithfulness. The majority of respondents believe that young women and men should wait until marriage to have sex, and that husbands and wives should only have sex with their spouses. Women tend to be more conservative than men in their views on sexual mores; however, men are somewhat more likely to hold themselves to a higher standard than women do on the question of whether men should have sex with only their wife: 74 percent of women agree with this statement, whereas 78 percent of men do. Married women's sexual behavior is held to a higher standard by both men and women: 93 percent of women and 96 percent of men believe a woman should only have sex with her husband. When it comes to perceptions of others' behavior, only 40 percent of women and 54 percent of men say that most married men they know stay faithful to their wives, while 87 percent of women and 89 percent of men say that most married women they know stay faithful to their husbands.

Figure 17.1 **Perceptions and Beliefs about Abstinence and Faithfulness**



CDHS 2005

17.1.3 Knowledge about Transmission

The 2005 CDHS included questions to assess the prevalence of common misconceptions about AIDS and HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have the AIDS virus. They were asked whether a person can get AIDS from mosquito bites, by supernatural means, or by sharing food with a person who has AIDS.

The results in Tables 17.3.1 and 17.3.2 indicate that many Cambodian adults lack accurate knowledge about the ways in which the AIDS virus can and cannot be transmitted. Particularly critical is the fact that only 69 percent of women and 60 percent of men know that a healthy-looking person can have (and thus transmit) the virus that causes AIDS. Many women and men also erroneously believe that AIDS can be transmitted by mosquito bites; however, 63 percent of women and 70 percent of men do reject this common misconception. Larger proportions of women and men are aware that the AIDS virus cannot be transmitted by supernatural means (83 percent and 90 percent, respectively) or by sharing food with a person who has AIDS (87 percent for both women and men). Overall, less than half of women (48 percent) and men (44 percent) are able to reject two of the more common misconceptions about AIDS—that AIDS can be transmitted by mosquito bites and that a person can become infected with the AIDS virus by sharing food with someone who is infected—and know that a healthy-looking person can have the AIDS virus.

Tables 17.3.1 and 17.3.2 also provide an assessment of the level of comprehensive knowledge of HIV/AIDS prevention and transmission. Comprehensive knowledge is defined as: 1) knowing that both condom use and limiting sex partners to one uninfected person are HIV/AIDS prevention methods, 2) being aware that a healthy-looking person can have HIV, and 3) rejecting the two most common local misconceptions—that HIV/AIDS can be transmitted through mosquito bites and by sharing food. According to the CDHS results, 44 percent of women and 41 percent of men in Cambodia have comprehensive knowledge of HIV/AIDS prevention and transmission.

Finally, Tables 17.3.1 and 17.3.2 document considerable variation in HIV/AIDS knowledge. Sexually active, never-married men tend to be more knowledgeable than men in other marital status categories. For all indicators, the proportion of women and men with correct knowledge about HIV/AIDS prevention and transmission is higher in urban than rural areas. Variations in knowledge levels by province are marked among both women and men, with the highest levels of comprehensive knowledge about AIDS observed among female residents of Battambang/Krong Pailin (74 percent) and among male residents of Kandal (68 percent).

Education and wealth are strongly associated with both correct knowledge concerning common misconceptions and comprehensive knowledge of HIV/AIDS prevention and transmission. Among women, for example, 72 percent of women with a secondary or higher education have comprehensive knowledge about prevention and transmission modes compared with 22 percent of women with no education. Among men, the level of comprehensive knowledge varies from 17 percent among those with no education to 58 percent of those with a secondary or higher education.

Table 17.3.1 Comprehensive knowledge about AIDS: women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Cambodia 2005

Background characteristic	Percentage of women who say that: A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of women
Age							
15-24	72.3	69.2	85.8	90.2	55.0	50.1	6,646
15-19	71.9	70.2	86.5	89.7	55.2	50.2	3,601
20-24	72.8	67.9	85.0	90.9	54.8	49.8	3,045
25-29	71.6	65.6	85.8	89.0	51.6	47.2	2,051
30-39	65.2	59.7	81.3	85.5	44.1	40.4	4,311
40-49	64.3	53.9	76.3	82.8	40.1	35.9	3,815
Marital status							
Never married	71.4	69.9	85.3	89.5	55.1	50.0	5,352
Ever had sex	*	*	*	*	*	*	10
Never had sex	71.4	69.9	85.3	89.5	55.1	50.0	5,341
Married/living together	67.5	59.9	81.4	86.2	45.5	41.4	10,087
Divorced/separated/ widowed	65.5	57.2	80.0	85.5	43.9	40.2	1,384
Residence							
Urban	79.2	77.1	90.4	92.8	63.9	59.4	2,973
Rural	66.3	59.8	80.8	85.9	45.1	40.7	13,850
Province							
Banteay Mean Chey	61.3	51.1	71.9	81.2	35.4	30.0	650
Kampong Cham	61.0	43.9	63.4	78.0	33.1	28.4	2,116
Kampong Chhnang	88.6	74.8	94.9	92.6	67.1	63.4	556
Kampong Speu	67.3	54.5	85.1	88.5	39.7	34.3	870
Kampong Thom	62.2	52.4	70.3	77.6	37.7	36.7	799
Kandal	79.8	76.2	92.2	92.4	62.8	58.1	1,612
Kratie	60.4	61.8	74.5	79.7	44.1	33.5	331
Phnom Penh	87.6	79.5	96.3	95.2	71.6	70.0	1,896
Prey Veng	57.0	52.0	74.4	84.6	34.3	30.8	1,395
Pursat	53.1	64.7	78.3	87.3	37.3	35.0	480
Siem Reap	56.4	63.9	87.2	88.5	39.7	31.0	1,200
Svay Rieng	80.0	64.3	91.3	90.4	53.0	51.3	658
Takeo	66.3	70.3	89.0	93.2	52.8	46.6	1,102
Otdar Mean Chey	86.0	48.2	75.5	88.8	43.2	42.9	177
Battambang/Krong Pailin	87.8	85.8	95.9	97.8	76.7	74.3	1,247
Kampot/Krong Kep	55.1	58.2	89.5	90.9	37.0	30.2	839
Krong Preah Sihanouk/ Kaoh Kong	62.3	62.0	79.2	78.6	42.5	33.9	379
Preah Vihear/Steung Treng	37.3	39.2	54.8	64.6	19.8	17.9	301
Mondol Kiri/Rattanak Kiri	38.4	32.3	43.3	50.0	22.5	13.9	215
Education							
No schooling	52.4	40.6	68.2	73.9	25.7	22.2	3,270
Primary	66.6	59.4	81.5	87.2	44.0	39.4	9,389
Secondary and higher	85.7	88.2	95.9	97.4	76.3	71.6	4,165
Wealth quintile							
Lowest	52.6	41.3	68.4	74.1	26.7	23.7	3,017
Second	60.6	51.4	75.8	82.9	35.7	31.1	3,164
Middle	65.6	59.1	81.1	87.2	42.9	38.8	3,245
Fourth	75.2	72.4	89.1	92.7	57.6	52.1	3,308
Highest	83.6	82.9	93.9	95.6	71.2	66.6	4,089
Total	68.6	62.9	82.5	87.2	48.4	44.0	16,823

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Two most common local misconceptions: AIDS can be transmitted by mosquito bites and AIDS can be transmitted by sharing food with a person who has AIDS.

[2] Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Table 17.3.2 Comprehensive knowledge about AIDS: men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Cambodia 2005

Background characteristic	Percentage of men who say that: A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by super-natural means	A person cannot become infected by sharing food with a person who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconcaptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of men
Age							
15-24	59.9	75.6	90.7	89.1	48.5	45.2	2,884
15-19	56.3	72.4	90.0	87.8	44.6	41.4	1,662
20-24	64.7	79.9	91.7	91.0	53.8	50.4	1,222
25-29	62.5	69.9	89.7	89.2	46.8	43.5	830
30-39	59.3	66.5	90.6	86.3	41.6	39.1	1,669
40-49	57.8	62.0	86.9	83.7	37.7	34.9	1,348
Marital status							
Never married	60.2	75.9	90.6	89.0	48.5	45.3	2,606
Ever had sex	71.4	87.7	95.6	94.2	62.8	60.3	384
Never had sex	58.2	73.9	89.7	88.1	46.1	42.8	2,222
Married/Living together	59.1	66.1	89.2	86.2	41.7	38.9	3,973
Divorced/separated/ widowed	64.3	67.4	93.2	90.5	44.2	39.8	152
Residence							
Urban	68.4	82.5	95.0	93.1	58.3	55.0	1,133
Rural	57.9	67.4	88.7	86.2	41.6	38.7	5,598
Province							
Banteay Mean Chey	22.8	61.1	82.7	87.5	13.9	11.3	253
Kampong Cham	75.8	57.4	82.9	79.0	47.1	40.3	870
Kampong Chhnang	86.5	69.5	89.9	87.8	62.7	61.0	234
Kampong Speu	43.9	62.6	84.9	88.9	31.1	30.2	348
Kampong Thom	45.8	54.1	79.4	76.9	27.0	25.1	331
Kandal	88.1	79.8	97.4	95.6	73.6	68.4	682
Kratie	65.3	71.6	87.9	87.0	48.8	46.2	128
Phnom Penh	67.0	84.8	96.8	93.2	57.8	55.5	737
Prey Veng	50.2	69.9	93.0	91.3	37.9	34.4	482
Pursat	29.4	66.6	76.4	74.4	21.8	18.0	202
Siem Reap	52.5	79.5	94.7	93.2	46.3	43.8	461
Svay Rieng	3.7	62.6	92.0	87.8	2.1	2.1	281
Takeo	54.7	77.5	93.2	89.6	39.0	37.9	491
Otdar Mean Chey	84.6	56.4	82.0	81.1	49.8	49.8	69
Battambang/Krong Pailin	58.5	78.7	96.2	90.1	45.8	44.3	456
Kampot/Krong Kep	74.2	69.0	94.0	89.0	55.6	52.9	321
Krong Preah Sihanouk/ Kaoh Kong	80.7	75.3	96.2	91.7	60.3	56.5	160
Preah Vihear/Steung Treng	50.2	45.6	71.7	68.8	26.9	25.3	116
Mondol Kiri/Rattanak Kiri	36.5	40.4	61.0	60.9	21.0	19.9	110
Education							
No schooling	42.2	42.4	68.1	66.8	20.4	17.3	606
Primary	54.5	59.4	87.0	83.9	34.2	31.2	3,261
Secondary and higher	69.2	87.6	97.6	95.7	61.1	58.2	2,865
Wealth quintile							
Lowest	46.4	48.3	77.2	78.3	25.2	23.4	1,078
Second	50.5	58.7	84.6	82.4	29.4	26.5	1,218
Middle	55.7	67.1	90.2	85.2	39.6	36.8	1,351
Fourth	65.1	78.1	95.1	91.3	51.6	48.4	1,468
Highest	73.7	87.6	96.9	95.4	66.0	62.2	1,616
Total	59.6	69.9	89.8	87.3	44.4	41.4	6,731

[1] Two most common local misconceptions: AIDS can be transmitted by mosquito bites and AIDS can be transmitted by sharing food with a person who has AIDS.
[2] Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

17.1.4 Knowledge of Mother-to-Child Transmission

Educating people in the ways in which HIV can be transmitted from mother to child and the fact that the risk of transmission can be reduced by taking antiretroviral drugs is critical to reducing mother-to-child transmission (MTCT) of HIV. To obtain information on these issues, respondents were asked if the virus that causes AIDS can be transmitted from a mother to a child during breastfeeding and whether a mother with HIV can reduce the risk of transmission to the baby by taking certain drugs (antiretrovirals) during pregnancy (see Table 17.4).

Although 87 percent of women and 84 percent of men know that HIV can be transmitted by breastfeeding, only one-third of women and about one-fourth of men know that the risk of MTCT can be reduced through the use of certain drugs during pregnancy. Thirty-one percent of women and 21 percent of men have comprehensive knowledge of MTCT—they are aware of both aspects of MTCT transmission.

There are no marked differences in MTCT knowledge among women and men by age, marital status, or pregnancy status (for women); however, there is considerable variation by residence, education, and wealth. While most respondents know that HIV can be transmitted by breastfeeding, it is the lack of knowledge about antiretrovirals that account for most of the variation by background characteristics. Comprehensive knowledge about mother-to-child transmission is highest among men and women living in urban areas. Women living in Battambang/Krong Pailin are most knowledgeable about MTCT (57 percent have comprehensive knowledge), while the same can be said of men living in Kampong Speu and Prey Veng, each having one-third of men with comprehensive knowledge. Knowledge levels are lowest among women and men who have no education, and among those who are in the lowest wealth quintile. Particularly notable is the comparatively low level of knowledge among pregnant women; just 30 percent of pregnant women are aware both that HIV can be transmitted from mother to child during breastfeeding and that mother-to-child transmission can be reduced by taking certain drugs during pregnancy. This indicates that there is currently incomplete coverage of MTCT counseling during prenatal care visits in Cambodia.

Table 17.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by mother taking special drugs during pregnancy, by background characteristics, Cambodia 2005

	Women				Men			
	Percentage who know that:				Percentage who know that:			
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	85.8	32.8	31.0	6,646	81.9	25.6	22.3	2,884
15-19	85.3	32.7	30.9	3,601	81.2	25.2	21.8	1,662
20-24	86.4	32.9	31.1	3,045	82.7	26.1	22.9	1,222
25-29	88.8	34.9	33.6	2,051	83.3	22.9	19.6	830
30-39	88.4	32.1	30.5	4,311	87.0	21.4	19.3	1,669
40-49	87.1	31.2	30.1	3,815	85.1	23.4	21.5	1,348
Marital status								
Never married	83.9	32.6	30.6	5,352	81.9	25.8	22.4	2,606
Ever had sex	*	*	*	10	78.6	32.9	27.5	384
Never had sex	83.9	32.6	30.7	5,341	82.4	24.6	21.5	2,222
Married/living together	89.0	32.5	31.2	10,087	85.1	22.3	20.0	3,973
Divorced/separated/ widowed	85.9	32.1	31.0	1,384	90.6	28.0	26.8	152
Pregnancy status								
Currently pregnant	89.6	30.9	30.1	993	na	na	na	na
Not pregnant/not sure	87.0	32.6	31.0	15,830	na	na	na	na
Residence								
Urban	86.7	42.1	39.3	2,973	80.2	30.9	26.4	1,133
Rural	87.2	30.4	29.2	13,850	84.7	22.4	20.0	5,598
Province								
Banteay Mean Chey	85.1	30.2	28.5	650	86.5	16.5	16.0	253
Kampong Cham	83.5	18.2	17.5	2,116	82.4	10.2	7.7	870
Kampong Chhnang	96.8	24.5	23.8	556	91.2	11.4	10.7	234
Kampong Speu	87.2	48.7	44.7	870	82.1	37.0	33.2	348
Kampong Thom	90.1	34.8	34.1	799	88.3	32.8	31.0	331
Kandal	88.5	50.9	48.7	1,612	84.9	31.3	28.5	682
Kratie	78.3	24.4	22.7	331	94.0	31.4	30.8	128
Phnom Penh	88.2	43.5	40.6	1,896	72.5	39.9	32.3	737
Prey Veng	87.9	29.8	28.4	1,395	86.7	36.7	32.7	482
Pursat	85.6	12.4	11.8	480	70.2	7.9	7.9	202
Siem Reap	86.6	23.0	22.2	1,200	79.4	4.5	3.8	461
Svay Rieng	92.4	36.2	34.4	658	91.9	22.1	21.3	281
Takeo	89.3	9.6	9.3	1,102	93.4	13.9	12.9	491
Otdar Mean Chey	97.4	13.0	12.2	177	95.8	3.5	3.4	69
Battambang/Krong Pailin	95.7	58.6	57.4	1,247	87.3	35.3	31.4	456
Kampot/Krong Kep	89.1	35.9	33.8	839	86.6	27.8	25.4	321
Krong Preah Sihanouk/ Kaoh Kong	61.2	28.2	26.5	379	79.4	21.1	17.0	160
Preah Vihear/Steung Treng	77.6	13.2	12.8	301	81.4	20.3	19.2	116
Mondol Kiri/Rattanak Kiri	55.0	11.7	11.0	215	77.7	5.9	5.7	110
Education								
No schooling	79.0	21.0	20.2	3,270	71.3	12.1	9.9	606
Primary	87.8	31.2	29.8	9,389	83.8	19.8	17.7	3,261
Secondary and higher	92.1	44.5	42.2	4,165	86.8	30.8	27.3	2,865
Wealth quintile								
Lowest	82.6	22.7	21.8	3,017	79.8	15.6	13.9	1,078
Second	86.5	25.4	24.2	3,164	84.2	17.9	16.2	1,218
Middle	87.9	29.0	27.5	3,245	85.3	22.7	19.9	1,351
Fourth	89.6	35.0	33.7	3,308	88.6	24.7	22.3	1,468
Highest	88.5	46.0	43.5	4,089	81.3	33.8	29.5	1,616
Total	87.1	32.5	31.0	16,823	84.0	23.8	21.1	6,731

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

17.2 Stigma Associated with AIDS and Attitudes Related to HIV/AIDS

Knowledge and beliefs about AIDS affect how people treat those they know to be living with HIV. In the 2005 CDHS, a number of questions were posed to respondents to measure their attitudes towards HIV-infected people, including questions about their willingness to buy vegetables from an infected vegetable seller, to let others know the HIV status of family members, and to take care of relatives who have the AIDS virus in their own household. They were also asked whether an HIV-positive female who is not sick should be allowed to continue teaching. Tables 17.5.1 and 17.5.2 show the percentages who express positive attitudes towards people with HIV among women and men who have heard about HIV/AIDS by background characteristics.

Both women and men tend to express more positive attitudes in response to the questions concerning behavior towards HIV-infected relatives and teachers than to the questions about shopkeepers. Seventy-seven percent of women and 83 percent of men say they would be willing to care for a family member with the AIDS virus in their home; 79 percent of women and 81 percent of men say that an HIV-positive teacher should be allowed to continue teaching. Comparatively fewer (64 percent of women and 73 percent of men) would buy fresh food from a shopkeeper with AIDS. The percentage expressing accepting attitudes on all four measures is 36 percent among women and 32 percent among men.

Among men, wealth is related to some measures of accepting attitudes towards those who are HIV positive. For example, willingness to care for a family member who has HIV varies little by wealth quintile. However, willingness to buy fresh vegetables from someone with HIV, or believing that an HIV-positive female teacher who is not sick should be allowed to continue teaching are positively and monotonically related to wealth: as wealth increases, so do the proportions of respondents who hold these accepting attitudes towards those who are HIV positive. For both men and women, increasing levels of education are associated with increasing levels of accepting attitudes towards people living with HIV.

Table 17.5.1 Accepting attitudes toward those living with HIV/AIDS: women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with AIDS, by background characteristics, Cambodia 2005

Background characteristic	Percentage of women who: Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	80.9	75.7	86.6	66.8	42.8	6,531
15-19	81.5	76.1	86.4	65.5	42.8	3,538
20-24	80.1	75.2	86.8	68.3	42.9	2,993
25-29	77.6	69.0	82.8	73.2	40.5	2,025
30-39	73.3	56.0	73.6	74.9	31.6	4,249
40-49	71.8	49.0	69.6	78.8	27.8	3,774
Marital status						
Never married	80.0	74.9	86.1	66.1	42.0	5,242
Ever had sex	*	*	*	*	*	10
Never had sex	80.0	74.9	86.1	66.1	42.0	5,232
Married/living together	74.9	58.7	75.3	75.4	33.8	9,983
Divorced/separated/widowed	74.2	57.7	78.0	75.0	32.1	1,354
Residence						
Urban	76.2	77.9	86.8	62.9	36.8	2,959
Rural	76.5	60.7	77.2	74.5	36.1	13,619
Province						
Banteay Mean Chey	52.5	46.6	58.9	80.4	19.7	638
Kampong Cham	79.3	51.2	69.2	72.6	29.9	2,028
Kampong Chhnang	77.3	66.1	90.0	76.7	40.5	555
Kampong Speu	77.5	57.5	72.6	51.6	24.2	867
Kampong Thom	79.1	53.7	82.9	67.0	32.4	791
Kandal	86.4	66.1	83.9	81.2	47.6	1,610
Kratie	59.6	56.9	70.4	71.6	26.3	316
Phnom Penh	75.6	82.5	91.3	51.2	30.1	1,896
Prey Veng	83.5	55.1	74.9	69.3	33.3	1,385
Pursat	90.2	71.5	79.6	67.6	39.0	462
Siem Reap	45.7	63.6	74.4	86.9	24.7	1,200
Svay Rieng	96.1	68.3	86.2	85.5	54.4	658
Takeo	73.1	68.2	86.9	76.5	43.4	1,101
Otdar Mean Chey	65.4	43.0	63.4	87.2	27.3	177
Battambang/Krong Pailin	89.8	81.3	91.5	88.6	66.8	1,247
Kampot/Krong Kep	79.2	67.7	78.0	80.0	39.2	838
Krong Preah Sihanouk/ Kaoh Kong	75.9	67.2	68.3	59.4	32.7	375
Preah Vihear/Steung Treng	65.1	41.3	54.3	57.1	15.8	277
Mondol Kiri/Rattanak Kiri	45.6	36.5	52.1	50.5	9.1	157
Education						
No schooling	68.3	43.9	63.7	78.0	24.2	3,124
Primary	76.5	60.6	77.8	72.3	34.5	9,290
Secondary and higher	82.4	85.6	92.8	68.4	49.1	4,165
Wealth quintile						
Lowest	73.0	46.2	67.5	74.4	28.3	2,895
Second	73.8	53.3	73.2	76.5	32.2	3,107
Middle	77.7	59.3	76.8	74.7	35.4	3,202
Fourth	78.3	70.3	83.0	74.6	41.8	3,291
Highest	78.4	82.4	89.8	64.2	41.2	4,083
Total	76.5	63.8	78.9	72.4	36.2	16,579

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 17.5.2 Accepting attitudes toward those living with HIV/AIDS: men

Among men age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with AIDS, by background characteristics, Cambodia 2005

Background characteristic	Percentage of men who: Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
Age						
15-24	87.7	79.1	86.6	43.9	32.7	2,846
15-19	86.8	76.3	85.2	39.2	28.4	1,633
20-24	88.9	82.7	88.4	50.2	38.6	1,213
25-29	84.3	78.5	84.3	53.5	35.7	824
30-39	81.5	68.3	77.2	61.0	32.7	1,662
40-49	74.8	61.0	73.0	60.8	27.4	1,342
Marital status						
Never married	87.2	79.4	87.1	43.3	32.4	2,567
Ever had sex	88.8	87.8	91.8	39.0	30.7	382
Never had sex	86.9	77.9	86.3	44.1	32.7	2,185
Married/living together	80.6	68.3	77.2	58.9	32.0	3,955
Divorced/separated/widowed	81.0	74.7	86.1	49.3	27.6	152
Residence						
Urban	79.0	81.9	87.4	43.0	27.6	1,125
Rural	84.0	70.8	80.0	54.7	32.9	5,549
Province						
Banteay Mean Chey	41.1	64.2	74.3	38.5	9.0	247
Kampong Cham	95.0	69.2	74.4	70.9	43.8	870
Kampong Chhnang	85.8	73.3	82.5	59.7	42.2	234
Kampong Speu	91.2	65.3	89.3	32.5	19.2	346
Kampong Thom	88.8	58.2	79.8	50.7	26.9	328
Kandal	76.8	80.5	86.8	57.8	37.2	678
Kratie	70.6	69.7	77.1	72.9	38.9	126
Phnom Penh	81.2	79.6	89.4	33.0	21.4	734
Prey Veng	86.8	73.4	83.3	41.1	26.9	482
Pursat	90.7	83.0	87.8	67.0	51.3	177
Siem Reap	90.7	66.1	76.9	48.4	31.3	458
Svay Rieng	90.4	76.9	83.2	65.4	43.4	281
Takeo	90.6	77.9	94.9	64.4	49.0	491
Otdar Mean Chey	96.9	48.0	59.9	89.1	38.8	69
Battambang/Krong Pailin	87.6	82.5	75.6	43.9	28.1	454
Kampot/Krong Kep	85.6	82.1	81.7	46.0	28.4	319
Krong Preah Sihanouk/ Kaoh Kong	38.7	71.8	76.8	49.5	16.8	160
Preah Vihear/Steung Treng	27.8	49.0	50.2	54.2	3.0	112
Mondol Kiri/Rattanak Kiri	78.8	38.7	47.0	69.6	19.8	106
Education						
No schooling	75.5	41.9	57.5	60.7	22.9	585
Primary	81.8	65.1	76.6	52.4	27.9	3,230
Secondary and higher	86.3	87.6	91.2	51.4	38.5	2,860
Wealth quintile						
Lowest	80.4	54.6	69.3	55.5	23.8	1,055
Second	83.5	63.3	74.4	54.7	30.9	1,204
Middle	83.8	71.2	79.4	53.4	31.7	1,339
Fourth	84.4	80.3	86.3	55.5	37.8	1,464
Highest	83.0	85.9	91.0	46.3	33.2	1,612
Total	83.1	72.7	81.2	52.7	32.0	6,674

17.3 Attitudes towards Negotiating Safer Sex and Educating Youth about Condom Use

Knowledge about HIV transmission and ways to prevent it are of little use if people feel powerless to negotiate safer sex practices with their partner. In an effort to assess the ability of women to negotiate safer sex with a spouse who has an STI, CDHS respondents were asked if they thought a wife is justified in refusing to have sex with her husband when she knows he has a disease that can be transmitted through sexual contact, and if a woman in the same circumstances is justified in asking her husband to use a condom. Similarly, youth need to have sufficient knowledge about HIV/AIDS and condoms to be able to negotiate and protect themselves once they become sexually active. To gauge the extent of support for programs to increase condom knowledge among youth, all CDHS respondents (youth and adults) were asked whether they thought that children age 12-14 should be taught about using condoms to avoid AIDS.

Table 17.6 shows that 95 percent of women and 99 percent of men believe that, if she knows her husband has an STI, a woman is justified in either refusing to have sex with him or asking him to wear a condom. Considering the two actions separately, the majority of both women (85 percent) and men (96 percent) say that a woman can refuse to have sex.

The majority of respondents in all groups support a woman's right to negotiate safer sex. However, there are small differences by background characteristics in the percentages of respondents holding this opinion. For example, the higher a respondent's educational attainment, the more likely he or she is to say that a woman can refuse sex or propose using a condom. Support for women's negotiating rights also tends to increase across wealth quintiles among both women and men. The proportions supporting a woman's right to negotiate safer sex varies across provinces. Among women, the percentage saying that a woman is justified in refusing sex or asking that a condom be used ranges from a low of 69 percent in Mondol Kiri/Rattanak Kiri to 100 percent in Kampong Chhnang, Svay Rieng, Otdar Mean Chey, and Battambang/Krong Pailin. Among men, support for women's negotiating rights is also lowest in Mondol Kiri/Rattanak Kiri (94 percent), though it is much higher than among women in those same provinces. Men's support for women's rights to negotiate sex is 99 percent or higher in 12 of the 19 provinces.

Table 17.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women[1] and men age 15-49 who believe that if a husband has a sexually transmitted disease his wife is justified in refusing to have sexual relations with him or in asking that they use a condom, by background characteristics, Cambodia 2005

	Women				Men			
	Woman is justified in:				Woman is justified in:			
Background characteristic	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of women	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of men
Age								
15-24	82.5	78.5	92.7	1,665	95.0	97.3	98.2	2,884
15-19	80.5	74.3	90.9	925	93.2	96.3	97.3	1,662
20-24	84.9	83.6	94.9	740	97.4	98.5	99.4	1,222
25-29	87.6	88.3	95.6	547	96.7	98.7	99.1	830
30-39	85.3	87.5	96.8	1,065	97.1	98.4	99.1	1,669
40-49	86.8	86.7	96.7	924	96.6	98.8	99.4	1,348
Marital status								
Never married	80.4	72.6	90.6	1,368	94.4	97.0	98.0	2,606
Ever had sex	*	*	*	2	96.6	98.3	99.7	384
Never had sex	80.5	72.6	90.6	1,366	94.0	96.8	97.7	2,222
Married/living together	87.1	90.8	97.5	2,508	97.1	98.7	99.3	3,973
Divorced/separated/ widowed	85.7	77.7	93.6	325	97.4	97.3	97.8	152
Residence								
Urban	85.2	87.3	96.6	752	96.9	98.5	99.4	1,133
Rural	84.7	83.1	94.6	3,449	95.9	97.9	98.6	5,598
Province								
Banteay Mean Chey	88.5	90.1	97.5	156	92.4	99.5	99.5	253
Kampong Cham	85.9	62.2	89.2	557	96.9	97.0	97.6	870
Kampong Chhnang	96.5	96.5	100.0	140	99.0	99.3	99.7	234
Kampong Speu	65.9	79.4	90.3	216	79.1	96.4	98.4	348
Kampong Thom	87.0	90.6	96.0	197	97.6	98.5	98.5	331
Kandal	87.5	91.9	99.0	409	98.1	97.8	99.5	682
Kratie	89.9	85.5	96.0	76	97.3	97.6	98.0	128
Phnom Penh	91.5	91.3	99.0	480	98.9	99.0	99.8	737
Prey Veng	79.9	88.7	94.3	331	98.2	98.9	98.9	482
Pursat	70.9	83.8	94.7	115	98.3	98.8	100.0	202
Siem Reap	78.2	89.2	93.1	327	96.2	97.9	98.2	461
Svay Rieng	99.5	92.9	100.0	153	98.7	99.4	99.4	281
Takeo	86.4	78.9	95.5	260	97.5	97.5	98.1	491
Otdar Mean Chey	99.8	100.0	100.0	48	99.8	99.9	99.9	69
Battambang/Krong Pailin	91.9	95.0	99.6	287	94.3	97.9	99.4	456
Kampot/Krong Kep	82.9	80.2	97.8	228	96.3	98.4	98.7	321
Krong Preah Sihanouk/ Kaoh Kong	67.6	52.4	80.3	91	94.6	97.4	99.3	160
Preah Vihear/Steung Treng	77.2	79.9	90.3	83	89.3	98.5	98.8	116
Mondol Kiri/Rattanak Kiri	57.3	51.9	68.6	48	91.9	91.9	93.8	110
Education								
No schooling	82.4	78.3	92.7	801	93.7	94.6	96.3	606
Primary	85.0	83.9	95.0	2,322	95.3	97.9	98.6	3,261
Secondary and higher	86.1	87.7	96.7	1,079	97.4	98.9	99.5	2,865
Wealth quintile								
Lowest	84.9	78.8	92.6	797	94.2	95.9	97.5	1,078
Second	82.0	82.1	94.2	819	94.4	97.1	97.8	1,218
Middle	83.7	83.5	94.3	800	95.7	98.7	98.9	1,351
Fourth	86.5	85.7	96.6	853	97.0	98.5	99.2	1,468
Highest	86.6	88.4	96.7	932	98.0	99.2	99.8	1,616
Total	84.8	83.8	95.0	4,201	96.0	98.0	98.8	6,731

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Among women who were administered the women's status module.

Table 17.7 shows the percentage of women and men who agree that children age 12-14 years should be taught about using a condom to avoid AIDS. About half (54 percent) of women agree that children should be taught about condom use, whereas 69 percent of men agree. There is little consistent variation by age, marital status, education, or wealth. The greatest variation occurs by province: respondents from Mondol Kiri/Rattanak Kiri are the least likely to agree that children should be taught to use condoms (26 percent of women and 58 percent of men), while respondents from Otdar Mean Chey are most likely to agree (82 percent of women and 100 percent of men).

Table 17.7 Adult support of education about condom use to prevent AIDS

Percentage of women and men age 18-49 who agree that children age 12-14 years should be taught about using a condom to avoid AIDS, by background characteristics, Cambodia 2005

Background characteristic	Women		Men	
	Percentage who agree	Number of women	Percentage who agree	Number of men
Age				
18-24	53.5	4,348	67.1	1,779
18-19	51.0	1,303	66.3	557
20-24	54.6	3,045	67.5	1,222
25-29	53.3	2,051	71.6	830
30-39	51.7	4,311	69.2	1,669
40-49	55.9	3,815	70.6	1,348
Marital status				
Never married	51.7	3,148	66.6	1,504
Married/living together	54.2	9,994	70.2	3,970
Divorced/separated/widowed	53.1	1,383	70.6	152
Residence				
Urban	50.0	2,545	68.3	962
Rural	54.3	11,979	69.4	4,664
Province				
Banteay Mean Chey	56.4	570	74.5	207
Kampong Cham	43.7	1,869	59.7	763
Kampong Chhnang	61.3	480	72.1	193
Kampong Speu	48.4	754	78.6	283
Kampong Thom	77.7	698	78.0	271
Kandal	46.8	1,403	61.6	558
Kratie	52.4	289	69.9	110
Phnom Penh	36.1	1,624	67.8	632
Prey Veng	63.3	1,229	61.4	392
Pursat	49.2	405	75.1	162
Siem Reap	68.6	1,028	65.9	388
Svay Rieng	45.7	562	93.4	224
Takeo	47.6	955	83.6	408
Otdar Mean Chey	81.6	148	99.9	57
Battambang/Krong Pailin	74.2	1,029	64.2	382
Kampot/Krong Kep	62.0	710	70.6	264
Krong Preah Sihanouk/ Kaoh Kong	49.9	333	65.4	136
Preah Vihear/Steung Treng	44.6	256	60.9	98
Mondol Kiri/Rattanak Kiri	26.1	184	58.1	98
Education				
No schooling	52.7	3,128	64.1	572
Primary	54.6	8,214	70.2	2,710
Secondary and higher	51.9	3,182	69.3	2,344
Wealth quintile				
Lowest	55.3	2,676	67.3	899
Second	57.5	2,774	68.4	1,032
Middle	55.3	2,799	72.2	1,112
Fourth	53.9	2,806	69.9	1,213
Highest	47.4	3,469	68.1	1,370
Total	53.6	14,524	69.2	5,626

17.4 HIGHER-RISK SEX

Given that most HIV infections in Cambodia are contracted through heterosexual contact, information on sexual behavior is important in designing and monitoring intervention programs to control the spread of the epidemic. In the context of HIV/AIDS prevention, limiting the number of sexual partners and having protected sex are crucial to combating the epidemic.

The 2005 CDHS included questions on respondents' sexual partners during the 12 months preceding the survey. For male respondents, an additional question was asked on whether they paid for sex during the 12 months preceding the interview. Information on the use of condoms at the last sexual encounter with each type of partner was collected from both women and men. Finally, sexually active women and men were asked about the total number of partners they had during their lifetime. These questions are of course sensitive, and in interpreting the results in this section it is important to remember that respondents' answers are likely subject to at least some reporting bias.

17.4.1 Multiple Sexual Partners and Higher-Risk Sex

Tables 17.8.1 and 17.8.2 present several indicators based on information collected from sexually-active women and men about their sexual partners during the 12-month period before the survey and over their lifetime. The first two indicators in the tables assess the prevalence of multiple partners and of higher-risk sexual intercourse among women and men who reported having intercourse during the 12 months prior to the survey. Higher-risk sex involves sexual intercourse with a partner who is neither a spouse nor a cohabiting partner. The third indicator (for men only) relates to condom use during the last higher-risk sexual encounter. The fourth indicator, the mean number of sexual partners that a woman or man has had during their lifetime, provides an assessment of lifetime exposure to one of the elements of higher-risk sex, multiple partners.

The tables show that, among those who had sex in the previous 12 months, less than 1 percent of women age 15-49 report having had two or more sexual partners during the period, while 10 percent of men age 15-49 have had two or more partners. Almost no women report having had higher-risk sexual intercourse in the past 12 months (i.e., sexual intercourse with someone other than their spouse or cohabiting partner); the overall prevalence is one tenth of one percent. However, 14 percent of men report higher-risk sex in the past year.

The differentials presented in the tables suggest that higher-risk sex, particularly among men, is concentrated in a limited number of population subgroups. First, the prevalence of higher-risk sex is by definition universal among never-married men who reported having sexual intercourse during the 12-month period prior to the CDHS.[1] Looking at the other marital status categories, very few women who were currently in union (less than 1 percent) reported higher-risk sexual encounters during the 12 months prior to the survey. Divorced women were most likely to have had higher-risk sex in the past year: 3 percent report having had sex with a noncohabiting partner. Seven percent of married men and 71 percent of divorced, separated or widowed men said they had engaged in higher-risk sex in the previous 12 months.

Because many respondents in the 15-24 age group are likely to be never-married, it is expected that higher-risk sex would be more prevalent in these cohorts than among older women and men. What is somewhat surprising is the size of the gender differential in the reporting of these sexual behaviors among respondents in this age range. For example, 36 percent of men age 15-24 who had sexual intercourse during the 12-month period prior to the survey reported that they had engaged in higher-risk sex compared with less than 1 percent of women in the same cohort. The size of the differential suggests that sexually active men age 15-24 are having paid sex.

[1] To determine marital status, the CDHS asked respondents whether or not they were currently or had ever been married or lived together with a partner. Thus, by definition, sexual intercourse among respondents classified as never-married is high risk, i.e., it involves a nonmarital, noncohabiting partner.

Table 17.8.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: women

Among women age 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months, and the mean number of sexual partners during her lifetime for women who ever had sexual intercourse, by background characteristics, Cambodia 2005

	Among women who had sexual intercourse in the past 12 months:			Among women who ever had sexual intercourse:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of women	Mean number of sexual partners in lifetime	Number of women
Age					
15-24	0.1	0.5	2,048	1.2	2,192
15-19	0.1	1.2	376	1.2	390
20-24	0.1	0.4	1,672	1.2	1,802
25-29	0.2	0.2	1,550	1.1	1,682
30-39	0.5	0.0	3,550	1.1	3,966
40-49	0.2	0.0	2,852	1.1	3,606
Marital status					
Never married	*	*	3	*	8
Married/living together	0.3	0.1	9,843	1.1	10,063
Divorced/separated/widowed	0.9	2.6	154	1.2	1,375
Residence					
Urban	0.1	0.6	1,546	1.3	1,804
Rural	0.3	0.1	8,454	1.1	9,641
Province					
Banteay Mean Chey	0.0	0.0	420	1.1	458
Kampong Cham	2.0	0.0	1,277	1.1	1,498
Kampong Chhnang	0.0	0.0	328	1.1	385
Kampong Speu	0.1	0.3	538	1.1	627
Kampong Thom	0.0	0.0	478	1.1	555
Kandal	0.0	0.0	922	1.1	1,060
Kratie	0.0	0.0	216	1.1	239
Phnom Penh	0.0	0.8	939	1.4	1,110
Prey Veng	0.0	0.0	841	1.1	990
Pursat	0.0	0.0	274	1.1	308
Siem Reap	0.0	0.0	714	1.1	806
Svay Rieng	0.2	0.6	425	1.1	472
Takeo	0.0	0.0	685	1.1	773
Otdar Mean Chey	0.5	0.5	117	1.5	131
Battambang/Krong Pailin	0.0	0.0	697	1.1	784
Kampot/Krong Kep	0.0	0.0	528	1.1	577
Krong Preah Sihanouk/ Kaoh Kong	0.3	0.4	245	1.1	275
Preah Vihear/Steung Treng	0.1	0.3	207	1.2	227
Mondol Kiri/Rattanak Kiri	0.0	0.0	149	1.1	169
Education					
No schooling	0.5	0.1	2,268	1.2	2,707
Primary	0.3	0.1	5,904	1.1	6,730
Secondary and higher	0.0	0.2	1,828	1.2	2,009
Wealth quintile					
Lowest	0.2	0.0	1,940	1.1	2,272
Second	0.2	0.0	1,998	1.1	2,319
Middle	0.4	0.0	1,952	1.1	2,211
Fourth	0.3	0.0	2,016	1.1	2,227
Highest	0.4	0.6	2,095	1.2	2,417
Total	0.3	0.1	10,000	1.1	11,446

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Sexual intercourse with a nonmarital, noncohabiting partner

Table 17.8.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: men

Among men age 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, and the mean number of sexual partners during his lifetime for men who ever had sexual intercourse, by background characteristics, Cambodia 2005

	Among men who had sexual intercourse in the past 12 months:			Among men who had higher-risk intercourse in the past 12 months:		Among men who ever had sexual intercourse:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men	Mean number of sexual partners in lifetime	Number of men
Age							
15-24	19.3	36.0	697	84.4	251	4.3	786
15-19	30.8	69.8	91	80.2	64	3.7	105
20-24	17.6	30.9	606	85.8	187	4.4	681
25-29	10.9	19.0	696	86.1	132	4.9	731
30-39	8.1	8.6	1,588	79.5	137	4.5	1,639
40-49	5.2	4.9	1,298	74.8	64	4.5	1,339
Marital status							
Never married	44.4	99.6	275	88.1	274	7.4	382
Married/living together	6.6	6.6	3,934	79.8	261	4.0	3,965
Divorced/separated/widowed	33.4	71.0	70	(66.6)	50	11.5	147
Residence							
Urban	17.1	28.0	729	88.7	204	7.5	782
Rural	7.9	10.7	3,550	79.3	381	3.9	3,713
Province							
Banteay Mean Chey	2.4	5.7	167	*	9	3.5	171
Kampong Cham	8.4	10.8	571	*	62	3.9	600
Kampong Chhnang	3.4	5.0	135	*	7	3.5	145
Kampong Speu	8.8	11.1	222	(76.3)	25	3.2	232
Kampong Thom	33.8	30.5	204	62.6	62	3.7	213
Kandal	8.3	14.2	424	(96.7)	60	3.0	448
Kratie	2.5	6.7	85	*	6	2.0	89
Phnom Penh	22.0	34.6	468	91.7	162	8.9	507
Prey Veng	10.6	12.7	312	(76.9)	40	5.5	320
Pursat	2.5	4.5	112	*	5	2.6	118
Siem Reap	1.4	8.2	305	*	25	3.5	316
Svay Rieng	2.6	3.0	170	*	5	3.0	178
Takeo	4.5	7.9	295	*	23	4.0	306
Otdar Mean Chey	0.9	7.0	46	*	3	1.7	48
Battambang/Krong Pailin	10.9	15.5	296	(82.8)	46	5.7	308
Kampot/Krong Kep	2.8	6.0	209	*	13	3.0	220
Krong Preah Sihanouk/ Kaoh Kong	16.8	20.4	103	(88.2)	21	11.3	113
Preah Vihear/Steung Treng	3.0	4.2	79	*	3	3.0	81
Mondol Kiri/Rattanak Kiri	6.5	10.6	77	*	8	4.9	83
Education							
No schooling	3.4	3.9	505	(62.1)	20	2.5	523
Primary	8.0	10.9	2,147	75.5	234	3.7	2,250
Secondary and higher	13.3	20.3	1,627	88.8	331	6.2	1,722
Wealth quintile							
Lowest	4.5	5.4	716	(39.7)	38	2.6	752
Second	6.0	8.2	806	75.2	66	2.5	824
Middle	5.5	7.6	838	72.3	64	3.0	877
Fourth	9.6	13.2	884	85.4	117	4.7	931
Highest	18.7	29.0	1,035	90.8	300	8.4	1,111
Total	9.5	13.7	4,279	82.6	585	4.5	4,495

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Sexual intercourse with a nonmarital, noncohabiting partner

Considering the other variables in Tables 17.8.1 and 17.8.2, higher-risk sex among both women and men is most prevalent among those living in urban areas and in Phnom Penh. Higher-risk sex increases directly with education and wealth: as education and wealth increase, so does risky sexual behavior. However, these relationships are apparent only for men, since so few women engage in higher-risk sexual activity.

As mentioned above, condom use is an important tool in the fight to curtail the spread of HIV/AIDS. Although truly effective protection would require condom use at every sexual encounter, the most important sexual encounters to cover are those considered to be "higher risk," i.e., sex with a nonmarital, noncohabiting partner in the 12 months preceding the survey. Table 17.8.2 shows that, among men reporting that they engaged in higher-risk sex during the 12-month period prior to the survey, 83 percent reported that a condom was used the last time they had higher-risk intercourse. The numbers of respondents reporting higher-risk sex are frequently quite small, making it difficult to assess differences in the prevalence of condom use across subgroups. However, the results suggest that, among men who engaged in higher-risk sex, condom use is highest among urban residents, those with a secondary or higher education, and those in the highest wealth quintile.

Finally, Tables 17.8.1 and 17.8.2 show that men who have ever been sexually active report having an average (mean number) of 5 lifetime sexual partners, five times the average reported by women who have ever been sexually active (1 partner). Divorced, separated or widowed men report the highest mean lifetime number of partners (12 partners); it is not known whether the comparatively large number of partners among these men is a cause or a consequence of their divorced/separated status. Provinces in which the mean number of lifetime partners among men is comparatively higher include Krong Preah Sihanouk/Kaoh Kong (11 partners) and Phnom Penh (9 partners).

17.4.2 Paid Sex

Paid sex is considered a special category of higher-risk sex. Male respondents in the 2005 CDHS were asked whether they had paid money in exchange for sex in the past 12 months or if any of their last three partners in the past 12 months was a commercial sex worker.

Six percent of men had engaged in paid sex in the 12 months before the survey (Table 17.9). The highest percentages of men reporting that they had engaged in paid sex are observed among men in Phnom Penh (15 percent) and in Krong Preah Sihanouk/Kaoh Kong (10 percent). Men between the ages of 20 and 29 are most likely to report having paid money for sex compared with other age groups. Urban men and the wealthiest men are much more likely to report having paid for sex in the past year. Divorced men are particularly at risk for having paid sex, with 22 percent having engaged in such a transaction in the past year. Where numbers are sufficiently high for analysis, the table indicates that nearly all men who paid for sex in the last year used a condom at last paid sex.

Table 17.9 Payment for sexual intercourse and condom use at last paid sexual intercourse: men

Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Cambodia 2005

	Payment for sexual intercourse in the past 12 months		Condom use at last paid sexual intercourse	
Background characteristic	Percentage who paid for sexual intercourse	Number of men	Percentage reporting condom use	Number of men who paid for sexual intercourse in the past 12 months
Age				
15-24	6.0	2,884	96.1	172
15-19	2.5	1,662	(99.8)	42
20-24	10.7	1,222	94.9	130
25-29	11.2	830	96.5	93
30-39	5.4	1,669	95.2	91
40-49	2.5	1,348	(93.2)	33
Marital status				
Never married	7.3	2,606	98.0	191
Married/living together	4.1	3,973	94.2	165
Divorced/separated/widowed	22.4	152	(90.4)	34
Residence				
Urban	12.7	1,133	95.9	144
Rural	4.4	5,598	95.6	246
Province				
Banteay Mean Chey	3.1	253	*	8
Kampong Cham	4.0	870	*	35
Kampong Chhnang	2.4	234	*	6
Kampong Speu	4.3	348	*	15
Kampong Thom	9.2	331	(96.7)	30
Kandal	7.1	682	(100.0)	48
Kratie	3.2	128	*	4
Phnom Penh	14.9	737	97.2	110
Prey Veng	5.9	482	*	28
Pursat	1.6	202	*	3
Siem Reap	3.7	461	*	17
Svay Rieng	1.2	281	*	3
Takeo	2.8	491	*	14
Otdar Mean Chey	4.4	69	*	3
Battambang/Krong Pailin	7.1	456	(100.0)	32
Kampot/Krong Kep	3.2	321	*	10
Krong Preah Sihanouk/ Kaoh Kong	9.9	160	(96.4)	16
Preah Vihear/Steung Treng	1.4	116	*	2
Mondol Kiri/Rattanak Kiri	4.3	110	*	5
Education				
No schooling	2.1	606	*	13
Primary	4.7	3,261	92.9	154
Secondary and higher	7.8	2,865	97.6	223
Wealth quintile				
Lowest	1.3	1,078	*	14
Second	3.0	1,218	(96.9)	36
Middle	2.9	1,351	(94.4)	39
Fourth	6.4	1,468	93.7	94
Highest	12.7	1,616	97.4	206
Total	5.8	6,731	95.7	389

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

17.5 TESTING FOR HIV

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so they can remain disease free. For those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future. Testing of pregnant women is especially important so action can be taken to prevent mother-to-child transmission.

To obtain information on the prevalence of HIV testing, all respondents were asked whether they had ever been tested for HIV. If they said that they had, respondents were asked whether they had received the results of their last test. Women giving birth in the two-year period before the survey were asked additional questions regarding testing that may have occurred as part of any antenatal care they received prior to the birth.

Tables 17.10.1 and 17.10.2 show that, among the adult population age 15-49, 10 percent of women and 15 percent of men have been tested for HIV at some time. The majority of women and men who were tested indicated that that they had received the results of their test. Three percent of women and 5 percent of men said that they had received results from an HIV test taken during the 12 months prior to the survey. Among both women and men, the proportions ever tested are higher among those age 20 and older than those younger than 20. Considering marital status, testing rates are highest among ever-married women, while for men testing is most likely among never-married men who have ever had sex (26 percent) and among widowed, divorced and separated men (36 percent). Considering the other characteristics for which results are presented in the tables, the highest testing rates are observed among urban residents, residents of Phnom Penh, those with a secondary or higher education, and those in the highest wealth quintile.

Table 17.10.1 Coverage of prior HIV testing: women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Cambodia 2005

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Age								
15-24	46.2	8.9	0.7	90.3	100.0	9.7	3.5	6,646
15-19	41.6	3.6	0.4	96.0	100.0	4.0	1.9	3,601
20-24	51.6	15.3	1.1	83.6	100.0	16.4	5.4	3,045
25-29	49.1	14.3	1.6	84.1	100.0	15.9	4.0	2,051
30-39	45.1	10.8	0.6	88.6	100.0	11.4	3.6	4,311
40-49	40.7	6.3	0.3	93.4	100.0	6.6	1.6	3,815
Marital status								
Never married	42.7	3.8	0.3	95.9	100.0	4.1	1.4	5,352
Ever had sex	*	*	*	*	*	*	*	10
Never had sex	42.7	3.8	0.3	95.9	100.0	4.1	1.4	5,341
Married/living together	46.2	11.8	0.9	87.3	100.0	12.7	4.0	10,087
Divorced/separated/widowed	45.3	14.6	0.6	84.7	100.0	15.3	4.1	1,384
Residence								
Urban	60.5	20.6	1.1	78.3	100.0	21.7	7.7	2,973
Rural	41.7	7.1	0.6	92.3	100.0	7.7	2.2	13,850
Province								
Banteay Mean Chey	38.2	6.8	0.6	92.6	100.0	7.4	3.0	650
Kampong Cham	35.9	4.1	0.3	95.6	100.0	4.4	0.6	2,116
Kampong Chhnang	75.5	5.3	0.8	94.0	100.0	6.0	2.6	556
Kampong Speu	40.7	9.0	1.2	89.8	100.0	10.2	3.1	870
Kampong Thom	31.6	6.8	0.7	92.4	100.0	7.6	2.8	799
Kandal	46.3	12.6	1.2	86.2	100.0	13.8	3.3	1,612
Kratie	25.5	4.3	0.5	95.2	100.0	4.8	0.8	331
Phnom Penh	55.3	26.4	1.1	72.6	100.0	27.4	9.2	1,896
Prey Veng	27.8	3.4	0.3	96.3	100.0	3.7	0.7	1,395
Pursat	55.6	4.2	0.6	95.2	100.0	4.8	1.1	480
Siem Reap	45.7	14.1	0.9	85.0	100.0	15.0	5.6	1,200
Svay Rieng	69.9	5.8	0.3	93.9	100.0	6.1	2.5	658
Takeo	40.6	6.5	0.8	92.7	100.0	7.3	2.9	1,102
Otdar Mean Chey	57.9	3.8	0.5	95.6	100.0	4.4	1.8	177
Battambang/Krong Pailin	68.0	10.8	0.3	88.8	100.0	11.2	3.1	1,247
Kampot/Krong Kep	37.1	4.5	0.5	94.9	100.0	5.1	1.8	839
Krong Preah Sihanouk/ Kaoh Kong	43.6	11.6	0.8	87.5	100.0	12.5	4.1	379
Preah Vihear/Steung Treng	31.9	3.1	1.2	95.7	100.0	4.3	0.8	301
Mondol Kiri/Rattanak Kiri	11.9	2.8	0.2	97.0	100.0	3.0	1.1	215
Education								
No schooling	29.9	5.8	0.4	93.8	100.0	6.2	2.1	3,270
Primary	42.2	8.1	0.8	91.1	100.0	8.9	2.4	9,389
Secondary and higher	63.1	15.4	0.7	83.8	100.0	16.2	5.8	4,165
Wealth quintile								
Lowest	28.5	2.9	0.2	96.9	100.0	3.1	1.0	3,017
Second	35.7	4.4	0.8	94.8	100.0	5.2	1.2	3,164
Middle	40.3	5.5	0.7	93.8	100.0	6.2	1.7	3,245
Fourth	51.0	9.0	0.7	90.3	100.0	9.7	3.1	3,308
Highest	63.3	21.8	1.0	77.2	100.0	22.8	7.6	4,089
Total	45.0	9.5	0.7	89.8	100.0	10.2	3.2	16,823

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes "don't know/missing'"

Table 17.10.2 Coverage of prior HIV testing: men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Cambodia 2005

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Age								
15-24	42.1	8.4	0.5	91.1	100.0	8.9	4.0	2,884
15-19	34.7	2.3	0.2	97.6	100.0	2.4	1.3	1,662
20-24	52.1	16.6	1.1	82.3	100.0	17.7	7.8	1,222
25-29	52.3	23.3	0.8	75.9	100.0	24.1	8.5	830
30-39	50.9	16.6	2.2	81.2	100.0	18.8	5.6	1,669
40-49	47.8	14.4	1.8	83.7	100.0	16.3	4.4	1,348
Marital status								
Never married	41.2	6.9	0.5	92.6	100.0	7.4	3.3	2,606
Ever had sex	65.1	24.4	1.8	73.8	100.0	26.2	12.1	384
Never had sex	37.0	3.9	0.3	95.8	100.0	4.2	1.7	2,222
Married/living together	49.6	17.0	1.7	81.3	100.0	18.7	5.9	3,973
Divorced/separated/widowed	65.1	33.2	2.5	64.3	100.0	35.7	13.6	152
Residence								
Urban	65.8	27.9	1.7	70.4	100.0	29.6	12.7	1,133
Rural	42.8	10.5	1.1	88.3	100.0	11.7	3.5	5,598
Province								
Banteay Mean Chey	42.1	18.1	4.5	77.4	100.0	22.6	7.9	253
Kampong Cham	31.8	10.7	0.3	89.0	100.0	11.0	3.8	870
Kampong Chhnang	31.6	11.4	1.2	87.4	100.0	12.6	4.0	234
Kampong Speu	22.1	4.0	1.5	94.4	100.0	5.6	1.2	348
Kampong Thom	32.0	7.6	1.1	91.3	100.0	8.7	3.6	331
Kandal	48.1	18.8	1.1	80.1	100.0	19.9	5.8	682
Kratie	44.3	5.1	0.9	94.0	100.0	6.0	3.1	128
Phnom Penh	65.0	32.8	1.6	65.6	100.0	34.4	14.8	737
Prey Veng	47.9	9.3	1.7	88.9	100.0	11.1	4.0	482
Pursat	30.7	5.5	0.5	93.9	100.0	6.1	1.9	202
Siem Reap	32.3	11.7	0.3	88.1	100.0	11.9	3.9	461
Svay Rieng	82.1	7.6	1.1	91.3	100.0	8.7	0.7	281
Takeo	37.3	8.1	1.0	90.9	100.0	9.1	2.2	491
Otdar Mean Chey	62.7	6.5	0.4	93.0	100.0	7.0	1.3	69
Battambang/Krong Pailin	84.8	15.0	2.2	82.8	100.0	17.2	6.8	456
Kampot/Krong Kep	58.5	9.4	1.0	89.7	100.0	10.3	2.8	321
Krong Preah Sihanouk/ Kaoh Kong	65.7	22.2	0.8	77.0	100.0	23.0	6.4	160
Preah Vihear/Steung Treng	36.2	9.4	2.8	87.8	100.0	12.2	2.4	116
Mondol Kiri/Rattanak Kiri	16.8	4.6	0.5	94.9	100.0	5.1	1.8	110
Education								
No schooling	22.3	5.6	0.7	93.7	100.0	6.3	1.6	606
Primary	38.4	9.6	1.2	89.2	100.0	10.8	3.3	3,261
Secondary and higher	61.2	19.6	1.4	79.1	100.0	20.9	7.8	2,865
Wealth quintile								
Lowest	29.5	4.9	0.8	94.3	100.0	5.7	1.9	1,078
Second	35.6	5.8	0.9	93.3	100.0	6.7	1.9	1,218
Middle	40.0	7.2	1.5	91.3	100.0	8.7	2.4	1,351
Fourth	49.8	14.3	1.0	84.7	100.0	15.3	5.8	1,468
Highest	69.3	29.4	1.8	68.8	100.0	31.2	11.1	1,616
Total 15-49	46.7	13.5	1.2	85.3	100.0	14.7	5.1	6,731

[1] Includes "don't know'"/"missing"

Table 17.11 presents data on HIV/AIDS information and counseling during antenatal care. Among women who gave birth in the past two years, 16 percent received information and counseling about HIV/AIDS during antenatal care for their most recent birth. Twelve percent of the women reported that they were offered and accepted an HIV test during antenatal care. Taking both these elements into account, the CDHS results indicate that only 8 percent of women giving birth during the two-year period prior to the survey were counseled about HIV, voluntarily accepted an offer of an HIV test, and received the test results. Women who gave birth during the two-year period before the survey were most likely to have received HIV/AIDS counseling and testing services during antenatal care if they lived in an urban area (26 percent), especially in Phnom Penh (35 percent). Other provinces where pregnant women were comparatively more likely to receive comprehensive HIV/AIDS counseling, testing and results include Siem Reap (22 percent) and Battambang/Krong Pailin (13 percent). Women with secondary or higher education were nearly four times more likely than those with no education, and three times as likely as those with primary education, to obtain full counseling and testing services during pregnancy. While access to full counseling and testing services does increase with wealth, it remains fairly low for all quintiles save for the wealthiest: pregnant women living in households that fall into the wealthiest quintile are more than three times as likely to have received counseling and testing for HIV than women in the fourth highest quintile, and are 20 times more likely to receive these services than women from the poorest quintile.

Table 17.11 Pregnant women counseled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV counseling during antenatal care for their most recent birth, and percentage who accepted an offer of HIV testing by whether they received their test results, according to background characteristics, Cambodia 2005

Background characteristic	Percentage who received HIV counseling during antenatal care[1]	Percentage who were offered and accepted an HIV test during antenatal care and who[2]: Received results	Did not receive results	Percentage who were counseled, were offered and who accepted an HIV test, and who received results[2]	Number of women who gave birth in the past two years [3]
Age					
15-24	18.2	13.5	0.7	10.1	1,096
15-19	18.5	12.6	1.7	10.0	164
20-24	18.2	13.7	0.6	10.1	932
25-29	14.1	9.8	2.0	6.6	750
30-39	15.2	9.1	0.6	7.2	1,006
40-49	11.6	7.7	0.0	6.1	230
Residence					
Urban	34.3	32.8	1.2	25.9	441
Rural	12.6	7.0	0.9	5.0	2,642
Province					
Banteay Mean Chey	8.2	10.3	0.5	5.8	141
Kampong Cham	2.9	1.5	0.0	0.6	387
Kampong Chhnang	12.7	4.2	0.3	1.2	131
Kampong Speu	3.8	2.7	0.6	2.1	178
Kampong Thom	13.9	6.4	2.0	5.2	165
Kandal	13.8	9.5	1.4	6.9	268
Kratie	2.6	1.7	0.4	0.4	75
Phnom Penh	42.2	41.9	3.8	34.6	252
Prey Veng	5.0	1.7	0.7	1.7	240
Pursat	12.8	7.0	0.7	3.6	90
Siem Reap	37.6	32.0	1.0	22.0	263
Svay Rieng	17.7	4.2	0.0	4.2	93
Takeo	18.5	9.0	0.7	5.7	173
Otdar Mean Chey	9.3	5.0	0.5	4.9	43
Battambang/Krong Pailin	30.7	13.6	0.0	13.2	213
Kampot/Krong Kep	10.5	1.5	1.4	0.5	139
Krong Preah Sihanouk/ Kaoh Kong	14.8	10.3	0.0	7.0	80
Preah Vihear/Steung Treng	1.9	0.8	1.2	0.3	88
Mondol Kiri/Rattanak Kiri	3.9	1.3	0.4	0.0	64
Education					
No schooling	10.0	6.9	0.0	4.7	707
Primary	13.5	8.2	1.1	6.0	1,831
Secondary and higher	30.7	24.4	1.6	18.8	545
Wealth quintile					
Lowest	6.8	2.9	0.0	1.4	820
Second	11.0	4.5	1.4	4.0	670
Middle	13.7	7.2	0.8	4.2	568
Fourth	19.4	11.2	0.4	8.0	510
Highest	34.7	34.7	2.5	28.0	514
Total	15.7	10.7	0.9	8.0	3,083

[1] In this context, "counseled" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus.
[2] Only women who were offered the test are included here. Women who were either required or asked for the test are excluded from the numerator of this measure.
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

17.6 Reports of Recent Sexually Transmitted Infections

Information about the incidence of sexually transmitted infections (STIs) is not only useful as a marker of unprotected sexual intercourse but also as a cofactor for HIV transmission. The 2005 CDHS asked respondents who had ever had sex whether they had had an STI in the past 12 months. They were also asked whether, in the past year, they had experienced a genital sore or ulcer, and whether they had any genital discharge. These symptoms have been shown useful in identifying STIs in men. They are less easily interpreted in women because women are likely to experience more non-STI conditions of the reproductive tract that produce a discharge.

Table 17.12 shows that about 10 percent of women and 2 percent of men who have ever been sexually active had an STI and/or STI symptoms in the 12 months prior to the survey. Those reporting STI symptoms were somewhat more likely to say they had had an abnormal genital discharge than to report a genital ulcer.

Figure 17.2 shows that, among those reporting a sexually transmitted infection or symptom thereof in the past year, women are more likely to seek treatment than men. Moreover, among those who do seek treatment, women are more likely to seek treatment from a health professional than are men.

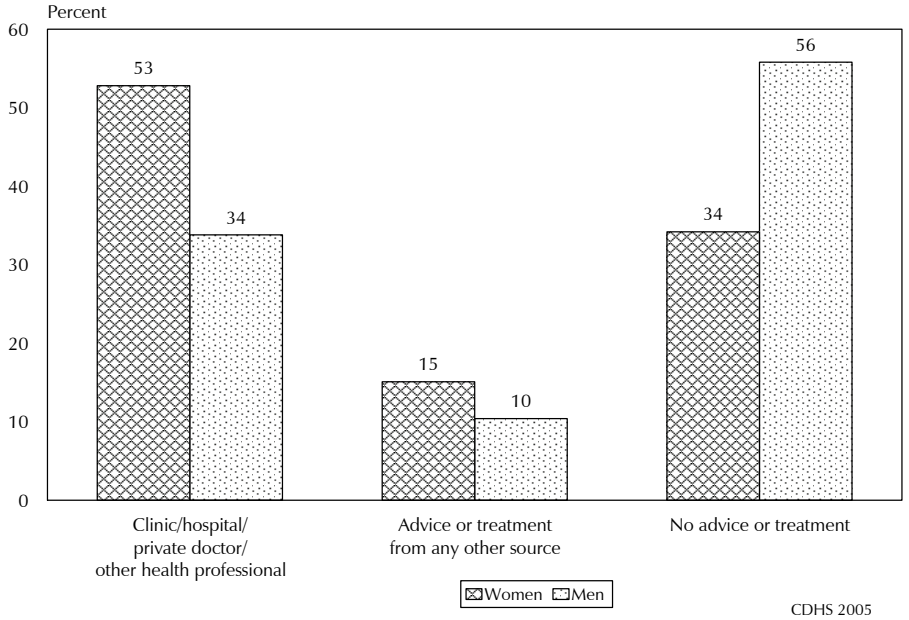
Table 17.12 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Cambodia 2005

	Women					Men				
	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
Background characteristic	STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse
Age										
15-24	3.6	7.4	3.9	9.8	2,199	0.7	1.8	1.4	2.9	789
15-19	5.5	8.8	4.3	11.8	392	0.0	0.6	1.9	2.5	105
20-24	3.2	7.1	3.8	9.4	1,807	0.8	2.0	1.3	3.0	683
25-29	2.5	8.1	4.7	10.8	1,688	0.7	2.1	0.6	2.7	733
30-39	3.7	7.3	4.7	10.1	3,976	0.6	1.0	1.0	2.1	1,645
40-49	2.6	6.4	3.5	8.5	3,618	0.5	0.9	0.1	1.1	1,343
Marital status										
Never married	*	*	*	*	10	0.8	1.5	1.1	2.1	384
Married/living together	3.2	7.1	4.1	9.7	10,087	0.6	1.2	0.7	1.9	3,973
Divorced/separated/ widowed	2.5	7.2	4.9	9.2	1,384	0.8	3.5	1.5	4.2	152
Residence										
Urban	3.2	4.8	2.8	7.6	1,812	1.4	1.4	1.5	3.5	784
Rural	3.1	7.6	4.4	10.1	9,669	0.4	1.3	0.6	1.7	3,725
Province										
Banteay Mean Chey	6.9	7.1	4.7	12.8	462	0.6	0.5	0.0	1.2	171
Kampong Cham	3.9	14.9	11.0	17.1	1,498	0.0	0.0	0.0	0.0	603
Kampong Chhnang	2.1	2.3	1.8	3.6	385	0.6	0.0	0.0	0.6	148
Kampong Speu	1.1	8.2	10.3	15.2	628	0.0	0.9	0.9	1.3	232
Kampong Thom	6.4	11.4	7.5	16.5	555	0.3	0.7	0.3	0.7	213
Kandal	5.4	4.2	1.6	8.5	1,062	0.3	1.0	0.3	1.0	448
Kratie	1.9	6.6	2.9	8.1	239	3.0	0.0	0.4	3.0	89
Phnom Penh	2.8	3.3	0.5	4.7	1,118	1.1	1.4	2.4	4.0	510
Prey Veng	1.3	9.5	4.3	11.0	992	1.3	5.2	0.7	5.2	320
Pursat	1.4	6.9	6.5	8.4	310	0.4	1.0	0.4	1.4	118
Siem Reap	3.5	9.8	2.1	12.1	807	0.5	0.0	0.0	0.5	316
Svay Rieng	0.5	2.2	0.5	2.3	474	0.9	1.4	0.9	2.3	178
Takeo	1.1	3.4	2.2	4.7	776	1.0	5.5	1.9	6.0	306
Otdar Mean Chey	2.7	2.2	1.0	3.1	131	0.6	0.6	0.6	0.6	48
Battambang/Krong Pailin	4.9	3.9	1.9	6.0	786	1.1	0.9	0.4	2.0	312
Kampot/Krong Kep	2.0	2.0	0.7	3.1	582	0.3	0.0	0.9	1.3	220
Krong Preah Sihanouk/ Kaoh Kong	2.6	5.1	1.7	6.8	277	0.5	1.6	3.2	4.2	113
Preah Vihear/Steung Treng	3.5	17.5	7.4	20.6	229	0.0	0.0	0.0	0.0	81
Mondol Kiri/ Rattanak Kiri	2.0	8.1	7.0	8.7	170	0.0	0.3	0.0	0.3	83
Education										
No schooling	3.0	9.2	5.0	11.6	2,718	0.3	1.7	0.3	1.8	526
Primary	3.3	7.1	4.2	9.6	6,745	0.7	1.3	0.7	1.8	2,253
Secondary and higher	2.7	4.7	3.0	7.3	2,018	0.6	1.1	1.0	2.4	1,731
Wealth quintile										
Lowest	2.8	9.8	5.3	12.2	2,280	0.2	1.6	0.6	1.8	754
Second	3.4	9.0	4.7	11.3	2,322	0.7	1.5	0.4	2.2	825
Middle	3.4	6.2	4.4	9.0	2,217	0.5	1.6	0.4	2.1	879
Fourth	3.3	6.1	3.8	8.5	2,237	0.7	0.7	0.9	1.5	938
Highest	3.0	4.8	2.9	7.4	2,426	0.8	1.2	1.2	2.5	1,114
Total	3.2	7.2	4.2	9.7	11,481	0.6	1.3	0.7	2.0	4,509

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Figure 17.2 **Women and Men Seeking Treatment for STIs**



17.7 INJECTIONS

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effect of unsafe practices such as reuse of injection equipment. As a consequence, the proportion of injections given with reused injection equipment is an important prevention indicator in an initiative to control the spread of HIV/AIDS.

Table 17.13 presents data on the prevalence of injections among respondents. Respondents were asked if they had had any injections given by a health worker in the 12 months preceding the survey, and if so, the number of injections they had received and whether their last injection was given with a syringe from a new, unopened package. It should be noted that medical injections can be self-administered (e.g., insulin for diabetes). These injections were not included in the calculations.

Women are more likely than men to report receiving at least one injection (36 percent and 29 percent, respectively). The average number of injections received from a health provider was 2 injections among women and 1 injection among men.

Table 17.13 shows that the largest variations in the injection prevalence indicator are across regions. Among women, for example, the percentage reporting they had received at least one injection from a health worker during the 12 months prior to the survey varies from a low of 16 percent in Mondol Kiri/Rattanak Kiri to a high of 60 percent among women in Otdar Mean Chey. Among men, the likelihood of having received an injection is lowest in Kratie (9 percent) and highest in Kampong Cham (44 percent). Urban residents are somewhat less likely than rural residents to have received at least one injection from a health provider. The associations between receiving at least one injection from a health provider and background characteristics such as education and wealth are not consistent in direction.

The majority of recent injections (98 percent among women and 96 percent among men) were given with a needle and syringe taken from a newly opened package. Women living in Krong Preah Sihanouk/Kaoh Kong are the least likely to report that the injection was given using a needle and syringe from a previously unopened package (84 percent).

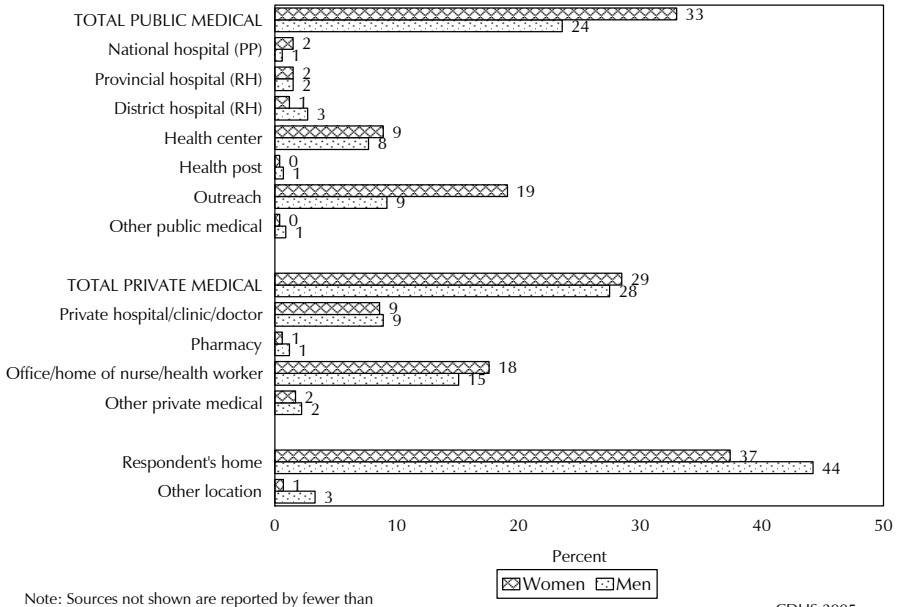
Table 17.13 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the last 12 months, the average number of medical injections per person in the last 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Cambodia 2005

	Women					Men				
Background characteristic	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women receiving medical injections in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of men	For last injection, syringe and needle taken from a new, unopened package	Number of men receiving medical injections in the past 12 months
Age										
15-24	34.3	1.7	6,646	98.0	2,283	28.1	1.1	2,884	96.7	812
15-19	30.5	1.2	3,601	97.6	1,099	28.2	0.8	1,662	96.9	469
20-24	38.9	2.4	3,045	98.3	1,184	28.1	1.5	1,222	96.5	343
25-29	39.0	2.6	2,051	98.0	799	26.9	1.5	830	94.8	223
30-39	37.7	2.7	4,311	97.9	1,627	27.9	1.3	1,669	96.1	465
40-49	34.4	2.8	3,815	97.4	1,313	30.8	2.1	1,348	97.0	415
Residence										
Urban	32.0	2.3	2,973	97.6	951	26.0	1.5	1,133	97.3	295
Rural	36.6	2.3	13,850	97.9	5,072	28.9	1.4	5,598	96.2	1,620
Province										
Banteay Mean Chey	37.7	2.3	650	98.1	245	26.9	1.8	253	100.0	68
Kampong Cham	37.2	2.7	2,116	98.3	788	44.0	1.1	870	92.5	383
Kampong Chhnang	27.8	2.9	556	97.3	154	17.1	1.1	234	93.9	40
Kampong Speu	44.8	2.0	870	95.4	390	24.2	0.7	348	97.7	84
Kampong Thom	43.7	2.6	799	96.9	349	13.1	0.8	331	(98.8)	43
Kandal	31.7	3.2	1,612	100.0	511	33.6	2.6	682	97.2	229
Kratie	38.1	1.7	331	98.9	126	9.3	0.6	128	(89.3)	12
Phnom Penh	31.9	2.8	1,896	99.1	605	25.7	1.4	737	97.8	189
Prey Veng	31.8	2.2	1,395	96.2	443	24.0	2.0	482	100.0	116
Pursat	33.8	1.5	480	98.7	162	33.6	2.5	202	93.2	68
Siem Reap	39.9	1.3	1,200	97.9	479	29.3	0.8	461	98.1	135
Svay Rieng	48.6	3.0	658	98.7	319	30.5	1.8	281	97.9	86
Takeo	49.4	2.7	1,102	98.8	544	29.9	1.3	491	97.3	147
Otdar Mean Chey	60.1	1.6	177	99.6	107	36.8	1.7	69	94.0	25
Battambang/Krong Pailin	30.8	1.9	1,247	98.0	384	31.8	1.4	456	97.8	145
Kampot/Krong Kep	24.9	1.2	839	95.6	209	21.3	1.1	321	93.6	68
Krong Preah Sihanouk/ Kaoh Kong	19.1	1.9	379	84.3	72	25.4	0.7	160	97.9	41
Preah Vihear/Steung Treng	33.5	1.2	301	96.3	101	15.3	0.4	116	100.0	18
Mondol Kiri/Rattanak Kiri	15.7	0.7	215	98.0	34	16.4	0.9	110	95.0	18
Education										
No schooling	32.4	2.1	3,270	96.7	1,061	24.9	1.1	606	93.2	151
Primary	37.1	2.3	9,389	98.0	3,482	27.3	1.3	3,261	95.4	890
Secondary and higher	35.5	2.6	4,165	98.2	1,480	30.5	1.6	2,865	98.0	874
Wealth quintile										
Lowest	35.6	1.9	3,017	97.4	1,075	24.6	1.0	1,078	95.4	265
Second	35.9	1.9	3,164	97.0	1,136	25.9	1.2	1,218	96.8	316
Middle	38.1	2.2	3,245	98.1	1,237	30.2	1.4	1,351	95.8	408
Fourth	35.7	2.5	3,308	98.3	1,180	31.9	1.4	1,468	96.1	468
Highest	34.1	2.9	4,089	98.1	1,394	28.4	1.9	1,616	97.5	459
Total	35.8	2.3	16,823	97.8	6,022	28.5	1.4	6,731	96.4	1,915

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist or other health worker. Figures in parentheses are based on 25-49 unweighted cases.

Figure 17.3 Type of Facility Where Last Medical Injection Was Received

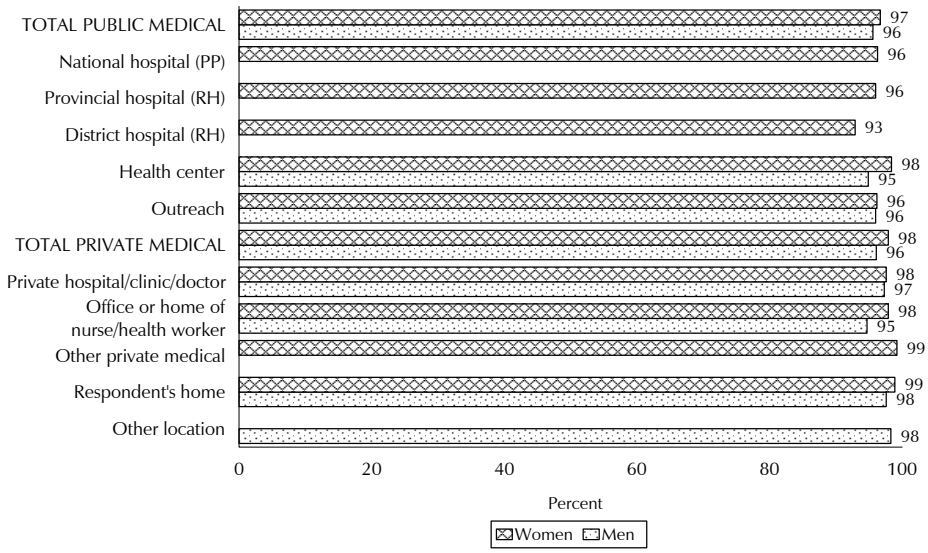


Note: Sources not shown are reported by fewer than 0.5 percent of women and men.

CDHS 2005

It is interesting to note that for both men and women, the largest proportion of most recently received medical injections were administered in a home, rather than a medical, setting. Among women, the next most common places to obtain a medical injection were at outreach facilities (19 percent) or at the office or home of a nurse or medical worker (18 percent). Among men, the next most common place to obtain a medical injection was also at the office or home of a nurse or medical worker (15 percent). Figure 17.4 demonstrates that the vast majority of injections are administered with a syringe and needle taken from a new, unopened package; only at District hospitals do proportions of injections administered with new equipment fall below 95 percent.

Figure 17.4 Percentage Whose Last Injection Was Given With a Syringe and Needle Taken From a New, Unopened Package



Note: Sources not shown are reported by fewer than 50 unweighted cases.

CDHS 2005

17.8 HIV/AIDS-Related Knowledge and Behavior Among Youth

Knowledge of HIV/AIDS issues and related sexual behavior among youth age 15-24 is of particular interest because the period between sexual initiation and marriage is for many young people a time of sexual experimentation that may involve high-risk behaviors. This section considers a number of issues that relate to both transmission and prevention of HIV/AIDS among youth, including the extent to which youth have comprehensive knowledge of HIV/AIDS transmission and prevention modes and knowledge of a source where they can obtain condoms. Issues such as abstinence, age at sexual debut, and condom use are also covered in this section.

17.8.1 Knowledge about HIV/AIDS and Source for Condoms

Knowledge of how HIV is transmitted is crucial to enabling young people to avoid AIDS. Young people are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviors. As discussed earlier, comprehensive knowledge is defined as knowing that: 1) people can reduce their chances of getting the AIDS virus by having sex with only one uninfected, faithful partner and by using condoms consistently; 2) a healthy-looking person can have the AIDS virus; and 3) HIV cannot be transmitted by mosquito bites or by sharing food with a person who has AIDS.

Table 17.14 shows that only half of women and nearly half of men age 15-24 know all of these facts about HIV/AIDS. The level of comprehensive knowledge about HIV/AIDS does not vary consistently by age within the youth population. Among young women, comprehensive knowledge is somewhat higher among the never-married than the ever-married (52 percent compared with 47 percent). Among young men, comprehensive knowledge is highest among those who have never married but have ever had sex (60 percent).

As expected, comprehensive HIV/AIDS knowledge is much more common among urban than rural youth. Among young women, the level of comprehensive knowledge ranges from a low of 11 percent in Mondol Kiri/Rattanak Kiri to a high of 80 percent in Battambang/Krong Pailin. Among young men, comprehensive knowledge is lowest in Svay Rieng (3 percent) and highest in Kandal (75 percent). Young women with a secondary education or higher are four times as likely as those with no schooling to have comprehensive knowledge of HIV/AIDS, while highly educated young men are three times as likely as those with no education to have comprehensive knowledge. Comprehensive knowledge about HIV/AIDS among youth increases with household wealth.

Because of the important role that condoms play in combating the transmission of HIV, respondents were asked whether they knew where condoms could be obtained. Only responses about "formal" sources were counted; friends and family and other similar sources were not included.

As shown in Table 17.14, young women are more likely than young men to know where to obtain a condom (53 and 47 percent, respectively). Among either sex, knowledge of a condom source tends to increase with age. Ever-married young women are more likely to know about a source for condoms than those who have never married, while among young men, it is the never-married men who have ever had sex who are the most likely to have this knowledge. Among both young women and men, those in urban areas are more likely than those in rural areas to know of a condom source. Knowledge of a condom source among women is lowest in Mondol Kiri/Rattanak Kiri (19 percent) and highest in Battambang/Krong Pailin (93 percent); among men, this knowledge is least in Banteay Mean Chey (18 percent) and greatest in Battambang/Krong Pailin (83 percent). Consistent with the patterns observed for other indicators, youth who are better educated and live in wealthier households are more likely than other youth to know a source of condoms.

Table 17.14 Comprehensive knowledge about AIDS and of a source of condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Cambodia 2005

Background characteristic	Women 15-24			Men 15-24		
	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of women	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of men
Age						
15-19	50.2	50.2	3,601	41.4	37.5	1,662
15-17	48.1	48.0	2,299	40.0	33.7	1,105
18-19	54.0	53.9	1,303	44.2	45.0	557
20-24	49.8	55.2	3,045	50.4	59.3	1,222
20-22	48.7	52.8	1,756	48.1	59.3	714
23-24	51.3	58.5	1,288	53.7	59.2	508
Marital status						
Never married	51.6	49.5	4,454	45.0	44.3	2,367
Ever had sex	*	*	7	60.0	78.9	272
Never had sex	51.7	49.4	4,447	43.1	39.8	2,095
Ever married	46.8	58.6	2,192	46.1	58.0	517
Residence						
Urban	62.1	56.4	1,318	57.9	67.6	509
Rural	47.1	51.5	5,328	42.5	42.3	2,375
Province						
Banteay Mean Chey	33.3	32.0	247	9.0	18.4	99
Kampong Cham	34.7	36.5	788	41.5	41.2	326
Kampong Chhnang	66.3	91.0	206	68.7	42.1	104
Kampong Speu	47.0	38.9	331	36.1	46.1	158
Kampong Thom	38.7	32.7	295	26.2	30.7	150
Kandal	63.0	45.9	635	74.7	35.2	308
Kratie	36.0	28.3	115	53.7	59.0	43
Phnom Penh	73.0	49.1	877	57.9	74.6	350
Prey Veng	38.0	45.2	475	39.1	34.8	192
Pursat	40.0	53.1	223	25.4	21.2	97
Siem Reap	35.7	64.1	512	44.7	34.8	204
Svay Rieng	54.4	73.3	231	3.4	55.9	126
Takeo	56.1	50.9	381	40.9	43.0	205
Otdar Mean Chey	47.5	71.4	73	59.9	74.0	27
Battambang/Krong Pailin	79.7	93.4	564	51.3	82.5	206
Kampot/Krong Kep	36.7	55.1	344	57.2	46.6	132
Krong Preah Sihanouk/ Kaoh Kong	33.4	55.1	148	63.5	67.2	66
Preah Vihear/Steung Treng	18.6	55.2	115	23.1	28.9	44
Mondol Kiri/Rattanak Kiri	10.8	18.6	85	16.4	24.6	44
Education						
No schooling	18.3	39.8	771	19.9	24.4	141
Primary	41.4	47.6	3,480	29.8	34.8	1,322
Secondary and higher	72.9	63.7	2,396	62.1	60.1	1,421
Wealth quintile						
Lowest	26.1	42.7	1,036	26.0	31.1	441
Second	35.3	50.7	1,143	33.3	36.0	489
Middle	45.7	49.5	1,261	41.7	42.8	590
Fourth	59.7	56.3	1,335	48.9	44.6	630
Highest	68.4	58.3	1,871	64.4	68.2	735
Total 15-24	50.1	52.5	6,646	45.2	46.7	2,884

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 17.2, 17.3.1, and 17.3.2.
[2] Friends, family members, and home are not considered sources for condoms.

17.8.2 Age at First Sex and Condom Use at First Sexual Intercourse

Information from the CDHS can be used to look at several important issues relating to the initiation of sexual activity among youth including age at first sex and condom use at first sexual intercourse.

Table 17.15 shows the proportions of women and men in the 15-24 age cohort who had sex before age 15 and before age 18. One percent of young women and less than one percent of young men had sex by age 15, while 17 percent of young women and 7 percent of young men had sex by age 18.

Table 17.15 Age at first sexual intercourse among youth

Percentage of young women and of young men age 15-24 who had sexual intercourse before age 15 and percentages of young women and of young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Cambodia 2005

	Women 15-24		Women 18-24		Men 15-24		Men 18-24	
Background characteristic	Percentage who had sexual intercourse before age 15	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men
Age								
15-19	0.7	3,601	na	na	0.4	1,662	na	na
15-17	0.5	2,299	na	na	0.6	1,105	na	na
18-19	0.9	1,303	12.7	1,303	0.0	557	5.9	557
20-24	1.2	3,045	19.0	3,045	0.3	1,222	8.0	1,222
20-22	1.1	1,756	17.5	1,756	0.0	714	7.0	714
23-24	1.2	1,288	21.0	1,288	0.8	508	9.6	508
Marital status								
Never married	0.0	4,454	0.0	2,250	0.3	2,367	2.9	1,265
Ever married	2.7	2,192	35.4	2,098	0.4	517	18.5	514
Knows condom source[1]								
Yes	0.8	3,488	18.4	2,384	0.6	1,348	8.3	975
No	1.0	3,158	15.5	1,964	0.1	1,536	6.2	804
Residence								
Urban	1.2	1,318	13.9	890	1.1	509	8.4	338
Rural	0.8	5,328	17.9	3,458	0.2	2,375	7.1	1,441
Province								
Banteay Mean Chey	0.3	247	17.0	168	0.0	99	1.9	54
Kampong Cham	0.0	788	14.2	541	0.0	326	5.3	220
Kampong Chhnang	0.5	206	18.7	130	0.0	104	3.8	63
Kampong Speu	1.7	331	29.1	215	0.0	158	4.8	93
Kampong Thom	0.2	295	11.1	193	0.0	150	5.0	91
Kandal	1.3	635	14.9	426	0.0	308	9.7	184
Kratie	1.0	115	13.9	73	0.0	43	1.4	25
Phnom Penh	1.4	877	13.3	605	2.0	350	11.9	245
Prey Veng	0.5	475	17.5	309	0.0	192	7.9	102
Pursat	0.5	223	16.9	148	0.0	97	6.8	57
Siem Reap	0.6	512	15.8	339	0.0	204	4.0	131
Svay Rieng	0.3	231	22.2	135	0.0	126	1.2	69
Takeo	0.0	381	15.5	234	0.0	205	2.3	121
Otdar Mean Chey	2.3	73	18.5	44	0.2	27	1.1	16
Battambang/Krong Pailin	1.4	564	18.2	345	1.3	206	12.4	133
Kampot/Krong Kep	0.2	344	21.8	215	0.0	132	13.2	75
Krong Preah Sihanouk/ Kaoh Kong	1.5	148	22.1	101	0.0	66	10.0	42
Preah Vihear/Steung Treng	1.6	115	20.3	71	0.0	44	7.9	27
Mondol Kiri/Rattanak Kiri	9.0	85	40.5	55	0.6	44	20.2	31
Education								
No schooling	2.7	771	23.7	629	0.2	141	14.1	108
Primary	0.9	3,480	20.7	2,305	0.3	1,322	8.9	771
Secondary and higher	0.3	2,396	8.3	1,414	0.4	1,421	5.3	901
Wealth quintile								
Lowest	0.9	1,036	23.6	695	0.0	441	8.1	263
Second	1.1	1,143	19.8	754	0.1	489	5.6	303
Middle	0.5	1,261	16.8	815	0.4	590	4.8	350
Fourth	0.9	1,335	16.7	832	0.3	630	6.0	375
Highest	1.0	1,871	12.3	1,252	0.8	735	11.0	489
Total 15-24	0.9	6,646	17.1	4,348	0.3	2,884	7.4	1,779

[1] Friends, family members, and home are not considered sources for condoms.
na = Not available

In Cambodia, it is rare for women to have sex prior to marriage; therefore, since the median age at first marriage among Cambodian women is 20.1 years, very few women report that they have had sex before the age of 15. The exception is found among women who live in Mondol Kiri/Rattanak Kiri, who, perhaps by virtue of having a comparatively younger median age at first marriage of 18.6 years, are most likely to report having had sexual intercourse before the age of 15 (9 percent).

Among women age 18-24, young women age 18-19 were less likely than those age 20-24 to say they had initiated sex before age 18. Young women in urban areas are slightly more likely to have had sex by age 15 than young women in rural areas; however, rural girls age 18-24 are more likely than urban girls of the same age to have had sex by age 18. While only 11 percent of women age 18-24 in Kampong Thom report having had sex before the age of 18, the corresponding figure for women in Mondol Kiri/Rattanak Kiri is 41 percent. Education and wealth have a negative association with early initiation of sexual activity: as education and wealth increase, the proportion of women reporting sex before the age of 18 decreases.

Differentials in these indicators for young men tend to be minor. This is at least in part because the proportions initiating sexual activity at an early age are not large in most subgroups with the exception of those living in the provinces of Mondol Kiri/Rattanak Kiri, and to a lesser extent those living in Kampot/Krong Kep and Battambang/Krong Pailin (20 percent, 13 percent, and 12 percent, respectively, report having had sex before the age of 18).

To assess the extent of condom use from the beginning of sexual exposure, respondents age 15-24 were asked whether they had used condoms the first time they had sex. Table 17.16 shows that 3 percent of young women and 42 percent of young men used condoms during their first sexual encounter. It is not surprising that so few women report condom use at first sex, since most Cambodian women are newly married at the time of their first sex, and are therefore unlikely to use contraception. Never-married men were much more likely than ever-married youth to have used a condom during their first sexual intercourse (84 percent compared with 21 percent). Higher educational attainment, greater wealth, and urban residence are related to a greater likelihood that condoms were used the first time a young man had sex.

Table 17.16 Condom use at first sexual intercourse among youth

Among young women and young men age 15-24 who have ever had sexual intercourse, the percentage who used a condom the first time they had sexual intercourse, by background characteristics, Cambodia 2005

Background characteristic	Women		Men	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Age				
15-19	3.0	392	57.7	105
15-17	1.3	95	*	23
18-19	3.5	296	57.9	82
20-24	3.5	1,807	39.9	683
20-22	3.1	877	47.4	321
23-24	3.8	930	33.3	363
Marital status				
Never married	*	7	83.6	272
Ever married	3.2	2,192	20.6	517
Knows condom source[1]				
Yes	4.6	1,289	53.1	514
No	1.7	910	22.1	274
Residence				
Urban	7.0	362	70.8	177
Rural	2.7	1,837	34.1	612
Province				
Banteay Mean Chey	0.3	86	(27.4)	23
Kampong Cham	1.2	302	(17.6)	89
Kampong Chhnang	6.6	65	(19.3)	25
Kampong Speu	1.1	132	(46.9)	44
Kampong Thom	4.6	102	(35.9)	41
Kandal	5.5	172	49.9	92
Kratie	5.7	40	*	8
Phnom Penh	3.1	235	76.7	128
Prey Veng	0.8	164	*	35
Pursat	1.5	69	(15.0)	17
Siem Reap	2.3	179	48.9	63
Svay Rieng	8.7	78	(23.6)	26
Takeo	2.1	109	(26.5)	31
Otdar Mean Chey	0.4	29	(20.9)	7
Battambang/Krong Pailin	8.0	164	54.4	75
Kampot/Krong Kep	5.5	118	(29.2)	33
Krong Preah Sihanouk/ Kaoh Kong	7.1	57	(60.2)	23
Preah Vihear/Steung Treng	1.7	51	(12.6)	12
Mondol Kiri/Rattanak Kiri	2.5	46	32.0	18
Education				
No schooling	2.0	433	15.5	71
Primary	3.2	1,282	33.7	384
Secondary and higher	5.2	484	57.8	334
Wealth quintile				
Lowest	3.1	437	16.7	128
Second	1.2	442	23.9	128
Middle	2.8	424	24.7	139
Fourth	3.5	420	38.6	139
Highest	6.2	475	76.2	254
Total 15-24	3.4	2,199	42.3	789

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Friends, family members, and home are not considered sources for condoms.

17.8.3 Recent Sexual Activity

The period between age at first sex and age at marriage is often a time of sexual experimentation. Unfortunately, in the era of HIV/AIDS, it can also be a risky time. Table 17.17 presents data on the percentage of never-married young women and men age 15-24 who have not yet engaged in sex, the percentage who had sex in the 12 months preceding the survey, and the percentage who used condoms during their most recent sexual intercourse.

The great majority of never-married young women (99.8 percent) and men (89 percent) reported that they had never had sex, and, as a result, the proportions reporting recent sexual activity (i.e., within the 12-month period before the survey) are low (0.1 percent among young women and 8 percent among young men).

Given the comparatively small proportion of never-married young women reporting premarital sexual intercourse, differentials in this indicator are generally minimal. Among never-married young men, the proportion reporting premarital sexual activity tends to increase with age, education, and wealth, and is higher among urban than rural residents. Looking at provincial variations, Phnom Penh has the highest proportion of never-married young men reporting premarital sex (26 percent).

Table 17.17 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among never-married men age 15-24 who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, Cambodia 2005

	Never-married women age 15-24			Never-married men age 15-24				
							Among men who had sexual intercourse in the past 12 months:	
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married women	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married men	Percentage who used a condom at last sexual intercourse	Number of men
Age								
15-19	99.9	0.1	3,211	95.6	3.6	1,628	81.9	59
15-17	100.0	0.0	2,204	98.2	1.5	1,102	*	17
18-19	99.9	0.1	1,007	90.4	8.0	526	(86.4)	42
20-24	99.6	0.1	1,243	72.8	18.6	739	90.7	138
20-22	99.9	0.0	880	76.8	16.8	512	96.2	86
23-24	99.0	0.5	362	63.9	22.6	227	(81.4)	51
Knows condom source[1]								
Yes	99.8	0.1	2,203	79.5	15.2	1,048	90.9	159
No	99.9	0.1	2,251	95.6	2.9	1,319	(75.8)	38
Residence								
Urban	99.7	0.1	959	76.0	18.7	438	92.6	82
Rural	99.9	0.1	3,495	91.3	6.0	1,930	84.8	115
Province								
Banteay Mean Chey	100.0	0.0	161	93.2	5.2	82	*	4
Kampong Cham	100.0	0.0	486	92.1	4.6	257	*	12
Kampong Chhnang	100.0	0.0	141	94.9	1.0	83	*	1
Kampong Speu	100.0	0.0	199	88.2	8.4	130	*	11
Kampong Thom	100.0	0.0	192	88.9	8.0	123	*	10
Kandal	100.0	0.0	463	84.3	11.9	256	*	30
Kratie	100.0	0.0	75	97.4	2.6	36	*	1
Phnom Penh	99.7	0.0	644	73.7	21.1	302	(96.2)	64
Prey Veng	100.0	0.0	311	97.7	1.4	161	*	2
Pursat	100.0	0.0	154	99.1	0.9	81	*	1
Siem Reap	100.0	0.0	332	88.0	8.1	161	*	13
Svay Rieng	98.4	1.6	156	95.0	2.4	106	*	3
Takeo	100.0	0.0	273	96.8	2.9	180	*	5
Otdar Mean Chey	99.1	0.0	44	96.0	2.8	21	*	1
Battambang/Krong Pailin	100.0	0.0	400	79.5	15.4	165	*	25
Kampot/Krong Kep	99.5	0.0	227	94.6	3.3	105	*	3
Krong Preah Sihanouk/ Kaoh Kong	99.6	0.4	91	81.8	14.1	54	*	8
Preah Vihear/Steung Treng	99.1	0.9	65	96.0	2.9	34	*	1
Mondol Kiri/Rattanak Kiri	100.0	0.0	39	80.4	7.3	32	*	2
Education								
No schooling	100.0	0.0	338	93.8	3.7	75	*	3
Primary	99.9	0.1	2,200	90.2	6.9	1,040	79.4	72
Secondary and higher	99.8	0.0	1,916	86.8	9.8	1,252	93.5	122
Wealth quintile								
Lowest	100.0	0.0	598	93.5	3.4	335	*	11
Second	99.9	0.1	701	95.2	3.7	379	*	14
Middle	100.0	0.0	837	94.0	3.6	479	*	17
Fourth	99.9	0.0	916	91.2	5.6	537	(86.5)	30
Highest	99.6	0.2	1,402	75.5	19.4	637	96.6	124
Total 15-24	99.8	0.1	4,454	88.5	8.3	2,367	88.1	197

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Friends, family members, and home are not considered sources for condoms.

17.8.4 Higher-Risk Sex

The most common mode of transmission of HIV in Cambodia is through unprotected sex with an infected person. To prevent HIV/AIDS transmission, it is important that young people practice safe sex through the much-advocated ABC method (abstinence, being faithful to one uninfected partner, and condom use). Tables 17.18.1 and 17.18.2 present data on the percentage of young people engaging in higher-risk sex (sex with a nonmarital, noncohabiting partner) in the 12-month period preceding the survey, and the rate of condom use in these higher-risk sexual encounters (Table 17.18.2 only). Among sexually active youth age 15-24, less than 1 percent of women and 36 percent of men engaged in higher-risk sexual activity in the past 12 months. Due to the small numbers of women who have engaged in higher-risk sex, no data can be shown regarding condom use at last high risk sexual intercourse. Eighty-four percent of these men reported condom use in their last higher-risk encounter.

Among young men, there are considerable differences in the prevalence of higher-risk sex by background characteristics. Wealthier youth and youth with a secondary or higher education are much more likely than those with less wealth or schooling to have engaged in higher-risk sex. Urban youth are considerably more likely than rural youth to have engaged in risky sexual behavior.

Figure 17.5 shows that most young women age 15-24 have not yet had sexual intercourse; among those who have had sex, it has been with one partner only and no condom has been used. Virtually all women who have had sex are married (see Table 17.17.1). Figure 17.5 also demonstrates that the vast majority of men age 15-19 have not yet had sexual intercourse, but by age 20-24, over half have engaged in sexual intercourse. Nevertheless, the majority of men age 15-24 have not had sex; of those who have, many are married (see Table 17.17.1). Relatively few young men have had multiple partners; of those who have, nearly all used condoms at last sex.

Table 17.18.1 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: women

Among young women age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, by background characteristics, Cambodia 2005

	Women 15-24 who had sexual intercourse in the past 12 months	
Background characteristic	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of women
Age		
15-19	1.2	376
15-17	0.9	93
18-19	1.3	283
20-24	0.4	1,672
20-22	0.4	810
23-24	0.3	861
Marital status		
Never married	*	3
Ever married	0.3	2,045
Knows condom source[2]		
Yes	0.5	1,204
No	0.5	844
Residence		
Urban	2.3	333
Rural	0.2	1,715
Province		
Banteay Mean Chey	0.0	83
Kampong Cham	0.0	275
Kampong Chhnang	0.0	60
Kampong Speu	1.2	125
Kampong Thom	0.0	91
Kandal	0.0	165
Kratie	0.0	39
Phnom Penh	2.4	213
Prey Veng	0.0	146
Pursat	0.0	64
Siem Reap	0.0	173
Svay Rieng	3.3	75
Takeo	0.0	101
Otdar Mean Chey	1.7	29
Battambang/Krong Pailin	0.0	154
Kampot/Krong Kep	0.0	113
Krong Preah Sihanouk/ Kaoh Kong	0.7	52
Preah Vihear/Steung Treng	1.2	50
Mondol Kiri/Rattanak Kiri	0.0	41
Education		
No schooling	0.6	400
Primary	0.5	1,185
Secondary and higher	0.4	464
Wealth quintile		
Lowest	0.0	409
Second	0.1	405
Middle	0.0	407
Fourth	0.1	387
Highest	2.2	440
Total 15-24	0.5	2,048

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent.
[2] For this table, the following responses are not considered a source for condoms: friends, family members and home.

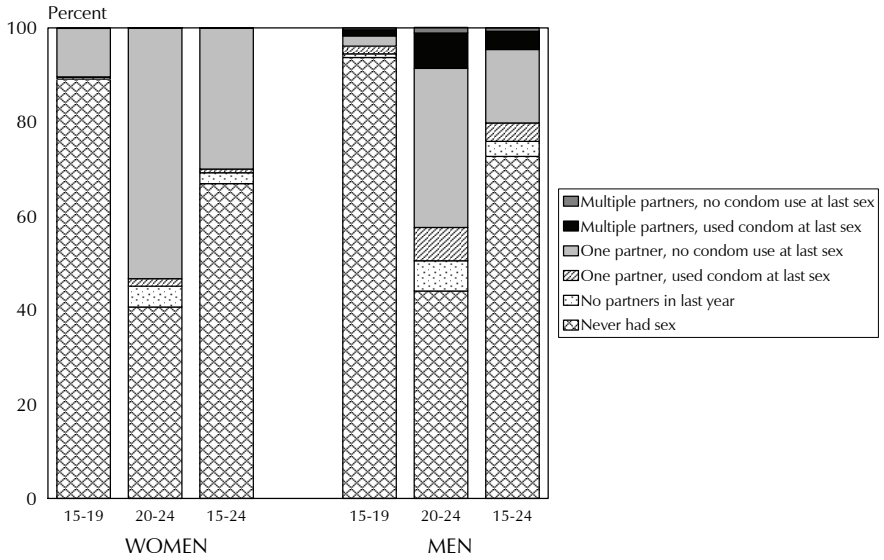
Table 17.18.2 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: men

Among young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, Cambodia 2005

	Men 15-24 who had sexual intercourse in the past 12 months		Men 15-24 who had higher risk intercourse in the past 12 months	
Background characteristic	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men
Age				
15-19	69.8	91	80.2	64
15-17	*	20	*	16
18-19	66.7	71	(82.1)	48
20-24	30.9	606	85.8	187
20-22	37.4	283	91.8	106
23-24	25.3	323	78.0	82
Marital status				
Never married	99.4	197	89.1	195
Ever married	11.1	500	67.7	56
Knows condom source[2]				
Yes	46.2	448	87.1	207
No	17.8	249	(71.6)	44
Residence				
Urban	64.1	152	89.3	98
Rural	28.2	545	81.3	154
Province				
Banteay Mean Chey	(27.2)	22	*	6
Kampong Cham	(19.8)	75	*	15
Kampong Chhnang	(6.7)	19	*	1
Kampong Speu	(38.8)	39	*	15
Kampong Thom	(41.9)	36	*	15
Kandal	(42.1)	82	*	34
Kratie	*	8	*	1
Phnom Penh	69.8	110	(93.3)	77
Prey Veng	*	34	*	10
Pursat	*	15	*	1
Siem Reap	(23.1)	56	*	13
Svay Rieng	(11.0)	23	*	3
Takeo	(30.8)	29	*	9
Otdar Mean Chey	(13.3)	6	*	1
Battambang/Krong Pailin	47.1	67	(83.7)	31
Kampot/Krong Kep	(20.8)	31	*	6
Krong Preah Sihanouk/ Kaoh Kong	(47.2)	20	*	10
Preah Vihear/Steung Treng	(5.7)	11	*	1
Mondol Kiri/Rattanak Kiri	16.4	14	*	2
Education				
No schooling	7.5	69	*	5
Primary	29.0	342	73.6	99
Secondary and higher	51.3	286	92.0	147
Wealth quintile				
Lowest	15.6	116	*	18
Second	21.7	124	(77.7)	27
Middle	17.0	122	*	21
Fourth	31.0	119	(81.4)	37
Highest	68.7	216	91.8	149
Total 15-24	36.0	697	84.4	251

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Sexual intercourse with a nonmarital, noncohabiting partner
[2] Friends, family members, and home are not considered sources for condoms.

Figure 17.5 **Abstinence, Being Faithful, and Condom Use (ABC) Among Young Women and Men**



Note: Number of partners refers to the 12 months preceding the survey. CDHS 2005

17.8.5 Drunkenness during Sexual Intercourse

Sexual intercourse when one or both partners are under the influence of alcohol is more likely to be unplanned than otherwise, and the partners are less likely to use condoms. Respondents who had had sex during the preceding 12 months were asked if they or their partner drank alcohol the last time they had sex, and if so, whether they or their partner were drunk. Table 17.19 shows the prevalence of sexual intercourse while drunk. The overall prevalence of sex when the respondent or partner is drunk is low, especially for young women (1 percent for women and 4 percent for men). Given the rarity of the phenomenon, differences across groups are minimal. Interestingly, most sex where alcohol is involved occurs among married respondents.

Table 17.19 Drunkenness during sexual intercourse among youth

Among all young women and young men age 15-24, the percentages who had sexual intercourse in the past 12 months while being drunk, by background characteristics, Cambodia 2005

Background characteristic	Women 15-24			Men 15-24		
	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of women	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of men
Age						
15-19	0.0	0.3	3,601	1.4	1.4	1,662
15-17	0.0	0.2	2,299	0.3	0.3	1,105
18-19	0.0	0.6	1,303	3.5	3.5	557
20-24	0.1	2.7	3,045	8.3	8.3	1,222
20-22	0.1	1.9	1,756	7.2	7.2	714
23-24	0.1	3.8	1,288	9.8	9.8	508
Marital status						
Never married	0.0	0.0	4,454	2.8	2.8	2,367
Ever married	0.1	4.3	2,192	10.9	10.9	517
Knows condom source[1]						
Yes	0.0	1.7	3,488	6.0	6.0	1,348
No	0.1	1.1	3,158	2.8	2.8	1,536
Residence						
Urban	0.1	1.2	1,318	7.2	7.2	509
Rural	0.0	1.5	5,328	3.7	3.7	2,375
Province						
Banteay Mean Chey	0.0	0.8	247	2.3	2.3	99
Kampong Cham	0.0	1.2	788	0.9	0.9	326
Kampong Chhnang	0.0	1.2	206	0.8	0.8	104
Kampong Speu	0.5	4.2	331	3.9	3.9	158
Kampong Thom	0.0	1.6	295	8.8	8.8	150
Kandal	0.0	0.5	635	9.8	9.8	308
Kratie	0.0	1.0	115	0.0	0.0	43
Phnom Penh	0.0	1.2	877	5.1	5.1	350
Prey Veng	0.0	2.7	475	3.5	3.5	192
Pursat	0.4	4.3	223	0.6	0.6	97
Siem Reap	0.0	0.7	512	3.7	3.7	204
Svay Rieng	0.0	0.7	231	0.0	0.0	126
Takeo	0.0	1.1	381	2.4	2.4	205
Otdar Mean Chey	0.0	1.9	73	0.0	0.0	27
Battambang/Krong Pailin	0.0	1.4	564	8.6	8.6	206
Kampot/Krong Kep	0.0	0.0	344	2.5	2.5	132
Krong Preah Sihanouk/ Kaoh Kong	0.0	0.5	148	5.2	5.2	66
Preah Vihear/Steung Treng	0.0	3.9	115	3.4	3.4	44
Mondol Kiri/Rattanak Kiri	0.0	2.8	85	10.8	10.8	44
Education						
No schooling	0.1	3.0	771	8.3	8.3	141
Primary	0.0	1.5	3,480	4.1	4.1	1,322
Secondary and higher	0.0	0.7	2,396	4.1	4.1	1,421
Wealth quintile						
Lowest	0.0	1.7	1,036	4.0	4.0	441
Second	0.1	1.7	1,143	4.4	4.4	489
Middle	0.0	2.0	1,261	1.5	1.5	590
Fourth	0.0	0.9	1,335	3.9	3.9	630
Highest	0.0	1.1	1,871	6.9	6.9	735
Total 15-24	0.0	1.4	6,646	4.3	4.3	2,884

[1] Friends, family members, and home are not considered sources for condoms

17.8.6 HIV Testing

Young people may believe there are barriers to accessing and using many health services and facilities, particularly for sensitive concerns relating to sexual health, such as sexually transmitted infections like HIV/AIDS. Table 17.20 presents data on the percentage of sexually active youth being tested and receiving the results within the past year. Young women and men who have had sexual intercourse in the past 12 months are similarly likely to have been tested for HIV (8 percent and 10 percent, respectively). There is a clear tendency for testing rates to be higher among urban youth, youth with a secondary or higher education, youth in the highest wealth quintile, and youth living in Phnom Penh or Kandal.

Table 17.20 Recent HIV tests among youth

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, Cambodia 2005

	Women 15-24 who have had sexual intercourse in the past 12 months		Men 15-24 who have had sexual intercourse in the past 12 months	
Background characteristic	Percentage who have been tested for HIV and received results in the past 12 months	Number of women	Percentage who have been tested for HIV and received results in the past 12 months	Number of men
Age				
15-19	11.6	376	5.2	91
15-17	12.0	93	*	20
18-19	11.4	283	3.9	71
20-24	7.6	1,672	10.7	606
20-22	7.4	810	10.4	283
23-24	7.8	861	11.0	323
Marital status				
Never married	*	3	12.7	197
Ever married	8.3	2,045	8.9	500
Knows condom source[1]				
Yes	10.1	1,204	10.4	448
No	5.8	844	9.3	249
Residence				
Urban	18.3	333	14.1	152
Rural	6.4	1,715	8.9	545
Province				
Banteay Mean Chey	6.3	83	(3.5)	22
Kampong Cham	1.5	275	(3.6)	75
Kampong Chhnang	6.7	60	(10.1)	19
Kampong Speu	7.0	125	(0.9)	39
Kampong Thom	3.9	91	(9.0)	36
Kandal	17.1	165	(23.5)	82
Kratie	1.9	39	*	8
Phnom Penh	19.7	213	15.0	110
Prey Veng	2.8	146	*	34
Pursat	1.9	64	*	15
Siem Reap	17.2	173	(8.2)	56
Svay Rieng	3.2	75	(3.4)	23
Takeo	5.7	101	(1.8)	29
Otdar Mean Chey	3.2	29	(1.8)	6
Battambang/Krong Pailin	12.6	154	15.2	67
Kampot/Krong Kep	2.7	113	(5.4)	31
Krong Preah Sihanouk/ Kaoh Kong	10.8	52	(9.0)	20
Preah Vihear/ Steung Treng	1.1	50	(3.6)	11
Mondol Kiri/ Rattanak Kiri	2.7	41	0.0	14
Education				
No schooling	3.3	400	8.3	69
Primary	5.7	1,185	7.8	342
Secondary and higher	19.3	464	13.1	286
Wealth quintile				
Lowest	1.5	409	4.4	116
Second	2.5	405	3.8	124
Middle	3.8	407	6.2	122
Fourth	13.2	387	16.3	119
Highest	20.0	440	15.2	216
Total 15-24	8.3	2,048	10.0	697

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Friends, family members, and home are not considered sources for condoms.

HIV PREVALENCE AND ASSOCIATED FACTORS 18

HIV testing was included in the 2005 CDHS to estimate HIV prevalence using a nationally representative sample of men and women age 15-49. The 2005 CDHS provides the first estimates of HIV prevalence among the male and female general population of reproductive age. Prior to the 2005 CDHS, HIV prevalence estimates have been derived primarily from sentinel surveillance of pregnant women obtaining antenatal care from public health facilities. Although the information from the ANC surveillance system has been very useful for assessing HIV levels, and especially for monitoring trends in HIV prevalence, the inclusion of HIV testing in the 2005 CDHS offers the first opportunity to obtain information on the magnitude and patterns of HIV infection in the general reproductive age population of Cambodia. Thus, the HIV prevalence data from the CDHS are expected to provide important information to plan the national response to the AIDS epidemic in Cambodia.

This chapter first presents the methodology used in conducting HIV testing as part of the CDHS survey and information on the coverage rates of HIV testing among eligible survey respondents. The chapter then discusses levels and differentials in HIV prevalence among those who were tested.

18.1 HIV TESTING PROTOCOL

The protocol for HIV testing was based on the anonymous-linked protocol developed by the Demographic and Health Surveys program. The protocol was approved by the Institutional Review Board at ORC Macro, the Atlanta office of the Centers for Disease Control National Center for HIV, STD, and TB Prevention (NCHSTP), and the National Ethics Committee for Health Research of Cambodia. Blood samples submitted for HIV testing were completely anonymous while the test result itself can be linked to the socio-demographic and behavioral data of respondents collected during the interview.

Since blood testing was performed on anonymous samples, it was not possible to inform respondents of their test results. However, a voucher listing fifty voluntary counseling and testing (VCT) facilities operating throughout the nation was distributed to all eligible respondents, whether or not they agreed to be tested for HIV. The Cambodia Office of the Centers for Disease Control and Prevention, Global AIDS Program (CDC/GAP) supplied rapid test kits that were distributed to the sixty VCT sites. The sites would offer free counseling and HIV testing to anyone presenting the voucher. Respondents were also reimbursed for transportation costs when they reached the site.

Data Collection

Blood used for laboratory testing of HIV was collected from the same finger stick performed to collect a capillary blood sample for field testing of anemia. The blood drops provided for HIV testing were collected by dripping four to five finger-prick blood drops onto a special filter paper card. A self-adhesive label printed with a randomly generated, unique, anonymous bar code number was attached to each filter paper card at the time of blood collection. No other identifier was attached to the blood sample. A second self-adhesive label printed with the same anonymous bar code number was affixed to the household questionnaire at the point where the interviewer had indicated the respondent gave voluntary consent for the laboratory testing. A third self-adhesive label printed with the same anonymous bar code number was affixed to a transmission sheet used to maintain a reliable inventory of blood samples throughout the transport procedures of samples from the field to the final destination of the laboratory.

Blood samples were dried overnight by placing the filter paper cards in a plastic box containing packets of desiccant to absorb humidity. Once blood samples were dry, each filter paper card was transferred to its own small plastic bag containing a desiccant to absorb humidity and a card to monitor humidity levels within the small plastic bag. If the humidity indicator card indicated high levels of humidity within the bag, the desiccant packet was replaced with a fresh packet to absorb the moisture. The plastic bags were specially manufactured to reduce exposure of their contents to air and moisture. Individual bags were then combined into one larger bag which also contained desiccants and a humidity indicator card; teams maintained one larger bag per each enumeration area (or cluster) interviewed. These bags, along with the questionnaires, were regularly collected by CDHS survey coordinators.

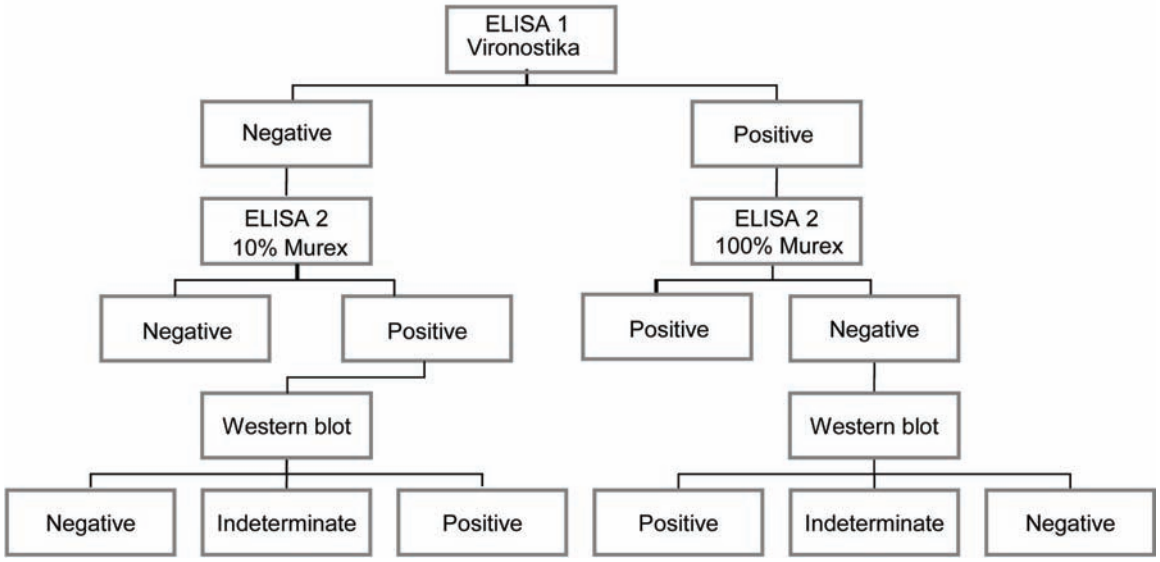
During the training session, dried blood spot (DBS) samples had been monitored over a three-week period with regard to CDHS storage practices to safeguard against humidity. Packaged according to CDHS standards, the humidity indicator cards indicated that filter paper cards could be shielded from humidity levels existent in Cambodia.

HIV Testing Procedure

Testing of DBS specimens for HIV antibodies was conducted by the National Institute of Public Health (NIPH). The Cambodia Office of the U.S. Centers for Disease Control and Prevention, Global AIDS Program (U.S. CDC/GAP) provided technical assistance and test kits to the laboratory.

The algorithm consisted of testing the specimens with ELISA 1 (Vironostika HIV Uniform II Plus 0 from Biomerieux). Vironostika was selected for the first round of testing because of the high sensitivity of its detection system. Specimens presenting an optic density less than the threshold value specified by the test kit were rendered negative; all above the threshold were rendered positive.

Figure 18.1 **HIV Testing Algorithm**
National Institute of Public Health, Phnom Penh
2005 CDHS



Specimens rendered positive using ELISA 1, as well as 10 percent of the samples rendered negative were subsequently analyzed with a second ELISA test: Murex 1.2.O. This second ELISA was chosen because of its high specificity.

All specimens rendered positive on ELISA 1 and ELISA 2 were rendered positive. All discordant samples were tested by Western Blot (New Lav Blot HIV 1) and rendered according to result of the Western Blot.

Data Processing

The NIPH was provided with the CSPro program developed by ORC Macro and designed especially for the HIV-testing algorithm: CSPro HIV Test Tracking System (CHTTS). As data were entered, the program automatically calculated all entries (number of blood tests, number of positives, number of negatives). Each specimen received by the laboratory had only the randomly generated, unique, anonymous bar code number that was placed on the filter paper card by the interviewer in the field. Only this code number was entered into the CSPro program with the blood test result. This confidential file was maintained by NIPH until the end of the survey. Only after data entry for the entire survey was complete, and the data files at NIS had been cleaned and the data had been weighted, was a data file prepared at NIPH containing only weighting factors of respondents and a few demographic characteristics (age, sex, residence, province, education). This file was used to verify cohesion of the two data banks (the data file of questionnaires at NIS and the data file of blood samples at NIPH). To guarantee anonymity, information allowing identification of respondents by household, cluster, village, or district number were removed from the survey data files before merging the two files. The two files were merged to calculate the socio-demographic and behavioral indicators of HIV prevalence.

Quality Control

The NIPH laboratory applied its standards of internal quality control throughout the process of HIV testing for the CDHS. The U.S. CDC/GAP provides technical support to the laboratory. All samples rendered positive and 10 percent of the samples rendered negative were sent to the Atlanta laboratory of the CDC for external quality control.

18.2 Coverage of HIV Testing in the CDHS

Half of the entire sample of households selected for the 2005 CDHS were eligible for HIV testing. All women and men age 15-49 living in the 50 percent subsample of households were eligible for the HIV testing component of the CDHS. Table 18.1.1 shows the coverage rates for HIV testing among all eligible women and men by reason for not being tested, according to residence. Table 18.1.2 shows the same information separately for women and men. Response rates for providing blood samples for HIV testing were very high. In total, HIV tests were conducted for 93 percent of the 15,867 eligible respondents. The response rate is higher among women (95 percent) than among men (90 percent). Overall, 2.5 percent of men and 2.2 percent of women refused to provide blood after being interviewed for the survey.

Rural residents were somewhat more likely to be tested than their urban counterparts (94 percent and 90 percent, respectively). There are few significant differences in HIV testing coverage rates by province; response rates are lowest in Krong Preah Sihanouk/Kaoh Kong, particularly among men. Refusal rates were highest in Phnom Penh (6 percent) and Pursat (5 percent).

Table 18.1.1 Coverage of HIV testing by residence and region: all respondents

Percent distribution of de facto women and men age 15-49 eligible for HIV testing by testing status, according to residence and region (unweighted), Cambodia 2005

Background characteristic	Interviewed: DBS tested[1]	Interviewed: Refused to provide blood	Interviewed: Absent/ other[2]	Not interviewed	Total	Number of respondents
Residence						
Urban	89.8	3.9	0.8	5.5	100.0	3,886
Rural	93.6	1.8	0.2	4.4	100.0	11,981
Province						
Banteay Mean Chey	89.6	2.7	0.7	7.1	100.0	749
Kampong Cham	92.4	1.2	0.4	6.0	100.0	779
Kampong Chhnang	97.1	0.7	0.1	2.1	100.0	768
Kampong Speu	95.2	1.4	0.1	3.3	100.0	855
Kampong Thom	91.1	2.5	0.6	5.9	100.0	885
Kandal	93.3	1.7	0.4	4.6	100.0	839
Kratie	95.1	0.4	0.1	4.4	100.0	789
Phnom Penh	88.5	5.8	0.4	5.3	100.0	1,017
Prey Veng	94.4	2.2	0.6	2.8	100.0	789
Pursat	91.6	5.0	0.3	3.2	100.0	760
Siem Reap	93.4	2.6	0.2	3.8	100.0	878
Svay Rieng	95.3	2.3	0.1	2.2	100.0	809
Takeo	96.7	1.0	0.0	2.2	100.0	860
Otdar Mean Chey	90.9	0.1	0.1	8.9	100.0	853
Battambang/Krong Pailin	94.4	1.1	0.0	4.6	100.0	945
Kampot/Krong Kep	91.8	3.7	0.0	4.6	100.0	790
Krong Preah Sihanouk/ Kaoh Kong	86.4	3.5	2.6	7.5	100.0	804
Preah Vihear/Steung Treng	93.7	3.3	0.1	2.8	100.0	778
Mondol Kiri/Rattanak Kiri	90.4	2.6	0.3	6.6	100.0	920
Total	92.7	2.3	0.4	4.7	100.0	15,867

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there was a result (i.e., positive, negative, or indeterminate). Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table 18.1.2 Coverage of HIV testing by residence and region: women and men

Percent distribution of de facto women and men age 15-49 eligible for HIV testing by testing status, according to residence and region (unweighted), Cambodia 2005

Background characteristic	Interviewed: DBS tested[1]	Interviewed: Refused to provide blood	Interviewed: Absent/ other[2]	Not interviewed	Total	Number of respondents
			WOMEN			
Residence						
Urban	92.7	3.4	0.5	3.3	100.0	2,158
Rural	95.5	1.7	0.2	2.6	100.0	6,480
Province						
Banteay Mean Chey	92.9	1.7	1.0	4.5	100.0	421
Kampong Cham	92.5	0.9	0.5	6.1	100.0	428
Kampong Chhnang	98.5	0.7	0.0	0.7	100.0	410
Kampong Speu	97.0	1.3	0.2	1.5	100.0	468
Kampong Thom	95.0	1.9	0.4	2.7	100.0	484
Kandal	94.1	1.8	0.0	4.1	100.0	442
Kratie	98.4	0.5	0.0	1.1	100.0	442
Phnom Penh	91.4	4.8	0.2	3.6	100.0	560
Prey Veng	93.4	3.2	1.1	2.3	100.0	469
Pursat	93.6	3.7	0.2	2.5	100.0	405
Siem Reap	94.8	2.9	0.0	2.3	100.0	483
Svay Rieng	95.6	2.3	0.2	1.8	100.0	436
Takeo	96.4	1.1	0.0	2.5	100.0	446
Otdar Mean Chey	96.3	0.2	0.0	3.5	100.0	462
Battambang/Krong Pailin	96.2	0.7	0.0	3.1	100.0	546
Kampot/Krong Kep	92.6	3.7	0.0	3.7	100.0	434
Krong Preah Sihanouk/ Kaoh Kong	92.3	4.0	1.2	2.6	100.0	427
Preah Vihear/Steung Treng	95.7	2.9	0.2	1.2	100.0	414
Mondol Kiri/Rattanak Kiri	94.6	2.4	0.2	2.8	100.0	461
Total	94.8	2.2	0.3	2.8	100.0	8,638
			MEN			
Residence						
Urban	86.1	4.6	1.2	8.2	100.0	1,728
Rural	91.4	1.9	0.3	6.5	100.0	5,501
Province						
Banteay Mean Chey	85.4	4.0	0.3	10.4	100.0	328
Kampong Cham	92.3	1.4	0.3	6.0	100.0	351
Kampong Chhnang	95.5	0.6	0.3	3.6	100.0	358
Kampong Speu	93.0	1.6	0.0	5.4	100.0	387
Kampong Thom	86.3	3.2	0.7	9.7	100.0	401
Kandal	92.4	1.5	0.8	5.3	100.0	397
Kratie	90.8	0.3	0.3	8.6	100.0	347
Phnom Penh	84.9	7.0	0.7	7.4	100.0	457
Prey Veng	95.9	0.6	0.0	3.4	100.0	320
Pursat	89.3	6.5	0.3	3.9	100.0	355
Siem Reap	91.6	2.3	0.5	5.6	100.0	395
Svay Rieng	94.9	2.4	0.0	2.7	100.0	373
Takeo	97.1	1.0	0.0	1.9	100.0	414
Otdar Mean Chey	84.4	0.0	0.3	15.3	100.0	391
Battambang/Krong Pailin	92.0	1.5	0.0	6.5	100.0	399
Kampot/Krong Kep	90.7	3.7	0.0	5.6	100.0	356
Krong Preah Sihanouk/ Kaoh Kong	79.8	2.9	4.2	13.0	100.0	377
Preah Vihear/Steung Treng	91.5	3.8	0.0	4.7	100.0	364
Mondol Kiri/Rattanak Kiri	86.3	2.8	0.4	10.5	100.0	459
Total	90.1	2.5	0.5	6.9	100.0	7,229

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there was a result (i.e., positive, negative, or indeterminate). Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table 18.2 shows coverage rates for HIV testing by age group, education, and household wealth. If HIV status influenced participation in the testing, coverage would be expected to change with either age, education, wealth, or any other characteristics known to be associated with HIV status. In fact, coverage rates for testing in the CDHS are relatively consistent across age, among both women and men. Response rates were also fairly consistent across education levels. Men and women in the highest of the five wealth quintiles were somewhat less likely to be tested than those in other quintiles.

Table 18.2 Coverage of HIV testing by selected background characteristics

Percent distribution of de facto women and men age 15-49 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), Cambodia 2005

Background characteristic	Interviewed: DBS tested[1]	Interviewed: Refused to provide blood	Interviewed: Absent/ other[2]	Not interviewed	Total	Number of respondents
WOMEN						
Age						
15-19	92.9	2.5	0.3	4.3	100.0	1,855
20-24	95.3	1.7	0.1	2.9	100.0	1,559
25-29	95.2	1.4	0.3	3.1	100.0	1,059
30-34	95.5	2.4	0.3	1.8	100.0	1,044
25-39	95.7	2.4	0.1	1.7	100.0	1,146
40-44	95.6	1.8	0.4	2.3	100.0	1,066
45-49	94.4	2.9	0.6	2.2	100.0	909
Education						
No schooling	93.9	2.2	0.1	3.8	100.0	1,991
Primary	95.7	1.7	0.4	2.2	100.0	4,684
Secondary and higher	93.5	3.3	0.2	3.0	100.0	1,962
Wealth quintile						
Lowest	96.1	1.2	0.2	2.6	100.0	1,646
Second	96.4	1.3	0.1	2.2	100.0	1,656
Middle	95.5	1.6	0.4	2.5	100.0	1,702
Fourth	95.0	2.3	0.3	2.4	100.0	1,612
Highest	91.7	4.0	0.3	4.0	100.0	2,022
Total	94.8	2.2	0.3	2.8	100.0	8,638
MEN						
Age						
15-19	89.9	2.4	0.5	7.3	100.0	1,844
20-24	89.7	2.1	0.5	7.7	100.0	1,280
25-29	90.0	2.8	0.7	6.6	100.0	908
30-34	89.7	2.5	0.6	7.3	100.0	813
25-39	89.6	2.5	0.3	7.6	100.0	933
40-44	90.0	3.7	0.2	6.1	100.0	837
45-49	93.5	2.0	0.5	4.1	100.0	614
Education						
No schooling	86.2	1.9	0.6	11.3	100.0	803
Primary	90.9	2.0	0.4	6.7	100.0	3,588
Secondary and higher	90.6	3.4	0.6	5.4	100.0	2,826
Wealth quintile						
Lowest	90.8	1.4	0.2	7.5	100.0	1,311
Second	92.0	1.4	0.4	6.2	100.0	1,391
Middle	92.0	1.9	0.4	5.6	100.0	1,456
Fourth	90.1	2.5	0.6	6.9	100.0	1,438
Highest	86.2	4.9	0.7	8.1	100.0	1,633
Total	90.1	2.5	0.5	6.9	100.0	7,229

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there was a result (i.e., positive, negative, or indeterminate). Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

In order to further explore whether non-response might have an impact on the HIV seroprevalence results, tables describing the relationship between participation in the HIV testing and a number of other characteristics related to HIV risk were also examined (see Tables A.8-A.11 in Appendix A). Overall, analysis of these rates show no systematic relation between participation in the test and variables associated with higher-risk of HIV infection. These results indicate that the estimated prevalence rates from the CDHS provide an unbiased measure of HIV prevalence in the general population.

18.3 HIV PREVALENCE

Results from the 2005 CDHS indicate that 0.6 percent of Cambodian adults age 15-49 are infected with HIV (Table 18.3). HIV prevalence shows no difference according to sex; both women and men have a seroprevalence of 0.6 percent. It should be borne in mind that zero prevalence estimated by the survey does not mean there are zero cases in the population. It just happened that no infected people were selected in the sample. For some background and sexual behavioral characteristics and some provinces, due to the low HIV prevalence in the population in those categories, and the relatively small sample size, it is difficult to estimate precisely the prevalence.

Table 18.3 also shows that HIV prevalence levels rise with age, peaking among women in their late 20s and among men in their 30s. Young men and women age 15-24 have a lower seroprevalence rate (0.0 percent among those age 15-19 and 0.4 percent among those age 20-24) than older men and women. Prevalence rates then remain constant beginning with the 25-29 year age group.

Table 18.3.1 HIV prevalence by age: women

Among the de facto women age 15-49 who were interviewed and tested, the percentage HIV positive, by age, Cambodia 2005

Age	Percentage HIV positive	R-2SE	R+2SE	Weighted number of women	Unweighted number of women
15-19	0.0	0.0	0.1	1,657	1,723
20-24	0.6	0.2	1.0	1,483	1,486
25-29	1.3	0.3	2.3	949	1,008
30-34	0.8	0.1	1.4	1,016	997
35-39	0.7	0.2	1.3	1,074	1,097
40-44	0.3	0.0	0.7	1,025	1,019
45-49	1.0	0.2	1.9	843	858
Total age 15-49	0.6	0.4	0.8	8,047	8,188

Table 18.3.2 HIV prevalence by age: men

Among the de facto men age 15-49 who were interviewed and tested, the percentage HIV positive, by age, Cambodia 2005

Age	Percentage HIV positive	R-2SE	R+2SE	Weighted number of men	Unweighted number of men
15-19	0.1	0.0	0.2	1,641	1,657
20-24	0.2	0.0	0.5	1,216	1,148
25-29	0.6	0.0	1.3	814	817
30-34	1.2	0.1	2.4	805	729
35-39	1.3	0.3	2.3	850	836
40-44	0.7	0.1	1.3	778	753
45-49	1.3	0.1	2.5	552	574
Total age 15-49	0.6	0.3	0.9	6,656	6,514

Table 18.3.3 HIV prevalence by age: total women and men

Among the de facto women and men age 15-49 who were interviewed and tested, the percentage HIV positive, by age, Cambodia 2005

Age	Percentage HIV positive	R-2SE	R+2SE	Weighted number of women and men	Unweighted number of women and men
15-19	0.0	0.0	0.1	3,298	3,380
20-24	0.4	0.2	0.7	2,699	2,634
25-29	1.0	0.4	1.6	1,763	1,825
30-34	1.0	0.3	1.6	1,821	1,726
35-39	1.0	0.5	1.5	1,924	1,933
40-44	0.5	0.1	0.8	1,804	1,772
45-49	1.1	0.4	1.9	1,395	1,432
Total age 15-49	0.6	0.4	0.8	14,703	14,702

HIV Prevalence by Socioeconomic Characteristics

As Table 18.4 shows, marital status is closely related to HIV prevalence. Women and men who are widowed and those who are divorced or separated have significantly higher rates than those who are married or living together. HIV rates are lowest for respondents who have never been in union. Urban residents have a higher risk of HIV infection (1.4 percent) than rural residents (0.4 percent). Prevalence levels are highest in Phnom Penh (1.7 percent) and Krong Preah Sihanouk/Kaoh Kong (1.3 percent). The lowest overall prevalence is found in Mondol Kiri/Rattanak Kiri and Svay Rieng (0.0 percent).

HIV infection levels show no clear pattern according to education levels. Women with no schooling have slightly higher prevalence rates than those with higher education. On the other hand, men with secondary or higher education have higher prevalence rates than those with less education. Employment in the past 12 months is also related to HIV levels among men but not women; those who are employed being more likely than the unemployed to be infected. Particularly among men, those who were unemployed during the 12-month period prior to the survey are heavily concentrated in the younger age groups where HIV levels are quite low. This helps to explain why none of the men in this category were HIV positive.

Both women and men in the highest wealth quintile have higher rates of HIV infection than those in other wealth quintiles.

Table 18.4.1 HIV prevalence by socioeconomic characteristics: women

Percentage HIV positive among women age 15-49 who were tested, by socioeconomic characteristics, Cambodia 2005

Socioeconomic characteristic	Percentage HIV positive	R-2SE	R+2SE	Weighted number of women	Unweighted number of women
Marital status					
Never married	0.1	0.0	0.2	2,502	2,459
Ever had sexual intercourse	*	0.0	0.0	4	7
Never had sexual intercourse	0.1	0.0	0.2	2,498	2,452
Married/living together	0.7	0.4	0.9	4,835	5,033
Divorced or separated	1.1	0.0	2.5	377	370
Widowed	2.9	0.9	5.0	333	326
Employment (past 12 months)					
Not employed	0.7	0.3	1.2	1,665	1,711
Employed	0.6	0.3	0.8	6,358	6,446
Residence					
Urban	1.3	0.7	2.0	1,426	2,001
Rural	0.5	0.3	0.6	6,622	6,187
Province					
Banteay Mean Chey	0.7	0.0	1.4	319	391
Kampong Cham	0.5	0.0	1.2	1,051	396
Kampong Chhnang	1.2	0.0	2.5	264	404
Kampong Speu	0.2	0.0	0.7	415	454
Kampong Thom	0.5	0.0	1.1	398	460
Kandal	0.0	0.0	0.0	746	416
Kratie	0.2	0.0	0.7	160	435
Phnom Penh	1.5	0.5	2.5	899	512
Prey Veng	0.7	0.0	1.5	694	438
Pursat	0.7	0.0	1.5	222	379
Siem Reap	0.3	0.0	0.8	552	458
Svay Rieng	0.0	0.0	0.0	325	417
Takeo	0.4	0.0	0.9	507	430
Otdar Mean Chey	0.1	0.0	0.2	81	445
Battambang/Krong Pailin	0.8	0.1	1.5	612	525
Kampot/Krong Kep	0.8	0.0	1.6	379	402
Krong Preah Sihanouk/ Kaoh Kong	1.7	0.5	3.0	185	394
Preah Vihear/Steung Treng	0.2	0.0	0.7	131	396
Mondol Kiri/Rattanak Kiri	0.0	0.0	0.0	107	436
Education					
No schooling	0.8	0.3	1.3	1,600	1,870
Primary	0.6	0.3	0.9	4,522	4,483
Secondary and higher	0.5	0.1	0.8	1,925	1,835
Wealth quintile					
Lowest	0.5	0.1	0.8	1,411	1,581
Second	0.4	0.0	0.8	1,498	1,596
Middle	0.4	0.0	0.7	1,593	1,625
Fourth	0.8	0.3	1.2	1,557	1,531
Highest	0.9	0.4	1.4	1,988	1,855
Total	0.6	0.4	0.8	8,047	8,188

Note: Total includes 24 individuals for whom employment status is unknown. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 18.4.2 HIV prevalence by socioeconomic characteristics: men

Percentage HIV positive among men age 15-49 who were tested, by socioeconomic characteristics, Cambodia 2005

Socioeconomic characteristic	Percentage HIV positive	R-2SE	R+2SE	Weighted number of men	Unweighted number of men
Marital status					
Never married	0.1	0.0	0.2	2,568	2,485
Ever had sexual intercourse	0.3	0.0	0.9	372	332
Never had sexual intercourse	0.0	0.0	0.1	2,196	2,153
Married/living together	0.9	0.5	1.4	3,934	3,880
Divorced or separated	2.0	0.0	5.9	117	114
Widowed	4.1	0.0	9.7	37	35
Employment (past 12 months)					
Not employed	0.0	0.0	0.0	1,070	1,050
Employed	0.7	0.4	1.1	5,586	5,464
Residence					
Urban	1.6	0.3	2.8	1,124	1,487
Rural	0.4	0.2	0.7	5,532	5,027
Province					
Banteay Mean Chey	0.7	0.0	1.6	252	280
Kampong Cham	0.6	0.0	1.4	862	324
Kampong Chhnang	0.4	0.0	1.2	231	342
Kampong Speu	0.2	0.0	0.5	342	360
Kampong Thom	0.9	0.0	2.0	327	346
Kandal	0.6	0.0	1.4	675	367
Kratie	0.6	0.0	1.4	126	315
Phnom Penh	2.0	0.1	4.0	734	388
Prey Veng	0.0	0.0	0.0	477	307
Pursat	0.3	0.0	1.0	199	317
Siem Reap	0.4	0.0	1.0	455	362
Svay Rieng	0.0	0.0	0.0	279	354
Takeo	0.3	0.0	0.8	484	402
Otdar Mean Chey	0.2	0.0	0.6	68	330
Battambang/Krong Pailin	0.7	0.0	1.5	446	367
Kampot/Krong Kep	0.8	0.0	1.7	317	323
Krong Preah Sihanouk/ Kaoh Kong	0.7	0.0	1.5	157	301
Preah Vihear/Steung Treng	0.3	0.0	0.8	115	333
Mondol Kiri/Rattanak Kiri	0.0	0.0	0.0	109	396
Education					
No schooling	0.3	0.0	0.8	604	692
Primary	0.5	0.2	0.8	3,229	3,261
Secondary and higher	0.8	0.3	1.4	2,824	2,561
Wealth quintile					
Lowest	0.3	0.0	0.6	1,071	1,191
Second	0.1	0.0	0.4	1,216	1,280
Middle	0.2	0.0	0.4	1,333	1,340
Fourth	0.7	0.2	1.3	1,447	1,295
Highest	1.5	0.5	2.5	1,588	1,408
Total	0.6	0.3	0.9	6,656	6,514

Note: Total includes 24 individuals for whom employment status is unknown.

Table 18.4.3 HIV prevalence by socioeconomic characteristics: women and men

Percentage HIV positive among women and men age 15-49 who were tested, by socioeconomic characteristics, Cambodia 2005

Socioeconomic characteristic	Percentage HIV positive	R-2SE	R+2SE	Weighted number of women and men	Unweighted number of women and men
Marital status					
Never married	0.1	0.0	0.2	5,070	4,944
Ever had sexual intercourse	0.3	0.0	0.9	376	339
Never had sexual intercourse	0.1	0.0	0.2	4,694	4,605
Married/living together	0.8	0.5	1.1	8,769	8,913
Divorced or separated	1.3	0.0	2.7	494	484
Widowed	3.1	1.1	5.0	370	361
Employment (past 12 months)					
Not employed	0.4	0.2	0.7	2,736	2,761
Employed	0.6	0.4	0.9	11,943	11,910
Residence					
Urban	1.4	0.6	2.3	2,550	3,488
Rural	0.4	0.3	0.6	12,153	11,214
Province					
Banteay Mean Chey	0.7	0.0	1.4	571	671
Kampong Cham	0.6	0.0	1.2	1,914	720
Kampong Chhnang	0.8	0.0	1.6	495	746
Kampong Speu	0.2	0.0	0.5	757	814
Kampong Thom	0.7	0.0	1.4	725	806
Kandal	0.3	0.0	0.7	1,421	783
Kratie	0.4	0.0	0.8	285	750
Phnom Penh	1.7	0.4	3.1	1,633	900
Prey Veng	0.4	0.0	0.9	1,172	745
Pursat	0.5	0.0	1.0	420	696
Siem Reap	0.3	0.0	0.9	1,006	820
Svay Rieng	0.0	0.0	0.0	604	771
Takeo	0.3	0.0	0.7	991	832
Otdar Mean Chey	0.1	0.0	0.3	149	775
Battambang/Krong Pailin	0.7	0.1	1.4	1,058	892
Kampot/Krong Kep	0.8	0.0	1.5	696	725
Krong Preah Sihanouk/ Kaoh Kong	1.3	0.4	2.1	342	695
Preah Vihear/Steung Treng	0.2	0.0	0.7	246	729
Mondol Kiri/Rattanak Kiri	0.0	0.0	0.0	217	832
Education					
No schooling	0.7	0.3	1.1	2,204	2,562
Primary	0.6	0.3	0.8	7,751	7,744
Secondary and higher	0.7	0.3	1.1	4,749	4,396
Wealth quintile					
Lowest	0.4	0.1	0.7	2,482	2,772
Second	0.3	0.0	0.6	2,713	2,876
Middle	0.3	0.0	0.5	2,927	2,965
Fourth	0.7	0.3	1.2	3,005	2,826
Highest	1.2	0.5	1.9	3,576	3,263
Total	0.6	0.4	0.8	14,703	14,702

Note: Total includes 24 individuals for whom employment status is unknown.

HIV Prevalence by Other Demographic Characteristics

Table 18.5 looks at how HIV rates relate to two measures of mobility. The results indicate that women who have slept away from their homes at least five times in the past year have a seroprevalence rate more than three times the national figure (2.0 percent). Similarly, women who were away from their homes for more than a month at a time also had an elevated HIV prevalence (1.5 percent). The pattern of mobility and HIV prevalence among men is not as clear.

Notably, HIV rates are somewhat higher among women who received antenatal care at a public health facility in the three-year period prior to the survey (0.8 percent). HIV prevalence among women who are currently pregnant is 0.3 percent, roughly half the level found among nonpregnant women.

Table 18.5 HIV prevalence by demographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by demographic characteristics, Cambodia 2005

	Women		Men		Total	
Demographic characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Times slept away from home in past 12 months						
None	0.4	5,156	0.7	3,319	0.6	8,475
1-2	0.8	1,850	0.5	1,670	0.7	3,520
3-4	0.2	621	0.3	758	0.3	1,379
5+	2.0	403	0.8	901	1.2	1,304
Time away in past 12 months						
Away for more than one month	1.5	557	0.3	844	0.8	1,401
Away only for less than one month	0.7	2,318	0.6	2,487	0.6	4,806
Not away	0.4	5,164	0.7	3,325	0.6	8,488
Currently pregnant						
Pregnant	0.3	475	na	na	na	na
Not pregnant or not sure	0.6	7,572	na	na	na	na
ANC for last birth in the past 3 years						
ANC in a public health facility	0.8	1,144	na	na	na	na
ANC, not in a public health facility	1.3	321	na	na	na	na
No ANC/no birth in past 3 years	0.5	6,583	na	na	na	na
Total	0.6	8,047	0.6	6,656	0.6	14,703

Note: Total includes 24 individuals for whom the number of times slept away from home in past 12 months is unknown and 8 individuals for whom time spent away in past 12 months is unknown.
na = Not applicable

HIV Prevalence by Sexual Risk Behavior

Table 18.6 presents HIV prevalence rates by sexual behavior indicators among respondents who have ever had sexual intercourse. In reviewing these results, it is important to remember that responses about sexual risk behaviors may be subject to reporting bias. Also, sexual behavior in the 12 months preceding the survey may not adequately reflect lifetime sexual risk.

Table 18.6 HIV prevalence by sexual behavior

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behavior characteristic, Cambodia 2005

Sexual behavior characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	1.0	395	0.0	90	0.8	485
16-17	1.2	1,100	0.7	405	1.1	1,505
18-19	0.5	1,499	1.1	1,156	0.8	2,655
20+	0.9	2,391	0.9	2,800	0.9	5,191
Higher-risk intercourse in past 12 months[1]						
Had higher-risk intercourse	*	10	1.5	573	1.4	582
Had sexual intercourse, not higher risk	0.6	4,776	0.7	3,654	0.7	8,430
No sexual intercourse in past 12 months	2.1	762	3.0	226	2.3	988
Number of sexual partners in past 12 months						
0	2.1	762	3.1	221	2.3	982
1	0.6	4,770	0.7	3,828	0.7	8,598
2	*	14	2.9	210	2.7	225
3+	*	1	1.1	188	1.1	189
Number of higher-risk partners in past 12 months[2]						
0	0.8	5,538	0.8	3,880	0.8	9,418
1	*	8	1.2	322	1.2	330
2	*	1	2.1	164	2.0	166
3+	*	1	1.2	86	1.2	86
Condom use						
Ever used a condom	2.2	388	na	na	na	na
Never used a condom	0.7	5,149	na	na	na	na
Condom use at last sexual intercourse in past 12 months						
Used condom	1.5	136	1.6	473	1.6	609
Did not use condom	0.6	4,646	0.7	3,751	0.7	8,397
No sexual intercourse in past 12 months	2.1	762	3.0	226	2.3	988
Condom use at last higher-risk intercourse in past 12 months[1]						
Used condom	*	4	1.6	469	1.6	473
Did not use condom	*	6	1.0	103	0.9	109
No higher-risk intercourse/no sexual intercourse in past 12 months	0.8	5,538	0.8	3,880	0.8	9,418
Number of lifetime partners						
1	0.6	5,010	0.3	2,482	0.5	7,492
2	2.6	496	0.7	566	1.6	1,062
3-4	(6.4)	22	1.8	526	1.9	549
5-9	*	0	1.6	439	1.6	439
10+	*	4	2.8	396	3.0	400
Paid for sexual intercourse in past 12 months[3]						
Yes	na	na	1.6	383	na	na
Used condom	na	na	1.7	366	na	na
Did not use condom	na	na	*	17	na	na
No/no sexual intercourse in past 12 months	na	na	0.9	4,070	na	na
Total	0.8	5,548	0.9	4,453	0.9	10,000

Note: Condom refers to male condom. Total includes 164 individuals for whom age at first sex in unknown, 11 individuals for whom condom use is unknown, 6 individuals for whom condom use at last sexual intercourse is unknown, 6 individuals for whom number of sexual partners in past 12 months is unknown, and 58 individuals for whom number of lifetime partners is unknown. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

na = Not applicable

[1] Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

[2] A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the past 12 months

[3] Includes men who report having a prostitute for at least one of their last three sexual partners in the past 12 months

For women, there appears to be a pattern of higher HIV prevalence with sexual debut at earlier ages while the age at which men initiated sex appears to be unrelated to their HIV status. Respondents are considered to have had a higher-risk sexual encounter if they had intercourse with a nonmarital, noncohabiting partner. Table 18.6 shows that both women and men who had ever had sex but reported not having had sexual intercourse in the past 12 months are more likely to be HIV-infected than those who were sexually active during that time period. The prevalence among women who reported not having had sexual intercourse in the past 12 months is 2.1 percent and among men it is 3.0 percent, compared with 0.8 and 0.9 percent respectively among women and men who have ever had sex. This is a surprising finding that warrants further attention.

The results in Table 18.6 suggest that HIV risk rises directly with the number of lifetime sexual partners that an individual has. Individuals with 10 or more lifetime partners have a seroprevalence rate five times the national figure (3.0 percent).

Finally, among men, those who said that they paid for sex in the 12 months preceding the survey have an HIV prevalence twice that of those who reported not paying for sex.

18.4 HIV Prevalence Among Youth

Tables 18.7 and 18.8 present HIV prevalence by background characteristics and by sexual behavior characteristics related to HIV risk among young women and men age 15-24. Table 18.7 shows that young women and men have low HIV prevalence rates. Women age 15-24 are estimated to have HIV rates of 0.3 percent and men age 15-24 are estimated to have HIV rates of 0.1 percent. There is little meaningful difference in these figures by background characteristics.

Table 18.8 presents HIV prevalence among young men and women age 15-24 who have ever had sex. This table shows that HIV rates are slightly higher among young men and women who have ever had sex, compared with all young men and women. Women age 15-24 who have ever had sex are estimated to have HIV rates of 0.6 percent and men age 15-24 who have ever had sex are estimated to have HIV rates of 0.3 percent.

Table 18.7 HIV prevalence among young people by background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by background characteristics, Cambodia 2005

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	0.0	1,657	0.1	1,641	0.0	3,298
15-17	0.0	1,080	0.1	1,080	0.0	2,160
18-19	0.0	577	0.0	561	0.0	1,137
20-24	0.6	1,483	0.2	1,216	0.4	2,699
20-22	0.4	848	0.1	708	0.3	1,556
23-24	0.9	636	0.3	507	0.6	1,143
Marital status						
Never married	0.1	2,077	0.1	2,341	0.1	4,418
Ever had sex	*	3	0.3	270	0.3	273
Never had sex	0.1	2,074	0.0	2,071	0.1	4,145
Married/living together	0.7	980	0.3	473	0.6	1,453
Divorced/separated/widowed	0.0	83	(0.0)	43	0.0	126
Currently pregnant						
Pregnant	0.3	227	na	na	na	na
Not pregnant or not sure	0.3	2,913	na	na	na	na
Residence						
Urban	0.4	638	0.0	511	0.2	1,149
Rural	0.3	2,503	0.1	2,345	0.2	4,848
Province						
Banteay Mean Chey	0.0	123	0.9	100	0.4	224
Kampong Cham	0.0	379	0.0	325	0.0	704
Kampong Chhnang	0.8	103	0.9	103	0.8	206
Kampong Speu	0.7	145	0.0	155	0.3	301
Kampong Thom	0.4	144	0.6	151	0.5	295
Kandal	0.0	276	0.0	303	0.0	579
Kratie	0.0	53	0.0	42	0.0	95
Phnom Penh	0.0	415	0.0	351	0.0	766
Prey Veng	0.7	251	0.0	191	0.4	442
Pursat	0.0	103	0.7	98	0.3	201
Siem Reap	0.7	223	0.0	200	0.4	423
Svay Rieng	0.0	122	0.0	124	0.0	246
Takeo	0.0	178	0.0	202	0.0	380
Otdar Mean Chey	0.0	30	0.0	27	0.0	57
Battambang/Krong Pailin	0.4	270	0.0	201	0.2	471
Kampot/Krong Kep	0.7	153	0.0	130	0.4	283
Krong Preah Sihanouk/ Kaoh Kong	1.6	76	0.0	65	0.9	141
Preah Vihear/Steung Treng	0.0	51	0.0	45	0.0	96
Mondol Kiri/Rattanak Kiri	0.0	43	0.0	44	0.0	86
Total	0.3	3,140	0.1	2,856	0.2	5,997

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 18.8 HIV prevalence among young people by sexual behavior

Percentage HIV positive among women and men age 15-24 who ever had sex and were tested for HIV, by sexual behavior, Cambodia 2005

Sexual behavior characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Relative age of first sexual partner						
10+ years older	2.0	64	na	na	2.0	64
<10 years older, same age, younger/ don't know	0.6	984	na	na	0.6	984
Higher-risk intercourse in past 12 months[1]						
Had higher-risk intercourse	*	9	0.0	248	0.0	257
Had sexual intercourse, not higher risk	0.7	979	0.4	447	0.6	1,426
No sexual intercourse in past 12 months	0.0	78	1.0	91	0.6	169
Number of sexual partners in past 12 months						
0	0.0	78	1.1	90	0.6	168
1	0.7	986	0.3	560	0.5	1,545
2+	*	2	0.0	135	0.0	137
Number of higher-risk partners in past 12 months[2]						
0	0.6	1,057	0.5	537	0.6	1,594
1	*	7	0.0	129	0.0	136
2+	*	1	0.0	119	0.0	121
Condom use						
Ever used a condom	0.9	93	na	na	na	na
Never used a condom	0.6	972	na	na	na	na
Condom use at first sex						
Used condom	(3.4)	29	0.2	335	0.5	364
Did not use condom	0.6	1,015	0.4	443	0.5	1,458
Condom use at last sexual intercourse in past 12 months						
Used condom	(2.7)	30	0.0	212	0.3	242
Did not use condom	0.6	958	0.3	480	0.5	1,438
No sexual intercourse in past 12 months	0.0	78	1.0	91	0.6	169
Total	0.6	1,065	0.3	786	0.5	1,851

Note: Condom refers to male condom. Total includes 18 individuals for whom the relative age of first sexual partner is unknown, 1 individual for whom the number of sexual partners in past 12 months is unknown, 25 individuals for whom condom use at first sex is unknown, and 2 individuals for whom condom use at last sexual intercourse is unknown. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent
[2] A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the past 12 months

18.5 HIV Prevalence by Other Characteristics Related to HIV Risk

Table 18.9 presents HIV prevalence by other characteristics related to HIV risk among women and men who have ever had sex. The table shows that those with sexually transmitted infection (STI) or STI symptoms in the past 12 months have significantly higher rates of HIV infection than those with no history or symptoms, particularly among men. Women with a history of STI infection are almost three times as likely to be infected by HIV (1.9 percent) as those without a history of STI infection (0.7 percent). Men with a history of STI infection are almost twenty times as likely to be infected by HIV (13 percent) as those without a history of STI infection (0.7 percent).

Table 18.9 HIV prevalence by other characteristics

Percentage HIV positive among women and men age 15-49 who ever had sex and who were tested for HIV, by whether had an STI in the past 12 months and by prior testing for HIV, Cambodia 2005

Characteristic	Women: Percentage HIV positive	Women: Number	Men: Percentage HIV positive	Men: Number	Total: Percentage HIV positive	Total: Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms	1.9	523	13.0	91	3.5	614
No STI, no symptoms	0.7	4,976	0.7	4,335	0.7	9,311
Prior HIV testing						
Ever tested	3.1	693	2.3	876	2.7	1,569
Received results	3.3	643	2.3	802	2.8	1,445
Did not received results	0.0	50	2.5	74	1.5	124
Never tested	0.5	4,777	0.6	3,558	0.5	8,335
Total	0.8	5,548	0.9	4,453	0.9	10,000

Note: Total includes 75 individuals for whom sexually transmitted infection is unknown and 96 individuals for whom prior HIV testing is unknown.

The table also shows that the women and men who have been tested for HIV have higher rates of HIV infection than those who have never been tested. Among women, 3.1 percent who had been tested for HIV prior to the survey were HIV positive compared with 0.5 percent who had not been tested previously; among men 2.3 percent who had been tested for HIV prior to the survey were HIV positive compared with 0.6 percent who had not been tested previously.

Table 18.10 also shows the relationship between prior HIV testing status and HIV prevalence. Among the men and women who tested positive for HIV as part of the CDHS, 42 percent had been tested for HIV at some time before the CDHS interview, and had received their results. Among those who were found to be HIV negative, only 11 percent had been tested for HIV at some time before the CDHS interview and received their results. This would indicate that a significant proportion of those who are HIV positive already know their status, which is an important first step to preventing widespread infection.

Table 18.10 Prior HIV testing by HIV status

Percent distribution of women and men age 15-49 who tested HIV positive and who tested HIV negative by HIV testing status prior to the survey, Cambodia 2005

HIV testing prior to the survey	Women: Percentage HIV positive	Women: Percentage HIV negative	Men: Percentage HIV positive	Men: Percentage HIV negative	Total: Percentage HIV positive	Total: Percentage HIV negative
Previously tested, received result of last test	(40.4)	8.9	(44.4)	13.2	42.2	10.9
Previously tested, did not receive result of last test	(3.2)	0.8	(4.4)	1.2	3.7	1.0
Not previously tested	(56.4)	88.9	(51.2)	84.8	54.0	87.1
Total	(100.0)	100.0	(100.0)	100.0	100.0	100.0
Number of respondents	49	7,998	42	6,614	91	14,613

Note: Figures in parentheses are based on 25-49 unweighted cases.

18.6 HIV Prevalence Among Couples

Over 3,600 cohabiting couples were tested for HIV in the 2005 CDHS. Results shown in Table 18.11 indicate that, for 99 percent of cohabiting couples, both partners tested negative for HIV. Half of the majority of the remaining couples (0.5 percent) are discordant, that is, one partner is infected and the other is not; most commonly it is the man who is HIV positive while the woman is not. Rates of discordant couples are higher in urban areas (1.6 percent) than in rural areas (0.4 percent).

Table 18.11 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by the HIV status, according to background characteristics, Cambodia 2005

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Woman's age						
15-19	0.2	0.5	0.0	99.3	100.0	148
20-29	0.9	0.6	0.1	98.4	100.0	1,196
30-39	0.3	0.6	0.1	99.0	100.0	1,402
40-49	0.4	0.0	0.0	99.6	100.0	873
Man's Age						
15-19	(0.0)	(0.0)	(0.0)	(100.0)	(100.0)	25
20-29	0.3	0.4	0.2	99.2	100.0	966
30-39	0.5	0.7	0.1	98.7	100.0	1,469
40-49	0.7	0.1	0.0	99.2	100.0	1,160
Age difference between partners						
Woman older	0.1	0.2	0.1	99.6	100.0	774
Same age/ man older by 0-4 years	0.5	0.5	0.1	99.0	100.0	1,995
Man older by 5-9 years	0.3	0.6	0.1	99.0	100.0	670
Man older by 10-14 years	2.2	0.4	0.0	97.4	100.0	138
Man older by 15+ years	(7.6)	(1.6)	(0.9)	(89.9)	(100.0)	43
Residence						
Urban	1.9	1.3	0.2	96.6	100.0	526
Rural	0.3	0.3	0.1	99.4	100.0	3,094
Province						
Banteay Mean Chey	0.6	0.0	0.0	99.4	100.0	142
Kampong Cham	0.6	0.5	0.0	99.0	100.0	518
Kampong Chhnang	0.0	0.0	0.7	99.3	100.0	120
Kampong Speu	0.0	0.3	0.0	99.7	100.0	184
Kampong Thom	0.5	0.6	0.4	98.5	100.0	178
Kandal	0.0	0.5	0.0	99.5	100.0	355
Kratie	0.0	0.6	0.5	98.9	100.0	73
Phnom Penh	2.8	1.3	0.0	95.8	100.0	317
Prey Veng	0.0	0.0	0.0	100.0	100.0	274
Pursat	0.0	0.7	0.4	98.9	100.0	100
Siem Reap	0.6	0.0	0.0	99.4	100.0	256
Svay Rieng	0.0	0.0	0.0	100.0	100.0	152
Takeo	0.0	0.5	0.0	99.5	100.0	264
Otdar Mean Chey	0.0	0.0	0.0	100.0	100.0	40
Battambang/Krong Pailin	0.5	0.8	0.0	98.7	100.0	245
Kampot/Krong Kep	0.6	0.8	0.5	98.1	100.0	183
Krong Preah Sihanouk/Kaoh Kong	0.4	0.4	0.0	99.2	100.0	80
Preah Vihear/Steung Treng	0.4	0.0	0.0	99.6	100.0	73
Mondol Kiri/Rattanak Kiri	0.0	0.0	0.0	100.0	100.0	65
Woman's education						
No schooling	1.0	0.4	0.0	98.7	100.0	831
Primary	0.4	0.4	0.1	99.2	100.0	2,095
Secondary and higher	0.3	0.8	0.2	98.7	100.0	694
Man's education						
No schooling	0.2	0.0	0.0	99.8	100.0	440
Primary	0.6	0.1	0.0	99.3	100.0	1,889
Secondary and higher	0.4	1.1	0.2	98.3	100.0	1,291
Wealth quintile						
Lowest	0.3	0.1	0.1	99.6	100.0	657
Second	0.2	0.0	0.1	99.6	100.0	722
Middle	0.1	0.1	0.0	99.7	100.0	756
Fourth	0.5	0.4	0.2	98.9	100.0	755
Highest	1.3	1.5	0.1	97.1	100.0	730
Total	0.5	0.4	0.1	99.0	100.0	3,620

Note: Table based on couples for which a valid test result (positive or negative) is available for both partners. Figures in parentheses are based on 25-49 unweighted cases.

CHILDREN AT RISK 19

One of the most serious impacts of the HIV/AIDS epidemic is the dramatic increase in the number of children orphaned and put at risk by the death or chronic illness of one or more of the adults in their household. Deprived of these adults' protection, such children are at increased risk of trafficking, violence, exploitation, and other forms of abuse.

Goals have been established aimed at developing policies and strategies to support orphans and children at risk by ensuring their access to education, proper nutrition, and health and social services. The 2005 Cambodia DHS gathered data aimed at measuring the condition of at-risk children, some of which are presented in this chapter.

19.1 ORPHANHOOD AND CHILDREN'S LIVING ARRANGEMENTS

Because the family is the primary safety net for children, any strategy aimed at protecting children must place a high priority on strengthening family capacities to care for children. It is therefore essential to identify orphaned children and find out whether those who have one or both parents living are living with either or both surviving parents. Table 19.1 presents these two types of information for children under age 18, according to selected background characteristics.

The data show that 79 percent of Cambodian children under the age of 18 live with both their parents. This proportion declines slightly with age, from a high of 89 percent at age 0-1 year and 82 percent at age 5 to 9 years, to 70 percent at age 15 to 17 years. The results show practically no difference according to the child's sex. The proportion of children living with both parents is somewhat higher in rural areas (80 percent) than in urban areas (76 percent). In addition, 11 percent of children under age 18 live with their mother only, whether their father is alive or deceased, and 2 percent live with their father only. Seven percent do not live with either parent.

Overall, 9 percent of children under age 18 have lost their father and/or mother: 1 percent have lost both parents, 7 percent have lost their father, and 3 percent have lost their mother. Because a parent's risk of dying increases with time, the proportion of children who have lost their father and/or mother increases significantly with the age of the child, from 2 percent at ages 0 to 1 year, to 3 percent at ages 2 to 4 years, to 7 percent at ages 5 to 9 years. These proportions jump to higher levels among children ages 10 to 14 (12 percent) and 15 to 17 (16 percent).

Table 19.1 Children's living arrangements and orphanhood

Percent distribution of children under age 18 by children's living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Cambodia 2005

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing information on father/ mother	Total	Percentage with one or both parents dead	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead				
Age													
0-4	87.2	6.0	1.8	0.5	0.3	3.3	0.2	0.2	0.1	0.2	100.0	2.7	7,793
<2	89.1	6.3	1.3	0.4	0.4	2.1	0.1	0.1	0.1	0.1	100.0	2.0	3,204
2-4	85.9	5.8	2.1	0.5	0.3	4.2	0.2	0.4	0.2	0.3	100.0	3.2	4,590
5-9	82.0	5.8	4.1	0.5	0.7	5.0	0.5	0.7	0.5	0.2	100.0	6.5	8,463
10-14	75.6	5.8	7.1	0.8	1.4	5.9	0.9	1.2	1.1	0.3	100.0	11.7	10,349
15-17	70.0	4.9	9.8	1.0	2.0	7.1	1.1	1.6	1.4	1.2	100.0	15.9	5,227
Sex													
Male	79.6	5.2	5.6	0.8	1.2	5.0	0.6	0.9	0.7	0.4	100.0	9.0	16,018
Female	78.8	6.2	5.4	0.6	0.9	5.4	0.7	0.9	0.8	0.4	100.0	8.6	15,814
Residence													
Urban	75.7	6.2	5.9	0.7	1.0	7.0	0.9	0.8	1.2	0.6	100.0	9.7	4,374
Rural	79.8	5.6	5.4	0.7	1.1	4.9	0.6	0.9	0.7	0.4	100.0	8.6	27,458
Province													
Banteay Mean Chey	82.6	1.2	5.0	0.2	0.8	6.5	0.6	1.0	1.6	0.5	100.0	9.0	1,362
Kampong Cham	77.5	5.9	5.5	0.8	0.8	6.7	0.4	1.3	0.5	0.4	100.0	8.6	4,053
Kampong Chhnang	78.7	7.7	5.8	0.6	0.6	4.7	0.4	0.5	0.3	0.6	100.0	7.7	1,203
Kampong Speu	77.0	8.4	5.9	1.1	0.5	4.8	0.5	0.9	0.6	0.4	100.0	8.2	1,870
Kampong Thom	81.7	4.4	5.7	0.5	1.5	4.1	1.1	0.4	0.4	0.2	100.0	9.2	1,623
Kandal	81.3	5.5	5.8	1.1	1.2	3.3	0.5	0.6	0.6	0.2	100.0	8.7	2,973
Kratie	81.1	7.5	3.4	0.7	1.4	3.7	0.7	0.6	0.5	0.4	100.0	6.5	694
Phnom Penh	72.8	7.5	5.6	0.5	0.4	9.1	0.7	1.3	1.0	1.0	100.0	9.1	2,276
Prey Veng	73.9	10.7	4.3	0.8	2.2	6.6	0.5	0.3	0.2	0.5	100.0	7.5	2,502
Pursat	81.8	5.1	5.9	0.7	0.8	2.6	0.4	0.8	1.4	0.5	100.0	9.3	1,019
Siem Reap	80.4	3.2	6.2	0.5	1.2	5.1	0.8	1.3	1.2	0.2	100.0	10.6	2,340
Svay Rieng	82.0	4.6	4.4	0.1	1.2	5.1	1.1	0.5	0.8	0.1	100.0	8.1	1,261
Takeo	80.6	4.6	5.3	0.7	1.4	5.3	0.4	0.7	0.5	0.5	100.0	8.3	2,205
Otdar Mean Chey	79.7	3.6	10.4	0.3	0.7	2.8	1.0	0.9	0.5	0.1	100.0	13.5	411
Battambang/ Krong Pailin	79.9	3.9	6.3	0.7	0.8	4.4	0.7	1.6	1.5	0.3	100.0	10.8	2,344
Kampot/Krong Kep	80.6	5.0	4.9	0.5	1.4	5.1	0.6	0.8	0.7	0.4	100.0	8.4	1,639
Krong Preah Sihanouk/ Kaoh Kong	78.2	9.4	4.7	0.5	0.5	4.8	0.7	0.3	0.5	0.3	100.0	6.7	779
Preah Vihear/ Steung Treng	85.0	2.9	5.3	0.5	1.0	2.2	1.2	1.0	0.5	0.4	100.0	9.0	723
Mondol Kiri/ Rattanak Kiri	87.8	2.5	4.0	0.1	1.2	2.4	0.8	0.2	0.7	0.2	100.0	6.9	556
Wealth quintile													
Lowest	77.4	7.0	6.9	0.3	1.7	4.3	0.5	0.8	0.6	0.4	100.0	10.6	7,269
Second	80.6	5.6	6.2	0.9	1.0	3.8	0.6	0.4	0.7	0.3	100.0	8.8	6,687
Middle	81.7	5.1	4.3	0.6	1.1	4.9	0.9	0.7	0.5	0.3	100.0	7.4	6,407
Fourth	79.8	4.7	5.4	0.9	0.7	5.6	0.5	1.3	0.9	0.2	100.0	8.7	6,138
Highest	76.4	6.1	4.2	0.7	0.8	8.1	0.6	1.3	1.1	0.8	100.0	8.0	5,330
Total <15	81.1	5.9	4.6	0.6	0.9	4.8	0.5	0.7	0.6	0.2	100.0	7.4	26,606
Total <18	79.2	5.7	5.5	0.7	1.1	5.2	0.6	0.9	0.7	0.4	100.0	8.8	31,832

Note: Table is based on de jure household members, i.e., usual household members.

19.2 SCHOOL ATTENDANCE

Access to education is considered an "essential service" and is included among the key components of national responses to guarantee that children who have been orphaned have access to services on an equal basis with other children. Table 19.2 assesses whether children who have been orphaned are educationally disadvantaged in relation to other children. The results are presented for children between the ages of 10 and 14 years, which is the age group at which school attendance is generally assumed for all children.

Table 19.2 School attendance by survivorship of parents

For children 10-14 years of age, the percentage attending school by parental survival according to background characteristics, Cambodia 2005

Background characteristic	Percentage attending school by survivorship of parents: Both parents dead		Both parents alive and living with at least one parent		Ratio[1]
	Percentage	Number	Percentage	Number	
Sex					
Male	74.1	57	92.5	4,254	0.8
Female	78.2	56	90.8	4,253	0.9
Residence					
Urban	(75.4)	31	92.4	1,100	0.8
Rural	76.4	83	91.5	7,408	0.8
Total	76.1	114	91.6	8,508	0.8

Note: Table is based on de jure household members, i.e., usual household members. Figures in parentheses are based on 25-49 unweighted cases.
[1] Ratio of the percentage with both parents dead to the percentage with both parents alive and living with a parent.

The data show a clear relationship between parent survivorship and school attendance of children ages 10 to 14. Whereas 92 percent of children whose parents are both alive and who are living with one of their parents attend school, only 76 percent of children who have lost both parents attend school. The ratio of school attendance among orphaned to non orphaned children is less than 1, indicating an educational disadvantage among orphans, in relation to other Cambodian children.

19.3 BASIC MATERIAL NEEDS

The 2005 CDHS enquired whether children age 5-17 possessed three basic needs: shoes, two sets of clothing, and a blanket. Nationally, 85 percent of children reported having a pair of shoes, 94 percent reported having two sets of clothing and 75 percent reported having a blanket (Table 19.3). Overall, 69 percent of children age 5-17 were reported to possess all three basic needs. The percentage of children having all three basic needs was highest in Phnom Penh (86 percent) and Krong Preah Sihanouk/Kaoh Kong (85 percent) and lowest in Kampong Chhnang (39 percent). Not surprisingly, children from the wealthiest households, are more likely to have all three basic material needs (91 percent) than children from the poorest households (47 percent).

Table 19.3 also shows the same information by orphanhood status, comparing the children age 5-17 for whom one or both of their natural parents has died, to children for whom both natural parents are living. In general, children who are orphans do as well as non-orphans with regard to the provision of these three basic needs. Orphans age 5-9 years and those living in Banteay Mean Chey and Prey Veng do slightly less well than the non-orphans in the same groups.

Table 19.3 Possession of basic material needs by orphanhood status

Among children age 5-17 years, the percentage possessing three minimum basic material needs, the percentages of orphaned children and non-orphaned children who possess all three basic material needs, and the ratio of the percentage for orphaned children to the percentage for non-orphaned children, according to background characteristics, Cambodia 2005

	Among children 5-17 years of age percentage possessing:					Percentage possessing all three basic needs[1] by orphanhood status				
						One or both parents dead		Non-orphans		
Background characteristic	Shoes	Two sets of clothes	Blanket	All three basic needs[1]	Number of children	Percentage	Number	Percentage	Number	Ratio[2]
Age										
5-9	76.4	92.0	67.1	58.8	8,463	49.6	547	59.4	7,916	0.8
10-14	87.7	95.4	76.9	72.0	10,349	64.9	1,208	72.9	9,141	0.9
15-17	93.2	95.5	83.5	81.4	5,227	80.2	830	81.6	4,396	1.0
Sex										
Male	83.5	93.3	74.6	68.2	12,146	64.4	1,317	68.7	10,829	0.9
Female	86.4	95.2	75.1	70.5	11,893	68.8	1,269	70.7	10,624	1.0
Residence										
Urban	92.3	96.8	83.6	81.4	3,306	77.1	411	82.0	2,895	0.9
Rural	83.8	93.8	73.5	67.4	20,732	64.6	2,175	67.8	18,558	1.0
Province										
Banteay Mean Chey	79.8	94.8	54.6	50.5	1,023	39.3	111	51.9	912	0.8
Kampong Cham	86.1	93.9	87.7	80.9	3,077	79.2	317	81.1	2,761	1.0
Kampong Chhnang	77.7	96.8	41.8	38.8	890	41.5	79	38.5	811	1.1
Kampong Speu	83.5	96.0	77.5	69.4	1,404	70.5	139	69.3	1,265	1.0
Kampong Thom	69.9	83.5	73.3	57.3	1,233	62.1	140	56.7	1,093	1.1
Kandal	95.7	98.2	82.0	80.5	2,284	85.3	234	79.9	2,050	1.1
Kratie	87.9	94.7	79.5	74.2	499	73.2	40	74.3	458	1.0
Phnom Penh	93.3	96.3	86.8	85.9	1,686	87.9	203	85.7	1,484	1.0
Prey Veng	67.5	82.8	71.2	56.6	1,883	44.1	176	57.9	1,707	0.8
Pursat	86.1	96.6	69.0	65.7	801	59.1	89	66.6	712	0.9
Siem Reap	79.5	96.7	56.3	52.1	1,693	48.9	233	52.6	1,460	0.9
Svay Rieng	84.1	91.6	80.1	72.4	996	69.6	93	72.7	903	1.0
Takeo	89.0	96.9	78.1	74.7	1,699	68.6	162	75.3	1,537	0.9
Otdar Mean Chey	86.0	91.0	52.2	49.6	315	48.1	52	49.9	263	1.0
Battambang/Krong Pailin	94.4	96.6	75.0	74.0	1,820	69.7	244	74.7	1,577	0.9
Kampot/Krong Kep	89.7	98.8	85.9	81.0	1,259	70.4	128	82.2	1,130	0.9
Krong Preah Sihanouk/ Kaoh Kong	91.2	97.7	88.8	85.3	581	87.9	47	85.1	534	1.0
Preah Vihear/Steung Treng	77.6	89.8	61.6	54.9	510	53.4	62	55.1	448	1.0
Mondol Kiri/Rattanak Kiri	84.7	96.1	60.1	57.0	385	60.4	36	56.7	349	1.1
Wealth quintile										
Lowest	67.7	87.9	58.2	47.3	5,168	48.5	689	47.1	4,479	1.0
Second	80.6	92.7	67.3	60.3	4,945	54.9	547	61.0	4,398	0.9
Middle	87.7	95.4	78.0	72.3	5,024	75.5	435	71.9	4,589	1.1
Fourth	94.3	98.0	83.1	80.8	4,839	77.7	504	81.2	4,335	1.0
Highest	97.4	98.1	91.6	91.2	4,064	89.4	412	91.4	3,652	1.0
Total	84.9	94.2	74.9	69.4	24,039	66.6	2,586	69.7	21,453	1.0

Note: Table is based on de jure household members, i.e., usual household members
[1] Shoes, two sets of clothing, a blanket
[2] Ratio of the percentage for orphaned children (i.e. with one or both parents deceased) to the percentage for non-orphaned children (i.e. with neither parent deceased)

19.4 Separation of Siblings

Once a child has lost one or both parents, it is not an uncommon strategy for the living adults responsible for the child to reduce their own burden of care to disburse the orphaned siblings to different households, lessening the burden of care for any one household. This in turn may cause significant stress to the siblings who are consequently separated from one another. Table 19.4 presents the percentage of orphans who are not living with all of their siblings who are under the age of 18. Once a child has reached the age of 18 he or she is considered to be an adult and may be living on his or her own.

The 2005 CDHS found that 17 percent of children who have lost one or both parents are not living with all their siblings who are also under the age of 18 years. It is more common for orphans to be separated from their siblings when it is either their mother (24 percent) or both parents who have died (28 percent), compared with if the father has died (14 percent). Over 30 percent of orphans living in Kampong Speu and Takeo are separated from his/her siblings, as compared with less than 3 percent in Battambang/Krong Kep.

19.5 Succession Planning

Strengthening family capacities to support and protect orphans is essential. Identifying someone who will care for a child if his caregiver dies or falls ill is one way to ensure a better future for children.

In Cambodia, 52 percent of women and men reported being primary caregivers to children under age 18, irrespective of whether these children were their own (Table 19.5). This proportion increases significantly with the age of the respondent, from 15 percent among respondents ages 15 to 19, to 75 percent among those age 40 to 49. Far more women (62 percent) than men (27 percent) report being a child's primary caregiver. Caregiver status is inversely related to education level: women and men with a higher level of education are less likely to be a caregiver (38 percent) than those with no schooling (67 percent).

Among these primary caregivers, 74 percent said that they had made arrangements to have someone care for these children in the event of their own illness or death. Although men are far less likely to be a primary caregiver than women, the proportion of male caregivers who have made succession arrangements is higher (90 percent) than female caregivers (72 percent). The percentage of caregivers who have made arrangements is also somewhat higher in rural areas (75 percent) than in urban areas (70 percent). It is highest in Takeo, Pursat, and Kampong Chhnang (between 98 and 100 percent) and lowest in Kampot/Krong Kep (33 percent).

Table 19.4 Orphans not living with siblings

Among orphans under age 18 years who have one or more siblings under age 18 years, the percentage who do not live with all their siblings under age 18, by background characteristics, Cambodia 2005

Background characteristic	Percentage of orphans not living with all siblings	Number of orphans with one or more siblings
Age		
0-4	13.3	132
5-9	12.9	398
10-14	16.3	896
15-17	20.4	558
Sex		
Male	17.6	1,024
Female	15.5	961
Orphanhood status		
Maternal orphan	24.1	388
Paternal orphan	13.5	1,465
Both parents dead	28.1	131
Residence		
Urban	13.9	301
Rural	17.0	1,683
Province		
Banteay Mean Chey	9.4	76
Kampong Cham	19.6	198
Kampong Chhnang	26.6	62
Kampong Speu	30.7	101
Kampong Thom	16.0	110
Kandal	10.8	194
Kratie	21.3	36
Phnom Penh	22.1	137
Prey Veng	11.4	140
Pursat	6.4	68
Siem Reap	16.8	199
Svay Rieng	7.0	73
Takeo	30.4	135
Otdar Mean Chey	13.9	51
Battambang/Krong Pailin	2.6	199
Kampot/Krong Kep	26.8	95
Krong Preah Sihanouk/ Kaoh Kong	18.3	32
Preah Vihear/Steung Treng	22.0	50
Mondol Kiri/Rattanak Kiri	14.7	28
Wealth quintile		
Lowest	14.6	560
Second	12.1	429
Middle	21.4	334
Fourth	15.7	366
Highest	22.3	295
Total	16.6	1,984

Note: Table is based on de jure household members, i.e., usual household members

Table 19.5 Succession planning

Percentage of de facto women and men age 15-49 who are the primary caregivers of children under age 18 years, and among the primary caregivers, the percentage who have made arrangements for someone else to care for the children in the event of their own inability to do so due to illness or death, by background characteristics, Cambodia 2005

Background characteristic	Percentage of women and men who are primary caregivers	Number of women and men 15-49	Percentage of caregivers who have made succession arrangements	Number of primary caregivers
Age				
15-19	15.1	5,264	81.6	795
20-29	47.0	7,148	77.0	3,356
30-39	72.3	5,980	72.9	4,323
40-49	74.5	5,163	71.8	3,849
Sex				
Male	27.1	6,731	90.2	1,825
Female	62.4	16,823	71.5	10,499
Education				
No schooling	66.8	3,876	70.0	2,590
Primary	55.9	12,649	73.6	7,073
Secondary and higher	38.3	6,614	79.8	2,533
Residence				
Urban	46.1	4,106	69.6	1,891
Rural	53.6	19,448	75.1	10,432
Province				
Banteay Mean Chey	56.2	902	58.0	507
Kampong Cham	41.8	2,986	72.5	1,249
Kampong Chhnang	47.2	790	97.7	373
Kampong Speu	62.4	1,218	73.9	760
Kampong Thom	50.5	1,130	66.3	571
Kandal	56.5	2,294	79.6	1,297
Kratie	45.8	458	68.6	210
Phnom Penh	45.6	2,633	63.6	1,201
Prey Veng	51.2	1,877	89.8	961
Pursat	46.5	682	98.5	317
Siem Reap	55.4	1,661	67.8	920
Svay Rieng	44.8	939	75.4	421
Takeo	69.9	1,593	99.5	1,113
Otdar Mean Chey	60.2	246	80.4	148
Battambang/Krong Pailin	48.8	1,703	83.2	832
Kampot/Krong Kep	69.7	1,160	32.5	808
Krong Preah Sihanouk/ Kaoh Kong	48.2	540	90.1	260
Preah Vihear/Steung Treng	66.6	416	47.9	277
Mondol Kiri/Rattanak Kiri	30.4	325	42.3	99
Wealth quintile				
Lowest	58.4	4,095	72.6	2,390
Second	56.7	4,382	74.3	2,484
Middle	53.2	4,597	75.4	2,443
Fourth	51.3	4,776	77.0	2,448
Highest	44.8	5,704	72.1	2,558
Total	52.3	23,554	74.3	12,323

Note: Table is based on de facto household members, i.e. who slept in household the night preceding the interview

19.6 DISPOSSESSION OF PROPERTY

Dispossession of property can worsen the vulnerability of people who care for children and the children themselves. It is therefore important to ensure that inheritance laws include enforcement mechanisms to ensure the right of women and children to inherit property after the death of a husband or father (UNICEF, 2005).

Table 19.6 presents the proportion of women who were or are widows (ever-widowed) and the prevalence of dispossession. Altogether, 6 percent of women surveyed were ever-widowed. This proportion naturally increases with the age of the woman, from 2 percent at ages 20 to 29, to 16 percent at ages 40 to 49. Women with no schooling (10 percent) are more likely to have ever been widowed than women with secondary or higher schooling (2 percent).

Forty-five percent of all ever-widowed women reported that their husbands did not have any possessions or assets; therefore, Table 19.6 presents the percentage of ever-widowed women who were dispossessed of their property after the death of their husband among those women whose husbands had any possessions. Overall, 8 percent of ever-widowed women reported that their late husbands' possessions went to someone other than themselves, among those women whose husbands did have some possessions, assets, or property.

Table 19.6 Widows dispossessed of assets and valuables

Percentage of de facto women age 15-49 who have been widowed, and the percentage of widowed women who reported that most of their late husbands' possessions went to someone other than themselves, among widows whose husbands had possessions, Cambodia 2005

			Among ever-widowed women:	
Background characteristic	Percentage of ever-widowed women	Number of women	Percentage of widows who were dispossessed of assets[1]	Number of ever-widowed women whose husbands had possessions[2]
Age				
15-19	0.2	3,601	*	3
20-29	1.5	5,096	(13.5)	33
30-39	6.1	4,311	12.0	131
40-49	15.9	3,815	5.7	326
Age of youngest child				
No children	0.7	6,203	*	11
<18 years	7.8	10,309	7.4	436
18+ years	33.1	312	(9.1)	46
Residence				
Urban	5.0	2,973	18.2	77
Rural	5.8	13,850	6.0	416
Education				
No schooling	10.2	3,270	7.5	154
Primary	5.6	9,389	6.0	288
Secondary and higher	2.2	3,975	18.1	51
Wealth quintile				
Lowest	7.7	3,017	9.0	132
Second	6.9	3,164	6.3	105
Middle	5.2	3,245	5.3	80
Fourth	4.9	3,308	9.6	93
Highest	4.1	4,089	8.6	84
Total	5.7	16,823	7.9	493

Note: Table is based on de facto women, i.e., who slept in the household the night preceding the interview. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Dispossessed of assets indicates that the late husband's property, assets, or valuables went to someone other than the respondent.

[2] Excluding women who reported their husbands had no property, assets, or valuables.

WOMEN'S STATUS AND EMPOWERMENT 20

To examine the status of women in Cambodia, the CDHS 2005 included a special women's status module of questions. The study of women's status and empowerment is important on its own, but takes on a special significance in conjunction with the study of demographic and health outcomes. Women are the targets directly or indirectly (as the caretakers of their children) of a number of population, health, and nutrition programs. The constraints that women face in learning about, accessing, and utilizing these and other developmental programs are inherently tied to their status in society, as well as in their home.

Recognizing the multifaceted nature of women's status and empowerment, the women's status module included questions that explore various aspects of women's status and empowerment, including women's role in selecting their spouse, degree of participation in household decision-making, spousal communication, control over household income and expenditures, ownership of assets, degree of isolation from natal families, participation in civil society, and knowledge of various laws related to women's rights. The module also contained a set of three questions that explore women's beliefs about gender roles. Information from the women's status module is designed to be complementary to the marriage, education, and employment information discussed earlier.

The women's status module was implemented in one-fourth of the households included in the CDHS 2005 sample. Thus, the women's status questions were asked of women in one out of every four selected sample households and yielded a total of 4,201 completed interviews.

20.1 MARRIAGE PATTERNS

Marriage patterns are greatly influenced by culture and tradition, and their study often yields important insights into women's status and empowerment in society, as well as in their marriage. At the individual level, various aspects of a woman's marriage are likely to affect the amount of autonomy and control she has in her married life.

Spouse Selection

The CDHS 2005 asked ever-married women how long they had known their husband before their marriage and who chose their husband for them. For women who were married more than once, these questions refer to their current or most recent husband only. Table 20.1 shows the length of time women knew their husband before marriage, as well as the persons involved in the choice of the husband by background characteristics.

Eighteen percent of ever-married women in Cambodia met their husband for the first time at the time of marriage. An additional 9 percent knew their husband for less than one month before their marriage. These data suggest that one quarter of all ever-married women were married to relative strangers. However, it should be noted that this figure is fully half of the corresponding proportion observed in the 2000 CDHS. The likelihood that a woman met her husband for the first time at the time of marriage is considerably greater among women age 30 or older (about 21 percent) than among younger women (8 percent among 15-19 year olds and 12 percent among 20-24 years olds); this age-related observation continues the trend observed in 2000, which suggests that this practice may be declining over time.

Table 20.1 Choice of spouse

Percent distribution of ever-married women by length of time they knew their husband before marriage and degree of involvement in spouse selection, according to background characteristics, Cambodia 2005

Background characteristic	Length of time woman knew husband before marriage						Person who chose husband								Number of women
	Met on wedding day	Knew less than 1 month	Knew less than 1 year	Knew 1 year or more	Knew since child-hood	Total	Respon-dent	Respon-dent and hus-band	Respon-dent with some-one else	Respon-dent's family	Hus-band or his family choose respon-dent	Some-one else	Forced by hus-band	Total	
Age															
15-19	8.1	10.2	45.4	20.7	15.6	100.0	10.6	8.1	31.7	40.4	5.3	2.0	1.9	100.0	100
20-29	12.2	8.3	36.1	18.6	24.7	100.0	12.6	10.0	30.8	32.2	11.2	3.0	0.2	100.0	883
30-39	20.7	9.9	28.3	16.2	24.8	100.0	10.0	7.2	30.1	35.8	12.1	4.6	0.1	100.0	975
40-49	21.9	8.1	27.0	17.8	24.7	100.0	11.8	5.6	26.4	37.8	10.2	7.0	1.0	100.0	875
Age at first marriage															
< 16	15.9	7.2	29.7	16.2	31.0	100.0	11.3	10.5	29.5	35.2	9.0	3.7	0.8	100.0	252
16-18	16.3	9.4	32.1	18.5	23.4	100.0	9.1	7.3	32.1	34.4	11.3	5.2	0.4	100.0	987
19-21	19.7	7.3	30.3	15.7	27.1	100.0	11.6	7.6	30.4	35.0	9.7	5.4	0.2	100.0	616
22-25	21.3	9.3	33.0	17.0	19.1	100.0	11.9	6.3	25.4	38.4	13.2	4.3	0.2	100.0	477
25 or older	17.1	10.0	28.1	19.7	24.9	100.0	15.2	8.1	25.5	35.3	10.9	4.1	1.0	100.0	501
Education															
No education	15.9	7.9	28.1	19.6	28.4	100.0	14.3	10.5	26.2	32.2	10.2	5.6	0.9	100.0	668
Primary	17.4	9.3	30.6	16.5	26.0	100.0	10.5	7.4	27.8	38.2	11.1	4.4	0.4	100.0	1,659
Secondary or more	22.6	8.7	35.8	18.8	13.9	100.0	10.5	4.7	37.6	30.6	11.7	4.8	0.2	100.0	506
Residence															
Urban	17.4	11.5	35.4	25.6	9.6	100.0	19.1	6.7	25.6	35.6	6.9	5.2	0.7	100.0	452
Rural	18.1	8.3	30.1	16.1	27.2	100.0	10.0	7.8	29.9	35.4	11.8	4.7	0.4	100.0	2,381
Province															
Banteay Mean Chey	4.1	7.8	32.4	20.9	34.1	100.0	13.0	0.0	6.4	72.5	6.7	0.7	0.6	100.0	119
Kampong Cham	30.6	6.1	19.9	18.0	25.1	100.0	10.8	6.2	46.9	32.0	0.7	3.1	0.0	100.0	361
Kampong Chhnang	9.5	6.5	25.5	17.8	39.9	100.0	3.1	22.8	30.5	11.5	22.8	7.2	2.1	100.0	102
Kampong Speu	6.8	15.3	29.1	14.0	34.9	100.0	9.4	1.1	40.9	37.5	10.4	0.7	0.0	100.0	152
Kampong Thom	39.5	2.4	15.8	4.9	37.2	100.0	4.0	7.0	2.0	79.4	5.0	0.7	1.8	100.0	135
Kandal	15.3	18.9	40.3	11.8	13.6	100.0	9.0	0.8	43.3	29.5	4.5	12.9	0.0	100.0	257
Kratie	45.9	1.5	25.0	13.9	13.1	100.0	10.1	10.4	3.3	49.4	18.4	7.8	0.7	100.0	54
Phnom Penh	13.5	9.5	39.0	30.7	7.4	100.0	26.3	0.5	25.1	37.9	7.5	2.2	0.5	100.0	282
Prey Veng	25.0	3.4	28.9	6.9	35.8	100.0	4.6	3.3	34.4	50.5	1.4	5.8	0.0	100.0	243
Pursat	11.4	6.3	24.5	33.5	24.2	100.0	5.9	7.2	52.7	25.6	8.6	0.0	0.0	100.0	73
Siem Reap	8.4	6.1	32.5	20.5	32.6	100.0	36.1	12.9	14.2	18.4	5.6	10.9	1.9	100.0	217
Svay Rieng	22.8	3.0	26.4	20.2	27.6	100.0	11.0	4.8	8.3	44.7	23.9	6.3	0.8	100.0	109
Takeo	20.5	9.2	27.4	8.4	34.5	100.0	0.7	6.4	8.9	16.0	63.5	4.6	0.0	100.0	191
Otdar Mean Chey	35.2	28.6	27.8	7.4	1.0	100.0	15.0	20.1	0.2	61.7	0.6	2.0	0.5	100.0	35
Battambang/Krong Pailin	16.6	6.5	40.0	25.8	11.1	100.0	1.5	25.6	30.2	27.5	12.5	2.8	0.0	100.0	182
Kampot/Krong Kep	1.8	13.4	36.8	19.5	27.9	100.0	1.8	7.0	69.6	16.6	3.6	0.7	0.0	100.0	152
Krong Preah Sihanouk/ Kaoh Kong	17.7	12.3	40.0	22.9	6.6	100.0	12.2	10.7	3.9	46.9	16.2	8.9	0.7	100.0	68
Preah Vihear/ Steung Treng	11.7	15.5	40.6	16.4	15.3	100.0	16.2	16.4	28.3	28.7	6.4	4.0	0.0	100.0	64
Mondol Kiri/ Rattanak Kiri	7.8	6.5	44.5	26.9	14.3	100.0	16.0	23.1	28.8	26.4	0.6	5.2	0.0	100.0	38
Marriage contract															
Yes	16.5	7.4	30.5	18.4	26.5	100.0	18.3	11.1	24.5	31.4	6.9	6.0	1.5	100.0	672
No	18.5	9.3	31.1	17.4	23.8	100.0	9.3	6.5	30.7	36.7	12.3	4.4	0.1	100.0	2,162
Total	18.0	8.8	31.0	17.6	24.4	100.0	11.4	7.6	29.2	35.4	11.0	4.8	0.4	100.0	2,833

Table 20.1 also shows that few women choose their own husband. Only 19 percent of ever-married women chose their husband (chose alone or the respondent and her husband chose each other jointly). In addition, 29 percent of women chose their husband jointly with someone else. The remaining majority of women (52 percent) did not participate at all in the choice of their husband. For 11 percent of all ever-married women, the husband was chosen by his own family only.

Urban women (19 percent) are more likely than rural women (10 percent) to have chosen their own husband. By region, self-choice of spouse is most common in Siem Reap, where 36 percent of women say that they chose their own husband. Women in Takeo are least likely to have chosen their own husband.

Table 20.2 shows data on interspousal age and education differences by background characteristics for currently married women. Currently married Cambodian women are, on average, only 2.9 years younger than their husband. Notably, 13 percent of women are at least two or more years older than their husband, and another 25 percent are about the same age (husband younger or older by no more than one year). Only 8 percent of all currently married women are married to men who are ten or more years older than them. The mean spousal age difference is higher for currently married women age 15-19 (five years) than for older women.

Table 20.2 Differences in age and education between spouses

Percent distribution of currently married women by interspousal age differences and by difference in years of education, and mean age and educational differences, according to background characteristics, Cambodia 2005

	Interspousal age difference							Interspousal education differential						
	Wife older by 2+ years	About the same age	Husband older than wife by: 2-4 years	5-9 years	10+ years	Total	Mean difference in age (husband-wife)	Husband better educated	Wife better educated	Both have equal education	Neither educated	Total	Mean difference in years of education (husband-wife)	Number of women
Age														
15-19	0.0	18.1	29.3	36.5	16.2	100.0	5.3	45.8	29.0	17.4	7.1	100.0	1.1	93
20-29	6.7	23.5	35.4	24.7	9.7	100.0	3.8	57.9	20.8	13.3	6.3	100.0	1.8	819
30-39	15.0	28.2	30.1	21.0	5.7	100.0	2.5	52.8	21.7	18.9	5.7	100.0	1.4	882
40-49	18.3	25.1	30.6	18.9	7.0	100.0	2.2	55.7	16.8	15.4	11.4	100.0	1.7	715
Age at first marriage														
< 16	3.6	12.0	31.9	39.9	12.6	100.0	5.0	62.3	12.4	15.4	7.4	100.0	2.1	224
16-18	4.0	23.9	36.1	27.5	8.5	100.0	3.8	56.9	20.9	14.4	7.4	100.0	1.6	894
19-21	11.6	29.0	34.4	17.8	7.2	100.0	2.7	51.8	21.4	15.5	10.4	100.0	1.5	521
22-25	26.0	29.3	25.1	16.2	3.3	100.0	1.2	53.2	21.9	17.6	5.7	100.0	1.4	438
25 or older	23.1	27.3	27.2	13.4	9.1	100.0	2.0	53.0	20.1	18.7	6.5	100.0	1.6	431
Education														
No education	15.7	27.9	28.9	20.2	7.3	100.0	2.5	65.5	0.0	0.0	33.4	100.0	3.0	568
Primary	13.4	24.3	33.1	21.9	7.3	100.0	2.9	57.0	23.7	17.9	0.0	100.0	1.4	1,487
Secondary or more	6.6	25.8	31.8	25.7	10.1	100.0	3.7	35.3	34.2	29.8	0.0	100.0	0.2	453
Husband's education														
No education	19.9	32.9	25.4	16.7	5.1	100.0	1.6	0.0	39.9	0.0	60.1	100.0	-1.2	316
Primary	13.4	25.7	34.1	20.7	6.2	100.0	2.6	55.0	25.0	20.0	0.0	100.0	0.9	1,333
Secondary or more	9.0	22.3	31.3	26.7	10.7	100.0	3.9	77.9	5.9	16.2	0.0	100.0	3.7	831
Residence														
Urban	10.1	19.5	33.1	21.6	15.7	100.0	4.2	60.9	16.8	17.6	3.3	100.0	2.2	400
Rural	13.2	26.5	31.7	22.3	6.3	100.0	2.7	53.9	20.9	15.7	8.4	100.0	1.5	2,109
Province														
Banteay Mean Chey	9.7	23.5	28.0	34.0	4.8	100.0	3.4	56.8	20.1	15.0	6.2	100.0	1.3	114
Kampong Cham	10.9	28.5	30.9	23.2	6.5	100.0	2.6	48.5	20.8	19.8	9.3	100.0	1.1	304
Kampong Chhnang	17.9	22.5	27.8	25.6	6.2	100.0	2.7	63.7	21.4	10.4	4.0	100.0	1.5	87
Kampong Speu	16.8	25.3	37.7	15.1	5.2	100.0	2.3	61.2	18.1	11.8	5.4	100.0	1.9	128
Kampong Thom	10.9	26.6	32.3	23.4	6.8	100.0	2.8	47.2	24.7	19.4	8.7	100.0	1.1	122
Kandal	8.0	23.7	33.6	24.8	9.9	100.0	3.6	49.0	29.8	17.6	3.6	100.0	1.5	225
Kratie	11.7	19.1	28.7	29.1	11.4	100.0	3.8	52.6	24.0	15.4	7.2	100.0	1.3	49
Phnom Penh	8.4	16.4	35.3	22.9	16.9	100.0	4.8	65.3	13.3	17.5	3.2	100.0	2.7	238
Prey Veng	12.0	36.3	32.7	16.5	2.5	100.0	1.9	57.1	20.1	14.4	6.1	100.0	1.8	221
Pursat	13.0	25.6	38.0	15.2	8.2	100.0	2.5	57.7	15.7	15.5	11.0	100.0	1.6	65
Siem Reap	15.0	29.6	25.4	21.5	8.5	100.0	2.5	50.9	15.6	11.6	21.4	100.0	1.4	191
Svay Rieng	14.7	29.0	34.0	15.2	7.1	100.0	2.5	65.2	14.9	16.5	3.5	100.0	1.8	102
Takeo	17.9	25.5	32.0	20.7	3.9	100.0	2.2	52.4	22.1	19.1	5.6	100.0	1.2	170
Otdar Mean Chey	10.9	26.2	33.2	25.0	4.6	100.0	2.6	55.5	22.7	10.4	11.4	100.0	1.4	28
Battambang/ Krong Pailin	15.7	23.4	27.9	24.4	8.6	100.0	3.1	52.9	24.9	19.8	2.4	100.0	1.2	167
Kampot/Krong Kep	15.5	26.0	33.4	18.5	6.6	100.0	2.6	60.9	19.3	15.9	3.2	100.0	1.9	141
Krong Preah Sihanouk/Kaoh Kong	14.9	18.8	31.8	25.1	8.8	100.0	3.1	56.1	15.4	9.8	10.2	100.0	1.7	61
Preah Vihear/ Steung Treng	12.2	17.2	33.5	24.5	12.5	100.0	3.8	53.9	21.1	11.5	13.0	100.0	1.2	59
Mondol Kiri/ Rattanak Kiri	9.2	19.0	35.2	30.0	6.6	100.0	3.2	36.3	14.6	9.9	39.2	100.0	1.2	36
Marriage contract														
Yes	12.4	26.3	29.9	21.8	9.6	100.0	3.1	54.4	19.8	11.3	12.6	100.0	1.6	562
No	12.8	25.1	32.5	22.3	7.3	100.0	2.9	55.2	20.4	17.4	6.1	100.0	1.6	1,947
Total	12.7	25.4	31.9	22.2	7.8	100.0	2.9	55.0	20.3	16.0	7.6	100.0	1.6	2,508

Table 20.2 also shows differences in education between currently married women and their husbands by background characteristics. Men are most likely to be married to women who have fewer years of education than they do. Overall, 55 percent of men have more education than their wife and 20 percent have less education than their wife.

20.2 INTERSPOUSAL COMMUNICATION

The degree of interspousal communication provides insight into the nature of women's current marital relationships. In addition, marriages based on a free flow of communication are likely to be more conducive to the promotion and adoption of several of the demographic and health behaviors and outcomes of interest. Table 20.3 shows the percentages of women who said that they communicated often with their spouse on specific topics.

Table 20.3 Spousal communication

Percent of women currently married by whether they talk often with their spouse about selected topics, by background and marital characteristics, Cambodia 2005

Background and marital characteristic	Percentage who talk with spouse often about:						Number of currently married women
	Things that happen at work/farm	Things that happen at home	What to spend money on	Things that happen in community	All of the four topics	None of the topics	
Age							
15-19	19.1	21.5	31.5	1.1	0.0	58.5	93
20-29	22.1	29.0	36.1	5.5	3.3	56.4	819
30-39	22.6	27.9	34.8	4.7	2.8	57.7	882
40-49	20.9	34.5	37.8	6.3	4.5	52.2	715
Education							
No education	16.6	26.8	37.7	4.9	2.3	56.6	568
Primary	21.6	29.7	35.6	5.2	3.4	55.8	1,487
Secondary or more	29.2	34.4	34.9	5.9	4.5	54.5	453
Wife's education compared with husband's education							
Husband better educated	21.6	30.3	38.9	5.0	4.0	54.6	951
Wife better educated	22.8	31.3	33.1	5.6	3.1	57.0	1,146
Both have equal education	27.0	30.4	37.9	6.3	4.9	50.2	193
Neither educated	14.6	21.2	34.6	4.5	0.6	61.0	190
Husband's age minus wife's age							
Wife older by 2+ years	21.8	29.7	38.1	5.3	3.2	53.5	318
About the same age	20.6	28.4	33.8	4.9	2.9	57.4	637
2-4 years	23.2	30.8	35.7	5.2	3.7	56.5	801
5-9 years	21.8	31.4	36.8	5.4	3.0	53.9	557
10+ years	21.0	27.3	37.6	6.6	4.8	56.4	195
Marriage contract							
Yes	17.2	25.1	31.7	3.3	1.1	57.7	562
No	23.2	31.3	37.1	5.9	4.0	55.2	1,947
Length of marriage							
<5 years	19.7	24.7	35.2	3.7	2.7	57.4	469
5-10 years	22.5	28.9	33.9	5.0	2.5	57.5	548
10 years or more	22.6	31.4	36.4	5.9	3.9	55.1	1,297
Married more than once	20.3	35.5	40.1	5.7	3.9	51.5	195
Total	21.8	29.9	35.9	5.3	3.4	55.8	2,508

Few currently married women (3 percent) talk often with their husband about all of the listed topics, while 36 percent talk often with their husband about what money should be spent on, 30 percent talk often about things that happen at home, and 22 percent talk often about things that happen at work or on the farm. Overall, 56 percent of currently married women say that they do not often talk to their husband about any of the four topics. Overall, the most striking feature of these data is the limited amount of communication between husbands and wives on these selected topics in all subgroups of the population.

20.3 DECISIONMAKING WITHIN HOUSEHOLDS

To assess women's role in household decisionmaking, the CDHS 2005 asked women who in their family usually has the final say on six different types of decisions: visits to family, friends, or relatives; making household purchases for daily needs; making large household purchases; whether the respondent should work to earn money; whether to use contraception; and the respondent's own health care. In addition, women who had one or more living children were also asked who in their household usually had the final say on decisions about children's schooling, what to do if the child falls sick, and whether to have another child.

Table 20.4 shows that currently married women almost always have the final say, alone or jointly, in all of the listed decisions. Almost all currently married women have a say, alone or jointly, in final decisionmaking about visits to family or relatives (93 percent), daily household purchases (95 percent), and the woman's own health care (97 percent). Few women who are not currently married have a say in household decisionmaking, with the exception of the woman's own health care (81 percent).

Table 20.4 Household decisionmaking

Percent distribution of currently married women and of women who are not married by the person who has the final say in specific household decisions, according to type of decision, Cambodia 2005

Household decision	Respondent only	Jointly with husband	Jointly with someone else	Husband only	Someone else only	Decision not made/ not applicable	Missing	Total	Number of women
CURRENTLY MARRIED WOMEN									
All women									
Visits to family or relatives	29.4	63.1	0.8	3.7	0.6	2.3	0.1	100.0	2,508
Daily household purchases	78.6	14.5	2.1	1.2	3.2	0.4	0.1	100.0	2,508
Large household purchases	16.4	62.9	1.8	11.1	3.4	4.1	0.3	100.0	2,508
Whether she should be employed	18.4	53.5	1.4	21.1	1.6	3.9	0.1	100.0	2,508
Own health care	60.6	35.0	0.9	3.2	0.2	0.0	0.1	100.0	2,508
Whether or not to use contraception	16.1	57.4	0.5	2.2	0.0	23.7	0.1	100.0	2,508
Women with one or more living children									
Child's schooling	6.9	76.2	0.3	2.6	0.1	13.8	0.1	100.0	2,332
What to do if child sick	20.8	75.3	0.8	2.4	0.2	0.4	0.1	100.0	2,332
Have another child	11.0	76.4	0.3	4.6	0.2	7.5	0.1	100.0	2,332
UNMARRIED WOMEN									
All women									
Visits to family or relatives	37.5	0.9	23.3	0.1	26.6	11.4	0.2	100.0	1,693
Daily household purchases	25.4	0.4	12.4	0.0	46.3	15.4	0.1	100.0	1,693
Large household purchases	17.1	0.8	8.8	0.3	46.7	26.2	0.1	100.0	1,693
Whether she should be employed	14.8	0.9	1.6	0.1	1.6	0.2	80.8	100.0	1,693
Own health care	54.1	0.7	26.1	0.0	15.6	3.5	0.1	100.0	1,693
Whether or not to use contraception	7.3	1.3	0.3	0.0	0.0	10.3	80.8	100.0	1,693
Women with one or more living children									
Child's schooling	81.4	2.6	5.9	2.8	0.0	7.2	0.2	100.0	280
What to do if child sick	85.4	3.6	7.2	1.5	1.8	0.3	0.2	100.0	280
Have another child	53.3	10.5	1.6	0.3	0.0	34.2	0.2	100.0	280

Table 20.5 shows women's participation in decisionmaking according to background characteristics. Almost all women have a say, either alone or jointly, in their own health care. Slightly less than one-third of women (31 percent) have a say in all six of the decisions listed, while 6 percent have a say in none of the decisions listed. Among women with children, almost all have a say in what to do if their child falls sick (97 percent) and a high percentage have a say in their child's schooling (84 percent) and whether or not to have another child (85 percent).

Table 20.5 Women's participation in household decisionmaking

Percentage of women who say that they alone or jointly have the final say in specific decisions, according to background characteristics, Cambodia 2005

	All women									Women with children					
	Percentage who alone or jointly have final say in decisions about:									Percentage who alone or jointly have final say in decisions about:					
Background characteristic	Visits to family, relatives, friends	Making daily pur-chases	Making large pur-chases	Whether to earn money	Own health care	Use contra-ception	All 6 decisions	None of the 6 decisions	Number of women	Child's school-ing	What to do if child sick	Have another child	All 9 decisions	None of the 9 decisions	Number of women with children
Age															
15-19	49.5	22.9	11.3	7.0	73.0	6.9	3.0	20.2	925	44.0	91.9	83.3	19.8	0.5	49
20-29	82.9	74.2	54.7	48.0	92.9	50.0	29.1	4.0	1,287	63.5	96.2	89.5	33.5	0.4	780
30-39	91.3	92.1	80.8	67.5	95.7	70.8	45.1	0.9	1,065	93.0	97.1	85.8	44.5	0.2	949
40-49	96.3	96.0	88.3	79.1	97.1	58.9	45.0	0.4	924	95.6	97.5	80.9	44.7	0.3	834
Marital status															
Never-married	54.3	26.9	14.5	0.0	76.6	0.0	0.0	17.6	1,368	*	*	*	*	*	1
Married	93.3	95.2	81.1	73.3	96.5	74.0	46.8	0.3	2,508	83.5	96.9	87.7	41.2	0.2	2,332
Divorced or separated	92.9	82.7	73.2	86.8	98.6	45.9	32.5	0.6	172	87.9	97.4	64.9	32.1	0.7	145
Widowed	92.8	89.3	83.2	93.5	98.4	46.4	44.5	0.9	153	92.3	95.2	66.1	44.5	1.0	134
Number of living children															
0	59.5	34.3	22.0	10.3	79.3	6.5	3.6	15.3	1,589	na	na	na	na	na	na
1-2	92.1	92.8	77.7	72.0	96.4	70.6	43.0	0.4	1,178	70.8	96.2	87.1	33.7	0.4	1,178
3-4	94.9	97.2	83.8	77.9	97.8	76.1	52.8	0.2	858	94.8	98.3	84.7	47.8	0.2	858
5+	94.1	97.5	87.1	78.5	95.9	72.5	48.7	0.3	576	95.4	95.9	82.4	44.9	0.1	576
Residence															
Urban	84.7	71.5	54.0	45.1	91.0	50.0	32.1	5.4	752	86.6	96.4	88.2	49.2	0.4	407
Rural	79.7	72.4	60.3	52.0	90.0	47.2	30.6	6.1	3,449	83.7	96.9	84.7	39.3	0.3	2,205
Province															
Banteay Mean Chey	87.2	82.4	52.2	38.4	93.2	57.4	23.8	3.4	156	71.8	96.4	86.9	18.9	0.0	114
Kampong Cham	80.3	75.2	59.2	47.8	93.3	47.4	30.1	2.4	557	81.0	96.3	87.4	42.2	0.4	338
Kampong Chhnang	73.0	78.0	73.4	47.5	89.5	43.1	28.1	7.3	140	86.2	98.1	85.2	35.9	0.0	91
Kampong Speu	67.2	67.1	50.9	34.7	94.4	46.6	12.6	3.0	216	79.5	89.3	63.0	9.6	0.0	143
Kampong Thom	73.2	68.3	65.4	59.9	75.7	60.7	48.5	17.6	197	94.5	97.8	89.7	64.2	0.0	126
Kandal	84.5	67.8	59.1	56.8	93.1	48.8	38.2	5.1	409	92.3	98.5	97.1	55.4	0.0	246
Kratie	70.5	68.5	56.5	56.7	69.8	46.7	25.4	15.6	76	80.9	93.0	79.7	29.7	0.0	51
Phnom Penh	96.0	75.4	53.9	44.4	97.4	52.8	35.8	0.8	480	90.3	99.4	91.2	60.9	0.0	247
Prey Veng	79.1	74.9	62.1	51.6	88.2	47.7	26.2	6.6	331	81.7	97.8	80.6	30.3	0.0	215
Pursat	97.7	89.9	92.5	57.3	96.5	58.7	52.8	1.1	115	98.8	100.0	98.8	80.7	0.0	67
Siem Reap	76.8	69.2	50.9	53.5	92.7	28.4	18.1	6.0	327	75.4	98.1	84.0	24.9	0.0	195
Svay Rieng	79.1	70.1	62.3	57.9	83.0	37.4	25.5	6.3	153	89.2	91.1	92.6	31.9	0.0	104
Takeo	84.7	73.1	67.8	58.3	98.9	47.8	34.4	0.6	260	89.7	99.3	72.0	43.3	0.0	178
Otdar Mean Chey	76.5	73.2	66.6	54.8	77.5	55.8	37.2	21.3	48	99.9	100.0	94.6	52.3	0.0	33
Battambang/Krong Pailin	68.7	65.1	53.8	51.7	77.1	44.3	30.9	18.4	287	70.4	95.2	81.2	32.8	1.5	166
Kampot/Krong Kep	80.0	60.6	54.5	46.9	87.8	52.4	33.5	6.2	228	89.3	99.3	92.9	51.6	0.7	139
Krong Preah Sihanouk/ Kaoh Kong	78.3	81.7	69.6	60.6	90.0	67.4	49.2	6.9	91	85.0	97.1	96.9	59.0	0.6	64
Preah Vihear/ Steung Treng	73.2	78.7	51.1	54.0	96.3	35.1	14.5	1.6	83	70.1	95.4	52.6	8.6	0.0	61
Mondol Kiri/Rattanak Kiri	79.4	68.2	49.3	52.6	70.4	39.6	19.1	11.9	48	79.0	86.4	88.6	23.5	6.5	35
Education															
No education	86.9	86.7	71.4	63.0	93.5	49.5	32.8	2.6	801	81.8	95.9	82.3	34.1	0.4	616
Primary	81.4	74.4	61.8	53.7	91.2	51.5	32.7	5.7	2,322	84.0	97.3	84.9	41.1	0.2	1,547
Secondary or more	74.2	56.8	44.2	35.2	85.5	38.4	25.5	9.1	1,079	87.8	96.3	90.5	49.2	0.2	449
Current employment															
Employed for cash	85.0	76.3	64.2	61.1	93.7	51.7	37.7	3.9	1,720	86.2	96.7	85.6	48.1	0.4	1,109
Employed not for cash	82.8	74.3	63.7	51.7	90.4	45.8	31.4	5.2	983	88.2	97.7	85.7	42.6	0.1	628
Not employed	74.2	66.2	50.4	38.3	86.0	44.4	22.7	8.9	1,499	78.6	96.3	84.6	30.3	0.2	875
Total	80.6	72.2	59.2	50.7	90.2	47.7	30.9	6.0	4,201	84.1	96.8	85.3	40.8	0.3	2,612

na = Not applicable
Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

20.4 ATTITUDES TOWARD GENDER ROLES

An important aspect of women's status and empowerment is the belief in the ideal of gender equality in roles and rights in society, as well as in the home. The CDHS 2005 explores women's acceptance of unequal gender roles by asking three different sets of questions related to gender roles. The first set seeks to determine women's agreement or disagreement with different statements about gender roles in the household and about education for male and female children. The second set of questions asks women about their attitudes toward wife beating. Attitudes that see the beating of wives by husbands as justified are indicative of women's lower status both absolutely and relative to men. Although such attitudes do not necessarily signify approval of men beating their wives, they do signify women's acceptance of norms that give men the right, in this case, to discipline women with force. The third set of questions explores the issue of sexual rights of wives. Beliefs about whether and when a woman can refuse sex to her husband reflect issues of gender equity with regard to sexual rights and bodily integrity. Besides yielding an important measure of empowerment, the information about women's attitudes toward sexual rights will be useful for improving and monitoring reproductive health programs that depend on women's willingness and ability to control their own sexual lives.

Gender Roles in the Household

The CDHS 2005 explored women's beliefs about gender-egalitarian roles for husbands and wives in the household by eliciting information on women's agreement or disagreement with the following statements:

1. The important decisions in the family should be made by the men of the family.
2. If the wife is working outside the home, then the husband should help her with household chores.
3. A married woman should not be allowed to work outside the home even if she wants to.
4. The wife has a right to express her opinion if she disagrees with what her husband is telling her.
5. It is acceptable for a man to have sex outside the marriage.
6. A wife should tolerate being beaten by her husband in order to keep the family together.
7. It is better to educate a son than a daughter.

Disagreement with statements 1, 3, and 5-7 and agreement with statements 2 and 4 are considered to be the responses most consistent with a greater acceptance of egalitarian gender roles. Table 20.6 shows the percentage of women who gave responses consistent with gender-egalitarian roles by background characteristics. Note that to present the data consistently (i.e., in terms of disagreement only), statements 2 and 4 are listed in the table in terms of their converse.

The percentage of women giving gender-egalitarian responses varies by statement. Fifty-five percent of women disagree with the statement that it is better to educate a son than a daughter. Eighty-nine percent of women disagree with the statement that it is acceptable for a man to have sex outside the marriage. Although 91 percent of women agree that a wife has a right to express her opinion even if she disagrees with her husband, only 47 percent disagree with the statement that men should be making the important decisions in the household. About 42 percent of women feel that married women should not be allowed to work outside the home.

Table 20.6 Gender-related attitudes

Percentage of women who disagree (reflecting gender-egalitarian ideas) with specific statements about gender-based roles, by background characteristics, Cambodia 2005

Background characteristic	Percent of women who disagree with the statement: Important decisions should be made by men	Husband should not help with household chores	Married women should not be allowed to work	Wife does not have the right to express her opinion	Acceptable for a man to have extramarital sex	Wife should tolerate beatings to keep family together	Better to educate sons than daughters	Number of women	Mean number of statements with which there is disagreement
Age									
15-19	59.7	94.4	61.0	85.2	85.8	89.4	65.3	925	5.4
20-29	51.7	96.9	61.1	89.1	89.7	89.4	56.5	1,287	5.3
30-39	49.5	97.9	54.3	88.9	90.6	89.2	50.3	1,065	5.2
40-49	51.7	96.6	56.3	88.4	89.4	90.1	49.2	924	5.2
Marital status									
Never-married	59.0	94.5	62.9	86.5	85.0	89.1	63.3	1,368	5.4
Married	48.5	97.7	55.9	88.8	91.5	89.5	50.8	2,508	5.2
Divorced or separated	63.2	95.0	61.7	90.2	92.1	94.8	54.9	172	5.5
Widowed	60.0	98.2	52.3	85.9	79.2	87.9	56.8	153	5.2
Number of living children									
0	59.0	94.7	62.8	86.6	85.6	89.7	62.3	1,589	5.4
1-2	48.0	98.1	57.3	89.2	92.4	90.5	53.0	1,178	5.3
3-4	51.5	98.2	54.1	89.8	89.9	87.9	50.7	858	5.2
5+	48.5	95.9	54.3	86.8	89.9	89.7	47.3	576	5.1
Residence									
Urban	56.7	96.2	70.7	86.9	86.0	90.7	58.9	752	5.5
Rural	52.1	96.6	55.6	88.2	89.6	89.3	54.5	3,449	5.3
Province									
Banteay Mean Chey	21.9	94.2	60.7	84.1	94.1	94.0	36.2	156	4.9
Kampong Cham	55.6	95.5	36.7	87.7	64.1	83.7	54.1	557	4.8
Kampong Chhnang	76.5	98.8	73.5	97.4	94.9	89.3	61.5	140	5.9
Kampong Speu	59.5	98.0	64.7	86.3	90.4	78.1	54.3	216	5.3
Kampong Thom	83.6	96.3	42.5	89.1	96.1	95.2	57.2	197	5.6
Kandal	51.1	99.0	70.9	99.6	95.3	97.6	54.7	409	5.7
Kratie	51.5	93.2	58.7	75.5	95.2	91.4	55.0	76	5.2
Phnom Penh	53.1	99.7	84.5	91.6	90.5	97.7	55.9	480	5.7
Prey Veng	51.0	95.4	66.5	79.9	95.7	88.3	73.7	331	5.5
Pursat	78.3	86.7	58.1	79.1	93.3	92.5	64.1	115	5.5
Siem Reap	40.7	97.0	55.3	90.1	91.8	86.5	53.3	327	5.1
Svay Rieng	26.6	98.4	58.5	93.1	96.6	77.5	55.9	153	5.1
Takeo	58.9	97.2	64.6	94.4	95.1	95.2	48.4	260	5.5
Otdar Mean Chey	99.2	99.3	99.1	1.3	100.0	99.6	99.9	48	6.0
Battambang/Krong Pailin	52.0	99.4	37.6	89.6	93.5	92.0	61.3	287	5.3
Kampot/Krong Kep	50.0	97.1	53.3	91.0	92.8	87.7	46.4	228	5.2
Krong Preah Sihanouk/ Kaoh Kong	45.5	78.4	37.2	72.7	57.5	61.4	42.4	91	4.0
Preah Vihear/ Steung Treng	28.1	94.6	45.0	84.5	97.1	92.7	24.4	83	4.7
Mondol Kiri/Rattanak Kiri	31.5	91.3	22.3	76.2	83.7	79.3	45.8	48	4.3
Education									
No education	47.6	94.9	47.2	84.1	88.2	87.1	47.5	801	5.0
Primary	49.3	96.9	55.1	87.3	89.4	88.3	51.1	2,322	5.2
Secondary or more	64.8	97.0	73.4	92.4	88.6	94.1	70.0	1,079	5.8
Current employment									
Employed for cash	51.8	96.9	61.3	91.1	87.3	90.3	53.2	1,720	5.3
Employed not for cash	52.5	96.2	54.8	86.8	90.4	89.6	54.1	983	5.2
Not employed	54.5	96.4	57.2	85.2	89.9	88.7	58.4	1,499	5.3
Total	52.9	96.5	58.3	88.0	89.0	89.5	55.3	4,201	5.3

Women's Agreement with Reasons for Wife Beating

To assess women's degree of acceptance of wife beating, the CDHS 2005 presented the following scenario to all women: "Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations. . . ." The four situations presented to women for their opinion were if she argues with him,

if she goes out without telling him, if she neglects the children, and if she refuses to have sex with him. The first four columns in Table 20.7 show how acceptance of wife beating varies for each reason. The fifth column gives the percentages of women who feel that a husband is justified in beating his wife for at least one of the given reasons.

Table 20.7 Women's agreement with reasons justifying a husband beating his wife

Percentage of women who agree with specific reasons justifying a husband beating his wife, by background characteristics, Cambodia 2005

Background characteristic	Percentage who agree with specific reasons: Argues with him	Goes out without telling him	Neglects the children	Refuses sexual relations	Percentage who agree with at least one reason	Percentage who agree with none of the reasons	Number of women
Age							
15-19	23.8	27.7	37.4	9.5	48.9	51.1	925
20-29	25.2	33.7	46.4	12.0	54.8	45.2	1,287
30-39	28.2	37.7	45.5	16.2	57.1	42.9	1,065
40-49	30.2	39.9	50.1	15.6	59.8	40.2	924
Marital status							
Never-married	22.6	28.3	37.5	9.5	48.4	51.6	1,368
Currently married	28.3	38.3	48.8	15.4	58.6	41.4	2,508
Married or in union once	28.4	38.8	49.0	15.5	58.8	41.2	2,314
< 5 years	26.9	39.7	51.3	12.2	59.7	40.3	469
5 or more years	28.8	38.6	48.4	16.4	58.5	41.5	1,845
Married more than once	26.7	32.1	46.1	13.9	56.4	43.6	195
Divorced or separated	25.3	26.6	43.7	7.0	50.6	49.4	172
Widowed	40.7	44.2	51.9	19.7	65.3	34.7	153
Number of living children							
0	22.8	28.5	39.0	9.7	49.5	50.5	1,589
1-2	29.4	37.6	47.4	12.6	57.1	42.9	1,178
3-4	29.1	41.0	49.7	16.4	59.1	40.9	858
5+	28.7	37.0	49.6	19.8	60.9	39.1	576
Residence							
Urban	23.9	34.4	44.6	8.0	52.0	48.0	752
Rural	27.4	34.9	45.1	14.4	55.9	44.1	3,449
Province							
Banteay Mean Chey	35.6	55.9	63.5	8.6	68.7	31.3	156
Kampong Cham	21.6	26.2	34.4	20.4	44.0	56.0	557
Kampong Chhnang	36.1	35.6	41.2	19.3	47.7	52.3	140
Kampong Speu	27.9	40.4	45.1	9.6	59.9	40.1	216
Kampong Thom	4.7	10.8	14.2	4.8	18.7	81.3	197
Kandal	31.4	39.3	49.6	18.0	58.8	41.2	409
Kratie	20.0	42.2	53.6	10.4	61.1	38.9	76
Phnom Penh	24.6	30.3	40.5	7.0	47.6	52.4	480
Prey Veng	33.4	35.6	41.4	18.8	59.2	40.8	331
Pursat	31.7	63.1	68.4	29.5	81.5	18.5	115
Siem Reap	28.4	34.7	68.0	16.8	74.1	25.9	327
Svay Rieng	52.3	69.8	72.3	10.2	85.1	14.9	153
Takeo	9.3	22.6	33.9	2.2	40.7	59.3	260
Otdar Mean Chey	0.4	0.3	47.8	0.1	47.9	52.1	48
Battambang/Krong Pailin	31.2	34.2	43.0	11.9	57.1	42.9	287
Kampot/Krong Kep	34.3	35.9	43.6	12.2	60.9	39.1	228
Krong Preah Sihanouk/ Kaoh Kong	10.8	25.4	27.5	4.1	38.5	61.5	91
Preah Vihear/Steung Treng	34.4	52.7	63.8	11.9	74.9	25.1	83
Mondol Kiri/Rattanak Kiri	35.1	32.3	38.9	21.4	56.9	43.1	48
Education							
No education	29.3	38.5	49.7	14.4	60.7	39.3	801
Primary	28.4	36.7	47.0	15.5	57.6	42.4	2,322
Secondary or more	21.2	27.8	37.3	7.7	45.8	54.2	1,079
Current employment							
Employed for cash	25.6	34.8	44.8	12.2	54.5	45.5	1,720
Employed not for cash	29.1	37.1	47.1	14.9	58.0	42.0	983
Not employed	26.5	33.2	43.8	13.5	54.1	45.9	1,499
Total	26.8	34.8	45.0	13.3	55.2	44.8	4,201

Half of women (55 percent) agree with at least one reason to justify a husband beating his wife. Women are least likely to consider that a husband is justified in beating his wife if she refuses to have sexual relations with him. Women are most likely to consider that a husband is justified in beating his wife if she neglects the children (45 percent). Agreement with any of the reasons justifying wife beating tends to increases with the number of living children. In every subgroup of population women are most likely to agree that a husband is justified in beating his wife if she neglects the children.

Women's Agreement with Reasons for Refusing Sexual Relations

The extent of control women have over when and with whom they have sex has important implications for demographic and health outcomes. To measure women's agreement with a woman's right to refuse her husband sex, the CDHS 2005 asked respondents whether a wife is justified in refusing to have sex with her husband under four circumstances: she is tired or not in the mood, she has recently given birth, she knows her husband has sex with other women, and she knows her husband has a sexually transmitted infection (STI) or AIDS. These four circumstances for which women's opinions are sought were chosen because they are effective in combining women's rights and women's health issues. Table 20.8 shows the percentage of women who say that women are justified in refusing sex to their husband for specific reasons by background characteristics. Note that, unlike in the case of the previous indicator of empowerment, this indicator is positively related to empowerment: the more reasons women agree with, the higher is their "empowerment" in terms of their belief in women's sexual rights.

The majority (75 percent) of women age 15-49 in Cambodia agree that women can refuse sex to their husband for at least one of the given reasons. Agreement with all four reasons is lowest among the youngest women, among those who have never been married, and among those who have never had children; otherwise, there is minimal variation by background characteristics other than region.

Table 20.8 Women's agreement with reasons for refusing to have sexual relations with husband

Percentage of women who agree with specific reasons justifying a wife refusing to have sexual relations with her husband, by background characteristics, Cambodia 2005

Background characteristic	Percentage who agree with specific reasons: Tired, not in mood	Gave birth recently	Knows husband has sexual relations with other women	Knows husband has STI	Percentage who agree with at least one reason	Percentage who agree with none of the reasons	Number of women
Age							
15-19	77.6	80.4	78.5	80.5	67.5	12.5	925
20-29	87.7	89.0	83.4	86.0	77.1	7.2	1,287
30-39	86.5	89.7	85.4	85.3	76.5	6.9	1,065
40-49	86.3	90.1	85.5	86.8	76.0	6.5	924
Marital status							
Never-married	79.2	81.2	78.8	80.4	68.7	12.3	1,368
Currently married	87.5	90.6	85.1	87.1	77.1	6.3	2,508
Married or in union once	87.7	90.8	85.3	87.4	77.1	6.0	2,314
< 5 years	89.6	90.2	84.5	86.6	77.5	6.7	469
5 or more years	87.2	90.9	85.5	87.6	77.0	5.9	1,845
Married more than once	84.8	88.7	83.0	82.8	76.4	9.2	195
Divorced or separated	88.2	93.5	88.1	87.0	82.6	5.8	172
Widowed	89.4	87.1	88.1	84.3	77.6	4.6	153
Number of living children							
0	80.6	82.7	80.0	81.4	69.8	11.0	1,589
1-2	88.5	90.7	85.3	86.4	78.4	6.7	1,178
3-4	88.4	92.2	86.6	87.3	78.6	5.3	858
5+	84.0	87.5	83.4	87.1	74.2	7.5	576
Residence							
Urban	88.6	89.7	82.9	85.2	75.8	5.7	752
Rural	84.0	87.1	83.4	84.7	74.3	8.7	3,449
Province							
Banteay Mean Chey	90.2	93.3	86.8	88.5	76.9	3.4	156
Kampong Cham	83.8	83.9	83.4	85.9	76.4	9.6	557
Kampong Chhnang	96.9	97.6	97.7	96.5	94.6	1.8	140
Kampong Speu	81.1	83.3	61.5	65.9	50.2	10.0	216
Kampong Thom	85.8	87.7	84.8	87.0	82.2	11.4	197
Kandal	67.1	86.0	87.4	87.5	62.6	7.9	409
Kratie	85.9	90.9	86.2	89.9	75.4	3.9	76
Phnom Penh	99.0	99.0	88.6	91.5	86.2	1.0	480
Prey Veng	84.0	83.1	81.3	79.9	73.4	12.2	331
Pursat	66.8	67.9	70.9	70.9	63.9	25.0	115
Siem Reap	83.9	86.2	74.0	78.2	66.8	12.6	327
Svay Rieng	98.2	98.9	97.0	99.5	95.2	0.0	153
Takeo	93.1	92.6	89.9	86.4	85.0	6.9	260
Otdar Mean Chey	99.7	99.7	99.9	99.8	99.7	0.0	48
Battambang/Krong Pailin	98.2	98.0	93.4	91.9	88.1	1.1	287
Kampot/Krong Kep	74.0	75.4	81.3	82.9	65.5	11.9	228
Krong Preah Sihanouk/ Kaoh Kong	52.7	55.7	57.1	67.6	40.3	19.9	91
Preah Vihear/Steung Treng	84.9	90.0	74.0	77.2	63.5	7.1	83
Mondol Kiri/Rattanak Kiri	53.0	55.3	51.6	57.3	37.7	29.7	48
Education							
No education	82.3	84.7	79.2	82.4	70.8	9.8	801
Primary	84.5	87.5	84.2	85.0	74.8	7.8	2,322
Secondary or more	87.5	89.7	84.3	86.1	76.9	7.5	1,079
Current employment							
Employed for cash	85.8	89.5	84.9	87.2	75.3	5.9	1,720
Employed not for cash	84.2	86.0	82.6	84.1	75.5	9.9	983
Not employed	84.2	86.2	81.8	82.5	73.2	9.6	1,499
Total	84.9	87.5	83.3	84.8	74.6	8.1	4,201

20.5 SUPPORT FROM BIRTH FAMILY

The knowledge that their birth family is close by and willing to provide support if needed can be an important source of empowerment for women. To assess women's perception of support from their family, the CDHS 2005 asked women whether any members of the birth family were living close by, and whether women had anyone in the family who could a) give them shelter for a few nights if they needed it and b) give them financial support if needed. Table 20.9 shows the percentages of women who have support from their family measured in terms of these three indicators for all women and for currently married, widowed, and separated women by coresidence with in-laws.

Table 20.9 Birth family interaction and support

Percentage of women who have a birth family member living close by and percentage with different aspects of birth family support among all women and among married, separated, and widowed women by coresidence with in-laws, Cambodia 2005

Residence and support of birth family	All women	Married, separated, widowed: Living with in-laws	Married, separated, widowed: Not living with in-laws
Has birth family-member living close by	53.5	80.0	79.4
Support from birth family			
Has someone who can give shelter	58.7	91.8	86.4
Has someone who can give financial support	44.8	64.4	66.5
Number	4,201	257	2,468

More than half (54 percent) of all women in Cambodia live close to one or more members of their birth family, over half (59 percent) have one or more family members who would give them shelter if needed, and less than half (45 percent) have someone who can give them financial support if they needed it. These proportions are all considerably higher for women who are currently married, separated, or widowed and do not differ much by whether these ever-married women are residing with in-laws.

20.6 FINANCIAL EMPOWERMENT

Direct access to financial resources is likely to be an important cause of and contributor to women's status and empowerment. However, direct access to financial resources can take many different forms, including own earnings, access and use of credit, control over household income, or asset ownership and control. In this section, several different indicators of financial empowerment other than earnings control (which has been discussed earlier) are considered. Specifically, ownership of assets, familiarity with the credit schemes that give loans to women, and control of income for specific types of expenditures are examined.

Table 20.10 shows the proportion of all women who own, alone or jointly with someone else, each of six different types of assets: land; current house or dwelling; some other house, apartment, or dwelling; jewelry or gems; livestock; and car or motorbike. Further, for women who own an asset alone, the table also shows the proportion who can sell the asset without permission from someone else. Although having the right to even co-own valuable assets can be an important indicator of women's status in a given society, for assets to be a source of financial empowerment for women, it is important that women know that they can sell the asset if they ever need to without first having to ask someone else for permission.

About two-thirds of Cambodian women are owners or co-owners of the dwelling they reside in (69 percent) and a similar proportion own some land (60 percent). In addition, about half are owners or co-owners of livestock and jewelry or gems, and about one quarter (27 percent) of a car or motorbike. Few own alternative dwellings, houses, or apartments. The majority of women who own an asset alone can sell the asset without permission. The only asset that women are somewhat less likely to be able to sell without permission, even if they own it alone, is land. Even so, 65 percent of women who own land alone can sell it without permission.

Table 20.10 Ownership of assets

Percentage of women who own specific types of assets alone or jointly, and among those who own the asset alone, percentage who can sell the asset without permission, by type of asset, Cambodia 2005

Asset	Percentage of women who own asset: Alone	Jointly	Total	Number of women	Of those who own asset alone, percentage who can sell without permission	Number of women who own asset alone
Land	13.6	46.5	60.1	4,201	64.7	570
Dwelling living in	9.3	60.0	69.3	4,201	73.3	393
Other dwelling	0.3	4.1	4.3	4,201	*	11
Jewelry or gems	20.6	30.1	50.7	4,201	82.1	867
Livestock	6.6	43.3	49.9	4,201	81.7	276
Car or motorbike	3.9	23.2	27.1	4,201	89.7	165

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

A collection of different summary indicators of women's financial autonomy, including asset ownership, are presented together in Table 20.11. The specific indicators included are the following:

a) Two indicators of asset ownership: the percentage of women who own alone or jointly at least one of the six assets in Table 20.10 and the percentage of women who own alone and can sell at least one of these assets

b) Two indicators of exposure to credit programs: the percentage of women who know of any programs in their area of residence that give loans to women to start or expand a business of their own and the percentage of women who have ever applied for or taken such a loan

c) Two indicators of women's control over income for specific sets of expenditure items: percentage of women who control the money needed to buy one or both of the following household items: perishable foods and staple foods, and the percentage of women who control the money needed to buy one or more of the following personal items for themselves: clothes, any kind of medicinal care, or toiletries such as lipstick and perfume.

Given the relatively high ownership of assets by women shown in Table 20.10, it is not surprising that 82 percent of women in Cambodia own or co-own at least one of the six assets listed earlier. However, only one-quarter of women own at least one asset alone that they can sell without permission. Exposure to and use of any credit programs for women is limited. While 54 percent of women know of any credit programs for women, only 15 percent have ever taken a loan to start or expand a business. An examination of women's control over household expenditure reveals that 63 percent of women control the money required for household items, namely, perishable or staple food items, and 66 percent control money for one or more personal items.

Table 20.11 Economic autonomy

Percentage of women who own assets, are exposed to modern financial institutions, and have control over income, by background characteristics, Cambodia 2005

Background characteristic	Asset ownership: Owns at least one asset alone or jointly	Asset ownership: Owns at least one asset alone and can sell it without permission	Exposure to modern financial institutions: Knows about credit programs	Exposure to modern financial institutions: Ever applied for/taken a loan	Control over income: Controls money for at least one household item	Control over income: Controls money for at least one personal item	Total
Age							
15-19	49.1	11.6	44.2	4.4	7.7	9.8	925
20-29	83.9	28.3	53.4	11.6	61.5	66.5	1,287
30-39	95.6	22.7	60.6	23.6	87.6	89.7	1,065
40-49	96.5	31.1	58.3	22.0	92.0	93.0	924
Marital status							
Never-married	54.4	18.1	46.4	5.3	0.0	0.0	1,368
Married	96.1	22.3	59.2	20.2	94.8	97.9	2,508
Divorced or separated	87.6	56.3	52.5	14.5	75.6	93.6	172
Widowed	90.3	62.7	47.2	25.1	90.5	95.7	153
Number of living children							
0	59.2	20.0	46.6	5.6	10.9	13.3	1,589
1-2	94.7	31.5	56.5	15.8	91.6	96.6	1,178
3-4	95.7	23.3	60.9	24.9	96.4	98.0	858
5+	98.5	19.3	61.0	26.9	98.4	99.3	576
Residence							
Urban	78.4	35.2	35.0	8.9	55.5	58.7	752
Rural	82.7	21.3	58.5	16.7	64.6	67.3	3,449
Province							
Banteay Mean Chey	92.5	36.7	83.3	29.5	74.7	66.9	156
Kampong Cham	86.4	19.3	53.3	12.2	63.1	64.5	557
Kampong Chhnang	85.0	29.0	87.6	23.2	67.9	72.5	140
Kampong Speu	83.1	14.9	65.3	27.3	62.9	69.2	216
Kampong Thom	85.1	27.1	63.5	20.1	66.9	67.5	197
Kandal	84.6	36.6	62.7	13.1	58.7	61.1	409
Kratie	76.9	28.9	29.5	4.1	63.8	70.6	76
Phnom Penh	77.9	48.4	14.2	3.9	55.0	57.2	480
Prey Veng	88.8	8.4	59.4	22.1	66.8	69.5	331
Pursat	87.4	34.3	73.5	24.6	60.1	63.5	115
Siem Reap	74.8	25.8	44.2	11.3	62.4	64.8	327
Svay Rieng	83.8	8.1	76.0	19.4	64.8	71.0	153
Takeo	80.6	15.7	72.7	19.9	69.4	72.5	260
Otdar Mean Chey	99.9	1.2	53.6	7.5	67.4	71.1	48
Battambang/Krong Pailin	71.0	14.9	43.2	10.3	58.8	62.4	287
Kampot/Krong Kep	73.1	10.3	69.9	19.9	60.1	66.2	228
Krong Preah Sihanouk/ Kaoh Kong	76.6	14.6	62.1	18.1	70.0	71.2	91
Preah Vihear/Steung Treng	82.4	7.5	24.3	8.1	70.3	76.0	83
Mondol Kiri/Rattanak Kiri	85.2	29.8	4.0	4.2	61.6	68.6	48
Education							
No education	88.9	20.6	49.4	17.1	79.0	80.3	801
Primary	83.8	23.1	56.9	18.1	67.0	69.8	2,322
Secondary or more	72.8	27.7	52.4	8.1	42.5	46.2	1,079
Current employment							
Employed for cash	85.5	30.7	53.0	14.4	65.4	68.4	1,720
Employed not for cash	83.8	18.2	59.5	18.8	65.7	67.9	983
Not employed	76.7	19.5	52.4	14.0	58.4	61.3	1,499
Total	82.0	23.8	54.3	15.3	63.0	65.8	4,201

20.7 INVOLVEMENT WITH CIVIL SOCIETY

Involvement in civil society is not only a source of empowerment for women, but it is also a desired outcome of the empowerment of women. To be fully empowered, women must participate as equal partners in the development and conduct of their societies. The CDHS 2005 explored women's involvement in civil society in Cambodia by asking women whether they were members of any kind of association, group, or club that holds regular meetings; whether they vote always, sometimes, or never in local or national elections; and about their knowledge of laws in Cambodia protecting

women's rights and about the problem of trafficking in women. Table 20.12 shows the data on women's organization membership and voting behavior by background characteristics. Women's knowledge about laws protecting women's rights and about trafficking in women is shown by background characteristics in Table 20.13.

Table 20.12 Involvement in civil society

Percentage of women who are members of some organization, and percent distribution of women by voting status in national or local elections, according to background characteristics, Cambodia 2005

Background characteristic	Member of some organization	Voting status: Votes always/ sometimes	Voting status: Never votes	Voting status: Too young	Voting status: Never an election	Voting status: Missing	Total	Number
Age								
15-19	1.7	10.3	34.2	28.5	26.7	0.2	100.0	925
20-29	5.1	87.1	8.8	0.4	3.6	0.1	100.0	1,287
30-39	9.4	98.2	1.5	0.0	0.2	0.1	100.0	1,065
40-49	9.4	98.6	0.8	0.0	0.5	0.2	100.0	924
Marital status								
Never-married	2.6	38.7	24.9	18.6	17.6	0.1	100.0	1,368
Married	8.4	93.4	3.9	0.5	2.0	0.2	100.0	2,508
Divorced or separated	4.8	91.6	5.7	0.9	1.7	0.0	100.0	172
Widowed	9.9	94.5	1.8	0.0	3.7	0.0	100.0	153
Number of living children								
0	2.7	44.2	23.0	16.5	16.2	0.1	100.0	1,589
1-2	6.1	90.1	6.0	0.5	3.1	0.2	100.0	1,178
3-4	9.9	98.0	1.3	0.0	0.5	0.2	100.0	858
5+	11.8	98.6	0.9	0.0	0.3	0.2	100.0	576
Residence								
Urban	5.3	69.1	13.5	7.4	9.8	0.2	100.0	752
Rural	6.6	77.0	10.2	6.2	6.6	0.1	100.0	3,449
Province								
Banteay Mean Chey	28.3	70.5	12.5	5.0	11.4	0.6	100.0	156
Kampong Cham	1.0	78.1	10.5	4.6	6.6	0.2	100.0	557
Kampong Chhnang	2.3	81.4	6.3	9.1	3.2	0.0	100.0	140
Kampong Speu	9.7	81.1	7.3	3.6	7.9	0.0	100.0	216
Kampong Thom	8.0	76.4	4.0	3.1	16.5	0.0	100.0	197
Kandal	4.0	77.0	7.7	11.8	3.4	0.0	100.0	409
Kratie	6.1	72.4	15.9	9.8	1.9	0.0	100.0	76
Phnom Penh	1.2	70.0	13.7	5.5	10.7	0.0	100.0	480
Prey Veng	3.3	82.1	12.0	3.0	3.0	0.0	100.0	331
Pursat	20.9	79.7	12.7	5.4	1.1	1.1	100.0	115
Siem Reap	20.4	68.3	8.6	4.3	18.8	0.0	100.0	327
Svay Rieng	9.8	81.5	1.6	14.4	2.5	0.0	100.0	153
Takeo	5.4	80.6	10.3	4.4	4.7	0.0	100.0	260
Otdar Mean Chey	3.6	81.8	1.5	16.6	0.1	0.0	100.0	48
Battambang/Krong Pailin	3.1	67.3	18.6	13.3	0.4	0.4	100.0	287
Kampot/Krong Kep	0.0	71.1	22.6	1.3	4.6	0.4	100.0	228
Krong Preah Sihanouk/ Kaoh Kong	4.9	75.5	5.2	2.2	16.7	0.4	100.0	91
Preah Vihear/Steung Treng	6.3	77.9	9.0	11.2	1.9	0.0	100.0	83
Mondol Kiri/Rattanak Kiri	2.6	72.5	5.8	5.4	15.8	0.5	100.0	48
Education								
No education	9.3	86.8	6.7	1.7	4.7	0.2	100.0	801
Primary	6.7	79.3	8.5	5.8	6.3	0.2	100.0	2,322
Secondary or more	3.6	59.2	18.6	11.2	10.9	0.1	100.0	1,079
Current employment								
Employed for cash	6.1	82.5	8.5	3.6	5.2	0.2	100.0	1,720
Employed not for cash	8.0	80.4	9.4	4.0	6.1	0.1	100.0	983
Not employed	5.7	64.4	14.3	11.1	10.1	0.1	100.0	1,499
Total	6.4	75.5	10.8	6.4	7.1	0.1	100.0	4,201

Few women (6 percent) in Cambodia are members of any association, club, or organization. The types of organizations and groups that women mention being members of include development committees, religious groups, and social groups (data not shown). Women's participation in civil society by exercising their vote is, by contrast, quite significant: overall, 76 percent of women always or sometimes vote. The percentage of women who do not vote is highest among the youngest women largely because some of them are not old enough to vote or to have voted in the last election. The likelihood that women vote also declines with increasing level of education.

Less than half (42 percent) of the women in Cambodia have heard of any laws that protect women's rights, and 66 percent have heard of trafficking in women (Table 20.13). Regarding knowledge of specific laws protecting the rights of women, women most often mentioned the laws against trafficking in women (25 percent) followed by the equal rights law (23 percent) and laws on marriage and divorce (6 percent). Only 3 percent mentioned knowing about labor laws, and 6 percent mentioned knowing about laws on marriage and divorce. Knowledge of one or more laws increases sharply with education from only 31 percent of women with no education knowing any law to 56 percent for women with secondary or higher education. Knowledge also varies greatly by region. Only 9 percent of women in Preah Vihear and Steung Treng know of any law protecting the rights of women, compared with 99 percent of women in Otdar Mean Chey.

Table 20.13 Knowledge of issues and laws concerning women's rights

Percentage of women who are aware of trafficking of women, and percentage who have heard of specific laws concerning women's rights, Cambodia 2005

Background characteristic	Percentage who are aware of trafficking of women	Percentage who have knowledge of specific laws:						Any laws to protect women's rights	Number of women
		Equal rights	Marriage/ divorce	Labor	Abortion	Trafficking	Other		
Age									
15-19	66.0	21.6	3.5	3.0	0.3	25.9	4.1	41.3	925
20-29	68.6	25.0	6.7	2.3	0.3	24.7	4.0	42.3	1,287
30-39	64.8	22.4	7.5	2.8	0.3	23.3	4.2	39.9	1,065
40-49	63.9	21.9	7.1	2.5	0.6	26.8	3.9	43.0	924
Marital status									
Never married	66.8	23.1	4.0	2.7	0.3	25.3	3.9	40.9	1,368
Married	65.7	23.0	7.3	2.7	0.4	24.7	4.3	41.9	2,508
Divorced or separated	63.5	20.4	9.2	0.4	0.0	20.8	2.9	38.0	172
Widowed	67.2	23.6	6.7	3.2	0.7	34.2	2.4	48.1	153
Number of living children									
0	67.3	23.2	4.5	2.8	0.2	24.9	4.0	41.2	1,589
1-2	67.6	22.9	7.3	2.4	0.4	27.0	3.8	42.8	1,178
3-4	64.5	23.0	8.5	2.4	0.6	24.5	4.5	41.9	858
5+	61.6	22.0	5.9	3.0	0.4	22.5	4.0	39.7	576
Residence									
Urban	76.9	29.4	6.0	1.8	0.7	22.3	3.4	43.5	752
Rural	63.6	21.5	6.4	2.8	0.3	25.7	4.2	41.2	3,449
Province									
Banteay Mean Chey	52.9	11.1	1.0	0.0	0.0	8.7	19.4	36.9	156
Kampong Cham	57.5	11.9	2.4	2.0	0.0	13.4	0.5	23.3	557
Kampong Chhnang	78.5	58.0	13.6	17.2	0.0	31.1	1.8	69.2	140
Kampong Speu	73.5	14.5	0.5	0.7	0.0	10.6	32.1	51.3	216
Kampong Thom	77.5	64.4	31.6	30.4	4.3	67.2	0.9	72.3	197
Kandal	74.4	18.9	7.6	0.3	0.0	63.6	2.4	72.3	409
Kratie	74.5	12.2	1.4	0.0	0.4	7.9	6.9	25.0	76
Phnom Penh	83.1	29.9	3.4	0.0	0.0	12.6	0.7	37.9	480
Prey Veng	67.3	17.4	17.0	0.7	0.0	42.9	1.8	52.2	331
Pursat	31.1	9.9	7.2	0.0	0.0	8.7	0.0	19.1	115
Siem Reap	56.4	25.3	6.2	0.8	1.1	30.7	0.4	42.3	327
Svay Rieng	59.3	23.2	10.0	0.0	0.0	30.1	2.7	41.6	153
Takeo	49.9	9.1	1.1	0.5	0.0	9.8	0.0	18.5	260
Otdar Mean Chey	99.6	89.7	0.0	0.1	0.0	56.6	28.0	98.9	48
Battambang/Krong Pailin	91.2	12.7	3.0	0.7	0.4	17.1	1.6	22.9	287
Kampot/Krong Kep	67.2	37.8	0.9	1.2	0.0	10.0	6.0	51.1	228
Krong Preah Sihanouk/ Kaoh Kong	39.9	26.6	5.1	0.0	2.1	14.5	0.4	28.5	91
Preah Vihear/ Steung Treng	16.6	6.3	0.8	0.3	0.0	1.8	1.9	8.5	83
Mondol Kiri/Rattanak Kiri	26.6	7.8	0.0	0.0	0.0	5.1	0.6	13.5	48
Education									
No education	50.6	16.0	4.6	1.2	0.0	19.5	3.6	31.0	801
Primary	62.4	20.7	6.1	2.9	0.5	23.5	3.7	38.8	2,322
Secondary or more	85.2	32.9	7.9	3.0	0.3	32.6	5.1	55.5	1,079
Current employment									
Employed for cash	70.4	24.3	5.5	2.6	0.4	24.9	4.4	43.6	1,720
Employed not for cash	60.3	20.0	7.0	2.3	0.2	24.7	2.4	38.7	983
Not employed	64.7	23.3	6.7	2.8	0.4	25.6	4.7	41.3	1,499
Total	66.0	22.9	6.3	2.6	0.4	25.1	4.1	41.6	4,201

DOMESTIC VIOLENCE 21

In recent years, there has been increasing concern about violence against women in general, and domestic violence in particular, in both developed and developing countries (United Nations General Assembly, 1991). Not only has domestic violence against women been acknowledged worldwide as a violation of the basic human rights of women, but an increasing amount of research highlights the health burdens, intergenerational effects, and demographic consequences of such violence (e.g., Kishor and Johnson, 2006). In many societies, including Cambodia, women are socialized to accept, tolerate, and even rationalize domestic violence and to remain silent about such experiences (Zimmerman, 1994).

Tolerance and experience of domestic violence are significant barriers to the empowerment of women, with consequences for women's health, their health-seeking behavior, their adoption of a small family norm, and the health of their children. With this in mind, Cambodia's Ministry of Women's Affairs began the work of introducing draft domestic violence legislation in 2001; this legislation was adopted by the National Assembly on October 24, 2005. Women's organizations and other non-governmental organizations are still working to educate citizens about the new domestic violence law, which criminalizes acts of domestic violence, provides for the protection of victims, and allows neighbors or local organizations to intervene when domestic violence is occurring.

The CDHS 2005 included a module of questions that provides extensive information on the experience of domestic violence by women in Cambodia at the hands of husbands and others. Specifically, the module provides information on the prevalence of any violence against ever-married women by husbands or other persons (since age 15). For violence by the current or last husband (for women not currently in union), information is sought on the type of violence (emotional, physical, or sexual) and the timing of the initiation of the violence. In addition, the degree of marital control exercised by the husband, violence during pregnancy, and violence by women against their husband are also measured. For women who have experienced any physical or sexual violence, information is collected on whether and from whom help was sought.

There tends to be a culture of silence around the topic of domestic violence that makes the collection of data on this sensitive topic particularly challenging. Even women who want to speak about their experience with domestic violence may find it difficult because of feelings of shame or fear. The need for establishing a rapport with the respondent, ensuring confidentiality, and ensuring privacy during the interview are all important for the entire survey but are critical in ensuring the validity of the data on domestic violence. Complete privacy is also essential for ensuring the security of the respondent and the interviewer. Asking about or reporting violence, especially in households where the perpetrator may be present at the time of interview, carries the risk of further violence. Given all of these concerns related to the collection of data on violence, the CDHS 2005 took the following steps to ensure the validity of the data and the security of respondents and interviewers:

- Training was provided to interviewers to sensitize them to the problem of domestic violence in Cambodia and to the specific challenges involved in collecting data on violence. The need to form a rapport with the respondent and ensure privacy was emphasized both in teaching and practice.

- The module was specially designed to allow the interviewer to continue the interview only if privacy was ensured. If privacy could not be obtained, the interviewer was instructed to skip the module, enter an explanation of what happened, thank the respondent, and end the interview. Notably, in Cambodia, only 34 women selected for interview with the module were not interviewed due to security considerations.

- Only one woman in each household of the one-quarter sub-sample selected for the household relations module was administered the questions. In households with more than one eligible woman, the woman administered the module was selected using a simple method to make a completely random selection. This procedure does not adversely affect the representativeness of the violence data for Cambodia. By interviewing only one woman in each household about domestic violence, any security breach due to other persons in the household knowing that information on domestic violence was given was minimized.

- Informed consent of the respondent was obtained for the survey at the start of the CDHS interview. In addition, at the start of the module, each respondent was read a statement informing her that she was now going to be asked questions that could be personal in nature because they explored different aspects of the relationship between couples. The statement assured her that her answers were completely confidential and would not be told to anyone else and that no one else in the household would be asked these questions.

- Interviewers were provided with a list of organizations that provide services or referrals to victims of domestic violence and were instructed to give a copy of the list to abused women who appealed to them for help.

The domestic violence module was implemented in the same subsample of households as the women's status module, which consisted of one-fourth of the households selected for the 2005 CDHS.

21.1 Approach to Violence Measurement

Research on violence suggests that the most common form of domestic violence for adults is spousal violence. Thus, spousal violence was measured using a modified and greatly shortened conflict tactics scale (CTS) used by Strauss (1990). This scale has been found to be effective in measuring domestic violence and can be easily adapted for use in different cultural situations. In the 2005 CDHS, spousal violence was measured using the following set of questions:

Does/Did your (last) husband ever—

a) Push you, shake you, or throw something at you?
b) Slap you or twist your arm?
c) Punch you with his fist or with something that could hurt you?
d) Kick you or drag you?
e) Try to strangle you or burn you?
f) Threaten you with a knife, gun, or other type of weapon?
g) Attack you with a knife, gun, or other type of weapon?
h) Physically force you to have sexual intercourse even when you did not want to?
i) Force you to perform types of other sexual acts you did not want to?

The questions were asked with reference to the current husband for women currently married and the last husband for women not currently married. Women could answer with a "yes" or a "no" to each item, and in cases when the answer was a "yes," women were asked about the frequency of the act in the 12 months preceding the survey. A "yes" to one or more of items (a) to (d) constitutes evidence of ostensibly less severe physical violence, a "yes" to one or more of items (e) to (g) constitutes evidence of ostensibly more severe physical violence, and a "yes" to items (h) or (i) or both constitutes evidence of sexual violence.

A similar approach was used to measure the prevalence of emotional violence. Respondents were asked the questions:

Does/Did your (last) husband ever—

a) Say or do something to humiliate you in front of others?
b) Threaten you or someone close to you with harm?
c) Swear at you?

This approach of asking separately about specific acts has the advantage of not being affected by different understandings of what constitutes violence. A woman has to say whether she has, for example, ever been "slapped," not whether she has ever experienced any "violence." All women would probably agree on what constitutes a slap, but what constitutes a violent act or is understood as violence may vary across women as it does across cultures. Summary terms such as "abuse" or "violence" were not used in the title, design, or implementation of the module. The modified CTS approach also has the advantage of giving the respondent multiple opportunities to disclose any experience of violence.

In addition to spousal violence, the CDHS 2005 asked women whether they had experienced violence at the hands of anyone other than their current or last husband using the question: "From the time you were 15 years old has anyone other than your (current/last) husband hit, slapped, kicked, or done anything else to hurt you physically?" Women who responded yes to this question were asked about the person(s) who had done this and the frequency of such violence during the 12 months preceding the survey. Similar questions were used to measure violence during pregnancy and violence by women against their husband. Finally, new questions on sexual violence have been added to the 2005 CDHS. All women regardless of marital status were asked about whether or not a woman's first experience of sexual intercourse was forced against her will: "The first time that you had sexual intercourse, would you say that you had it because you wanted to, or because you were forced to have it against your will?" If the respondent answers in the affirmative to this question, she was then asked, "Were you physically forced?"

This review of questions shows that the 2005 CDHS uses a mix of approaches to measure domestic violence. More detail is available for spousal violence than for violence by other persons. The predominance of spousal violence in domestic violence justifies this emphasis on spousal violence.

21.2 Women's Experience of Violence since Age 15 and Recent Violence in the 12 Months Preceding the Survey

Table 21.1 shows the percentage of ever-married women who have experienced violence since age 15 and in the 12 months preceding the survey by background characteristics. A woman is said to have experienced any violence if she reported violence by a current or previous husband at any time or violence by anyone else since she was age 15. Similarly, recent violence (violence in the 12 months preceding the survey) includes violence by husbands or anyone else.

Table 21.1 Experience of beatings or physical mistreatment

Percentage of ever-married women who have experienced violence since age 15 and percentage who have experienced violence during the 12 months prior to the survey, by background characteristics, Cambodia 2005

Background characteristic	Percentage who have experienced violence: Since age 15	In the past 12 months	Number of women
Age			
15-19	20.6	7.9	67
20-29	20.2	9.8	616
30-39	24.3	12.4	691
40-49	22.5	8.9	664
Marital status			
In union	21.2	10.4	1,799
Divorced/separated	36.7	10.6	131
Widowed	24.1	7.5	107
Residence			
Urban	23.1	7.2	302
Rural	22.2	10.8	1,735
Province			
Banteay Mean Chey	28.3	15.6	83
Kampong Cham	26.6	18.3	265
Kampong Chhnang	22.8	9.6	78
Kampong Speu	26.5	10.8	106
Kampong Thom	22.4	11.3	98
Kandal	13.7	6.8	205
Kratie	27.9	8.5	40
Phnom Penh	23.9	7.1	188
Prey Veng	31.0	15.8	165
Pursat	30.0	16.4	53
Siem Reap	27.1	8.0	158
Svay Rieng	12.8	3.4	83
Takeo	19.9	7.1	144
Otdar Mean Chey	34.2	19.0	22
Battambang/Krong Pailin	13.1	5.7	129
Kampot/Krong Kep	6.7	2.2	106
Krong Preah Sihanouk/Kaoh Kong	23.0	7.6	44
Preah Vihear/Steung Treng	27.9	14.8	43
Mondol Kiri/Rattanak Kiri	24.8	14.6	27
Education			
No education	29.3	13.4	514
Primary	22.8	10.9	1,193
Secondary and higher	10.0	3.3	330
Employment status			
Employed for cash	23.9	11.6	876
Employed not for cash	21.4	8.9	496
Not currently working	20.8	9.6	660
Total	22.3	10.3	2,037

Note: Total includes 4 women for whom information on employment status is not available.

Just over one-fifth of ever-married women in Cambodia age 15-49 has experienced physical violence since age 15; one out of ten women has experienced violence in the 12 months preceding the survey. This implies that among women who have ever experienced violence, about half have experienced violence in the recent past. Table 21.2 shows that the most common form of violence is violence by current or previous husbands: 65 percent of women reported violence by a husband (alone or with others). Women who are currently divorced or separated were somewhat more likely than women who are either currently married or widowed to report that their husbands were the perpetrators of the violence they experienced.

Table 21.2 Perpetrators of violence

Percent distribution of women who have experienced any physical violence since age 15 by perpetrator of the violence, according to current marital status, Cambodia 2005

Current marital status	Perpetrators: Husband only	Previous husband only	Husband and others	Person other than husband	Cannot establish perpetrator	Total	Number of women
In union	52.2	1.6	10.3	32.1	3.8	100.0	381
Divorced/separated	(0.0)	(63.2)	(10.5)	(25.6)	(0.8)	100.0	48
Widowed	(0.0)	(52.5)	(10.2)	(35.3)	(2.0)	100.0	26
Total	43.7	11.0	10.3	31.6	3.4	100.0	455

Note: Figures in parentheses are based on 25-49 unweighted cases.

There is some variation in the reported prevalence of violence by background characteristics (Table 21.1). Prevalence is somewhat higher among women age 30-39 than among younger women and older women. Over a third of currently divorced or separated women reported experiencing violence since age 15; however, divorced or separated women are about equally as likely as women currently in union to report violence in the recent past. The prevalence of any violence is similar in urban and rural areas, while recent reporting of violence is somewhat higher in rural areas. Regarding region, prevalence is highest in Otdar Mean Chey, where 34 percent of ever-married women reported having experienced any violence and 19 percent reported violence in the 12 months preceding the survey. The prevalence of both any violence and recent violence is also relatively high in Prey Veng and Pursat. Prevalence of any violence and violence in the 12 months preceding the survey are both lowest in Kampot/Krong Kep (7 percent and 2 percent, respectively). The prevalence of violence decreases with increasing levels of education. However, even among the most educated women, 10 percent reported having experienced violence, while 3 percent reported experiencing violence in the 12 months preceding the survey.

21.3 VIOLENCE DURING PREGNANCY

Although the experience of violence at any time is likely to have adverse consequences for women's mental and physical health, violence during pregnancy carries additional risks to women's health and survival (due to the added vulnerability from being pregnant) and to the health and survival of the unborn child. Table 21.3 shows that 3 percent of ever-married women have experienced physical violence during pregnancy. Ten percent of widowed women reported violence during pregnancy, compared with 3 percent of currently married women and 6 percent of divorced and separated women. By region, the prevalence of violence during pregnancy varies from 0 percent in Kandal and Kampot/Krong Kep to 6 percent in Banteay Mean Chey. Women who are employed for cash are the most likely to report violence during pregnancy than women of other employment statuses, and women with secondary or higher education are the least likely to report the experience of domestic violence compared with women of other educational levels.

Table 21.3 Violence during pregnancy

Percentage of women who have experienced physical violence during pregnancy among ever-married women who have ever been pregnant, according to background characteristics, Cambodia 2005

Background characteristic	Percentage experiencing violence during pregnancy	Number of women ever pregnant
Age		
15-19	1.7	60
20-29	2.4	596
30-39	4.0	686
40-49	3.0	644
Marital status		
In union	2.5	1,762
Divorced/separated	6.0	125
Widowed	10.1	99
Residence		
Urban	3.1	293
Rural	3.1	1,693
Province		
Banteay Mean Chey	5.7	81
Kampong Cham	4.0	258
Kampong Chhnang	1.8	75
Kampong Speu	5.0	104
Kampong Thom	4.4	97
Kandal	0.0	205
Kratie	2.3	39
Phnom Penh	4.3	180
Prey Veng	4.7	159
Pursat	3.9	50
Siem Reap	1.1	152
Svay Rieng	3.9	83
Takeo	3.0	140
Otdar Mean Chey	5.3	22
Battambang/Krong Pailin	3.9	129
Kampot/Krong Kep	0.0	103
Krong Preah Sihanouk/Kaoh Kong	4.3	43
Preah Vihear/Steung Treng	1.6	42
Mondol Kiri/Rattanak Kiri	2.4	26
Education		
No education	2.8	494
Primary	3.6	1,167
Secondary and higher	1.9	325
Employment status		
Employed for cash	4.2	855
Employed not for cash	1.9	479
Not employed	2.7	648
Total	3.1	1,986

Note: Total includes 4 women for whom information on employment status is not available.

21.4 MARITAL CONTROL

Spousal violence rarely occurs in isolation from other controlling behaviors. Attempts by husbands to control the different aspects of the lives of their wives can be precursors to violent behaviors. To measure the degree of marital control exercised by husbands, ever-married women were asked whether their husband displayed any of the following behaviors: the husband was jealous or angry if she talked to other men, frequently accused her of being unfaithful, did not permit her to meet with her girlfriends, tried to limit her contact with her family, insisted on knowing where she was at

all times, and did not trust her with any money. Table 21.4 shows the percentage of women who said yes to each of the different behaviors and the percentage of women whose husband displayed none of these behaviors. However, the display of a complex of related behaviors is more informative than the display of any single behavior. Thus, Table 21.4 also shows the percentage of women who said that their husband displayed three or more of the listed behaviors.

Table 21.4 Marital control exercised by husband

Percentage of ever-married women whose husband displays various controlling behaviors, by background characteristics, Cambodia 2005

	Percentage of women whose husband:								
Background characteristic	Is jealous if she talks to other men	Accuses her of being unfaithful	Does not permit meetings with girl friends	Tries to limit contact with family	Insists on knowing where she is at all times	Does not trust her with money	Does at least 3 of these behaviors	Does none of these behaviors	Number of women
Age									
15-19	16.9	8.1	3.6	3.0	2.8	5.4	4.6	80.1	67
20-29	23.2	12.0	8.1	3.8	5.6	7.3	9.2	71.0	616
30-39	17.3	12.0	5.1	4.2	6.4	7.5	8.0	77.3	691
40-49	18.1	11.4	6.9	6.0	7.1	9.9	8.7	77.2	664
Marital status									
Currently married	18.0	10.4	5.2	3.7	5.3	6.9	6.7	77.0	1,799
<5 years	15.6	8.9	5.3	3.6	3.2	6.2	5.9	78.2	315
5-10 years	19.9	9.9	5.0	2.4	3.7	4.2	5.2	76.1	384
>10 years	16.2	10.2	5.1	4.3	6.0	7.3	7.0	78.6	965
Married more than once	30.5	16.0	6.6	2.7	10.3	13.3	10.1	64.6	135
Divorced/separated	38.7	30.9	25.5	18.0	20.3	24.4	35.1	51.6	131
Widowed	18.7	10.5	5.6	4.6	4.6	9.1	6.9	79.2	107
Number of living children									
0	30.6	19.1	15.4	6.3	11.1	15.1	17.3	61.9	131
1-2	20.9	11.4	6.6	3.5	5.0	5.9	7.3	74.4	843
3-4	16.5	10.8	6.0	6.5	6.4	9.2	8.9	77.8	626
5 or more	16.9	11.3	4.5	3.8	7.0	8.8	7.7	78.1	437
Education									
No education	16.5	10.9	5.7	3.6	6.1	7.6	6.6	78.6	514
Primary	20.9	12.7	7.1	5.3	6.8	9.0	9.7	73.0	1,193
Secondary and higher	18.1	9.3	5.8	3.7	4.6	6.0	6.9	79.2	330
Employment status									
Employed for cash	22.7	12.2	7.5	5.8	7.8	10.2	11.1	73.9	876
Employed not for cash	14.3	10.0	5.2	3.6	6.1	7.5	6.8	78.6	496
Not currently working	18.8	12.4	6.3	3.9	4.3	5.9	6.3	75.0	660
Husband's education									
No education	21.3	12.2	5.3	4.7	5.8	8.3	6.0	74.8	282
Primary	18.5	12.7	7.1	5.5	7.4	9.8	9.8	75.4	1,048
Secondary and higher	18.9	9.0	5.8	2.7	4.8	5.1	7.2	76.4	637
Interspousal age difference									
Wife older than husband by 2+ years	18.2	12.9	6.0	3.1	5.4	8.4	6.3	76.5	226
About the same age (difference +1 to -1 year)	16.8	9.8	7.1	4.7	6.1	6.3	7.8	76.8	454
Husband older than wife by:									
2-4 years	16.9	10.2	5.2	3.8	7.0	8.2	6.6	78.0	584
5-9 years	20.3	10.3	3.0	3.6	2.9	5.6	6.4	75.8	413
10+ years	19.0	8.7	4.2	0.8	3.0	4.9	4.3	77.7	121
Not currently married	29.7	21.7	16.5	12.0	13.2	17.5	22.4	64.0	238
Total	19.3	11.7	6.5	4.6	6.3	8.1	8.5	75.4	2,037

Note: Table is based on information for the current or most recent husband. Total includes 4 women for whom information on employment status is not available, and 70 women for whom information on interspousal age difference is not available.

The behavior women reported most often was that their husband was jealous if they talked to other men: this behavior was reported by one in five women (19 percent). Nine percent of women reported their husband displayed three or more of these behaviors. Three-quarters of women said that their husband did not display any of these behaviors. While the majority of women have marriages in which the husband imposes a minimal amount of control, about one in ten women are (or were) in marriages in which a substantial degree of marital control is (or was) displayed by the husband.

Women who are currently divorced or separated are most likely to report a high level of marital control in their last marriage (husband displays at least three of the controlling behaviors): 35 percent of these women said that their last husband displayed at least three of the controlling behaviors. Women who have no living children are twice as likely as women with living children to have husbands who display a high level of marital control.

21.5 INTERSPOUSAL VIOLENCE

Violence between spouses can take many forms: emotional, physical, sexual, or a combination of these. Sometimes such violence results in measurable health consequences such as physical injuries that require medical attention. Husbands are not always the perpetrators of spousal violence; sometimes wives initiate spousal violence.

Prevalence of Violence by Husbands

Table 21.5 shows the percentage of women who reported experiencing different types of violence. The types of violence are not mutually exclusive, and some women reported experiencing multiple forms of violence.

Nineteen percent of ever-married women reported experiencing emotional violence by husbands, 13 percent reported physical violence, and 3 percent reported sexual violence. As expected, there is considerable overlap between the types of violence experienced by women: 14 percent reported physical or sexual violence and 22 percent reported physical, sexual, or emotional violence. The 2000 CDHS and the 1996 Household Survey on Domestic Violence in Cambodia (Ministry of Women's Affairs and Project Against Domestic Violence, 1996) found that 16 percent of women surveyed had been physically abused by their partner.

The prevalence of different types of violence generally increases with age. Women who are divorced or separated reported the highest rates of violence: 33 percent experienced emotional violence, 24 percent experienced physical violence, and 6 percent experienced sexual violence at the hands of their last husband. These relatively high rates of marital violence (and also of violence during pregnancy and the high degree of marital control noted in Tables 21.3 and 21.4, respectively) perhaps reflect the reason these women are divorced, as well as a greater willingness to disclose violence among women who are no longer with the abusive husband. Women who are currently married but have been married more than once also report somewhat higher rates of violence than other currently married women who have been married only once.

Interestingly, while women with no living children are the most likely to report that their husbands exhibit a high level of control, they are the least likely to report physical violence. The prevalence of physical or sexual violence is lowest (7 percent) among women with secondary or higher education, compared with women with less education. A higher percentage of women who are employed for cash reported all three forms of violence as compared with women in other employment categories.

Table 21.5 Marital violence

Percentage of ever-married women who have ever suffered emotional, physical, or sexual violence by their husband, by background characteristics, Cambodia 2005

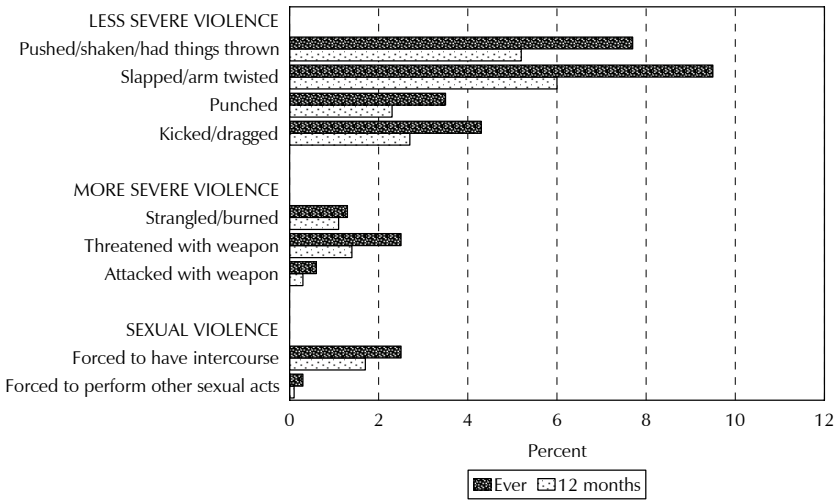
Background characteristic	Type of violence: Emotional violence	Physical violence: Less severe	Physical violence: More severe	Physical violence: Total	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Age								
15-19	14.2	4.6	1.8	6.4	1.9	7.0	18.6	67
20-29	16.3	7.0	3.8	10.8	2.2	11.7	19.6	616
30-39	18.0	7.9	6.2	14.2	2.4	14.9	22.6	691
40-49	21.6	5.1	8.8	13.9	3.5	14.8	25.0	664
Marital status								
Currently married	17.5	6.2	5.7	11.9	2.5	12.8	20.9	1,799
<5 years	13.0	4.8	3.5	8.3	2.0	9.2	15.8	315
5-10 years	12.8	5.3	3.7	9.0	1.9	9.8	16.6	384
>10 years	18.8	7.0	6.6	13.6	2.9	14.6	22.5	965
Married more than once	32.6	6.0	10.6	16.6	2.7	16.9	34.3	135
Divorced/separated	33.1	13.7	9.8	23.6	6.3	25.0	41.6	131
Widowed	17.7	5.5	9.0	14.5	1.3	14.5	22.0	107
Number of living children								
0	19.1	3.9	3.4	7.3	3.2	10.4	21.7	131
1-2	16.5	6.2	5.1	11.3	2.5	12.0	19.9	843
3-4	18.2	8.3	7.3	15.6	2.7	16.1	24.3	626
5 or more	22.8	5.9	7.6	13.4	2.9	14.3	24.5	437
Education								
No education	17.6	7.2	7.1	14.3	3.0	15.3	23.6	514
Primary	21.0	7.5	6.4	14.0	2.9	14.9	24.6	1,193
Secondary and higher	11.0	2.7	3.7	6.3	1.4	6.5	12.4	330
Employment status								
Employed for cash	21.4	6.5	8.9	15.4	3.1	16.0	25.2	876
Employed not for cash	15.2	7.8	3.5	11.3	2.6	12.6	20.6	496
Not currently working	17.3	5.9	4.6	10.6	2.3	11.3	19.9	660
Total	18.5	6.6	6.2	12.8	2.7	13.7	22.3	2,037

Note: Table is based on information for the current or most recent husband. Total includes 4 women for whom information on employment status is not available.

Frequency of Physical or Sexual Violence by Husbands

To determine how many women continue to experience violence at the present time, women were asked for each act ever committed by the husband, the number of times that he committed the act in the 12 months preceding the survey. From Figure 21.1, it is clear that the majority of women who have ever experienced any physical or sexual violence have also experienced it in the 12 months preceding the survey. Among the different physically violent acts, the ones most often reported by women include being slapped or having their arm twisted, and being pushed, shaken, or having something thrown at them. Ten percent of women reported having been slapped or having their arm twisted and 8 percent reported having been pushed, shaken, or had things thrown at them by their husband in the 12 months preceding the survey. The violent act least reported was being attacked with a weapon; 3 percent of women reported ever being forced to have intercourse and less than 1 percent reported ever having been forced to perform other sexual acts.

Figure 21.1 **Percentage of Ever-married Women Who Have Experienced Different Forms of Violence from Their Husband Ever and in the Past 12 Months**



Note: Figure is based on information for the current or most recent husband.

CDHS 2005

Among women who reported ever experiencing spousal violence (Table 21.6), two-thirds had experienced the violence in the 12 months preceding the survey. Thirty-one percent had experienced spousal violence three or more times in the 12 months preceding the survey. Women with one or two children were more likely than women with more children to have reported frequent spousal violence. Women with secondary or higher education were less likely to have experienced frequent violence than women with less education. Women who were employed for cash were most likely (35 percent) to have experienced frequent violence and women who were employed but did not earn cash were least likely (23 percent) to have experienced frequent violence in the year preceding the survey.

Table 21.6 Frequency of spousal violence

Percent distribution of ever-married women who reported having ever experienced physical or sexual violence by their husband by maximum frequency of any form of such violence in the 12 months prior to the survey, by background characteristics, Cambodia 2005

Background characteristic	Maximum frequency of any type of physical or sexual violence in the 12 months prior to the survey					Total	Number of women
	0	1-2	3-5	> 5	Don't know/ missing		
Age							
15-19	*	*	*	*	*	100.0	5
20-29	27.6	34.0	30.0	8.4	0.0	100.0	75
30-39	33.1	43.1	16.0	7.3	0.5	100.0	115
40-49	46.9	19.2	21.7	12.2	0.0	100.0	103
Marital status							
Currently married	28.8	37.1	22.8	11.1	0.2	100.0	246
<5 years	(12.2)	(35.1)	(39.2)	(13.5)	(0.0)	100.0	30
5-10 years	13.4	55.7	27.2	3.7	0.0	100.0	39
>10 years	34.7	33.5	19.7	12.2	0.0	100.0	148
Married more than once	(36.1)	(32.9)	(16.2)	(12.8)	(1.9)	100.0	29
Divorced/separated	(69.3)	(14.0)	(16.7)	(0.0)	(0.0)	100.0	35
Widowed	*	*	*	*	*	100.0	17
Number of living children							
0	*	*	*	*	*	100.0	15
1-2	26.9	37.1	29.3	6.7	0.0	100.0	106
3-4	37.6	34.0	16.7	11.3	0.5	100.0	112
5+	48.7	24.5	15.3	11.5	0.0	100.0	66
Education							
No education	38.3	28.5	21.2	12.0	0.0	100.0	90
Primary	33.6	34.6	22.9	8.6	0.3	100.0	186
Secondary and higher	(47.9)	(36.7)	(13.3)	(2.1)	(0.0)	100.0	23
Employment status							
Employed for cash	36.2	28.2	24.0	11.2	0.4	100.0	148
Employed not for cash	40.1	37.0	16.7	6.2	0.0	100.0	64
Not employed	33.1	38.1	20.9	7.9	0.0	100.0	86
Total	36.1	32.9	21.7	9.1	0.2	100.0	298

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Initiation of Violence by Husband

To study the timing of the initiation of marital violence, women who reported any spousal physical or sexual violence were asked, "How long after you got married to your (last) husband did (this/any of these things) first happen?"

From Table 21.7, it is clear that for most women violence starts early in the marriage. In about two-thirds of marriages, violence first occurred within five years of marriage, and in one-third of marriages it first occurred within two years. The median duration of marriage at which violence first occurred is 3.7 years; that is, for 50 percent of women who have experienced any violence in their marriage, the violence began within the first four years of marriage. One percent of all ever-married women who had experienced spousal violence reported that the violence was initiated before marriage. This is not surprising given that a large minority of women have known their husbands-to-be for a month or less prior to marriage (see Table 15.1).

Table 21.7 Onset of spousal violence

Percent distribution of ever-married women who have experienced physical or sexual violence by their husband by number of years between marriage and first experience of violence, according to marital status and number of marriages, Cambodia 2005

	Onset of violence									
		Years between marriage and first experience of violence								
Current marital status	Before marriage	< 1	1-2	3-5	6-9	10 or more	Don't know/ missing	Total	Median number of years	Number of women
Currently married										
Married only once	1.1	5.6	28.1	28.8	10.3	25.1	1.0	100.0	3.8	217
Married only once for:										
<6 years	0.0	7.9	74.0	9.8	0.0	6.3	2.0	100.0	1.8	38
6-9 years	(0.0)	(16.3)	(38.9)	(31.3)	(10.5)	(0.0)	(3.1)	100.0	(2.6)	24
10 or more years	1.6	3.3	15.0	33.1	12.8	33.7	0.5	100.0	5.2	154
Married more than once	(0.0)	(15.6)	(23.7)	(19.9)	(0.5)	(36.1)	(4.2)	100.0	(2.9)	29
Not currently married	0.8	12.8	28.3	23.1	12.5	20.7	1.7	100.0	3.6	52
Total	0.9	7.8	27.7	26.9	9.7	25.4	1.4	100.0	3.7	298

Note: Table is based on information for the current or most recent marriage. Figures in parentheses are based on 25-49 unweighted cases.

Consequences of Violence

Women were asked the following: "Did the following ever happen because of something your (last) husband did to you: a) you had bruises and aches? b) you had an injury or a broken bone? and c) you went to a health facility as a result of something your husband had done to you?" The three "consequences" asked about cannot be taken to be measures of the severity of violence. Instead a "yes" on each suggests only that the woman experienced adverse health outcomes because of something the husband did. In addition, the interpretation of responses to (c) is likely to be confounded by the fact that not all women who need to access a health facility are in a position to do so. Nonetheless, some insight into the relationship of these "outcomes" to the type/severity of violence can be obtained by tabulating, as in Table 21.8, the "consequences" data by the type of violence reported earlier by women.

Among ever-married women, 6 percent reported ever having had bruises or aches, and 4 percent reported having bruises and aches in the past year because of something their husband did. Bruises and aches are much more common than injuries and broken bones. One percent of all women reported receiving an injury or a broken bone because of something their husband did. One percent of women also reported visiting a health facility because of something their husband did.

Women who experienced severe violence are most likely to suffer consequences. Among women who reported ever experiencing severe physical violence, 50 percent reported ever having bruises and aches, and 37 percent reported having them in the prior 12 months, 14 percent reported having had an injury or a broken bone, and 13 percent reported having had to go to a health facility. For women experiencing less severe violence, the rates of injury are all lower than for women who experienced more severe violence but are nonetheless substantial. For example, 24 percent of women who ever experienced less severe physical violence reported receiving bruises and aches in the prior 12 months. Women who reported sexual violence are likely to have a high incidence of physical outcomes, in part because almost all women who reported sexual violence also reported some other form of physical violence. Similarly, the bruises, aches, injuries, and broken bones reported by women who experienced emotional violence are in part due to the overlap of emotional violence with other types of violence, but may also be due to some women not reporting the acts that resulted in these outcomes within the categories of physical and sexual violence they were provided.

Table 21.8 Physical consequences of spousal violence

Percentage of ever-married women who reported specific physical consequences that resulted from something their husband did to them, by type of violence reported, Cambodia 2005

	Had bruises and aches		Had injury or broken bone		Had to visit health facility		
Type of violence	Ever	Last year	Ever	Last year	Ever	Last year	Total
Emotional violence							
Ever	26.7	20.1	5.0	3.0	4.0	2.2	377
At least once in past 12 months	29.2	26.6	4.5	4.1	3.4	2.9	283
Less severe physical violence							
Ever	35.2	23.6	0.9	0.6	0.3	0.3	135
At least once in past 12 months	39.6	39.1	1.5	1.0	0.5	0.5	82
Severe physical violence							
Ever	50.3	37.2	13.9	6.6	12.5	7.0	126
At least once in past 12 months	55.0	52.2	10.4	10.4	10.9	9.8	80
Sexual violence							
Ever	41.7	31.5	13.5	4.8	6.0	3.2	55
At least once in past 12 months	(45.9)	(43.0)	(8.2)	(7.7)	(5.0)	(5.0)	34
Physical or sexual violence							
Ever	40.8	29.3	7.3	3.8	5.8	3.3	278
At least once in past 12 months	44.8	43.2	6.3	6.0	5.2	4.7	176
No violence reported	0.5	0.4	0.0	0.0	0.0	0.0	1,582
Total	6.1	4.4	1.0	0.6	0.8	0.5	2,037

Note: Table is based on information for the current or most recent husband. Figures in parentheses are based on 25-49 unweighted cases.

Interspousal Violence by Spousal Characteristics and Women's Status Indicators

Table 21.9 allows a more detailed examination of how women's experience of violence varies with the characteristics of their husband and marriage, by family structure, and by their status within the household.

While women are less likely to have experienced violence when their husband has a secondary or higher education, still 10 percent of such women have experienced physical or sexual violence. Women’s experience of violence varies with the extent of alcohol consumption by the husband. Women whose husbands get drunk are over six times more likely to have experienced physical or sexual violence than women whose husbands do not drink or do not get drunk. Overall, 88 percent of women whose husbands do not get drunk have not experienced any violence, compared with 48 percent of women whose husbands get drunk frequently.

Currently married women who are older than or the same age as their husband are most likely to experience emotional, physical, or sexual violence. By spousal education difference, in line with expectations, violence is least common among women who are equally educated as their husband.

Another important characteristic of marriages is the degree of marital control that a husband exercises. It is expected that the higher the degree of marital control, the higher the risk of violence in the marital relationship. Table 21.9 bears this out. Based on the items listed in Table 21.4, the higher the degree of control, the higher the likelihood that the woman has experienced all types of violence. For example, among women in marriages with low marital control (husband does not display any of the listed behaviors), 8 percent each reported ever experiencing physical or sexual violence, whereas among women in marriages with a high level of marital control (husband displays at least three of the six behaviors), 42 percent reported physical or sexual violence. The results for violence in the 12 months preceding the survey by marital control are equally dramatic.

Table 21.9 Spousal violence, women's status, and spousal characteristics

Percent of ever-married women who experienced specific types of violence by their husband ever (since age 15) and in the 12 months prior to the survey, and percentage who have been violent to their husband by selected women's status, spousal, and household characteristics, Cambodia 2005

Background characteristic	Emotional violence		Physical violence		Sexual violence		Physical or sexual violence		Have never experienced emotional, physical, or sexual violence	Violence against husband by respondent		Number of women
	Ever	Last year	Ever	Last year	Ever	Last year	Ever	Last year		Ever	Last year	
Husband's education												
No education	22.1	16.5	14.2	8.2	2.9	1.3	14.9	8.2	72.9	6.1	2.9	282
Primary	20.8	16.6	15.3	10.1	2.8	2.1	16.1	11.1	75.3	5.8	3.9	1,048
Secondary and higher	13.1	9.3	8.9	4.7	2.4	1.1	9.6	5.2	83.8	5.9	3.1	637
Interspousal age difference												
Wife older than husband by 2+ years	18.4	16.3	15.6	10.5	1.7	1.2	16.3	11.0	75.5	8.7	5.8	226
About the same age (difference +1 to -1 year)	20.5	18.4	14.3	11.5	4.9	4.0	15.7	12.9	75.7	4.2	3.6	454
Husband older than wife by:												
2-4 years	14.8	12.5	9.7	7.2	1.1	0.9	10.2	7.7	82.6	4.5	3.4	584
5-9 years	17.5	14.2	11.9	6.3	1.9	1.3	12.6	7.0	79.4	4.1	3.3	413
10+ years	18.0	14.0	7.2	4.5	3.8	1.5	8.4	5.5	79.8	2.7	1.2	121
Not currently married	26.1	5.7	19.5	5.1	4.1	0.3	20.3	5.1	67.2	13.6	2.1	238
Interspousal education difference												
Husband has more education	16.1	11.9	11.8	7.5	2.5	1.5	12.7	8.2	79.8	6.4	4.0	780
Wife has more education	21.0	16.5	14.1	8.5	2.5	1.6	14.6	9.2	75.9	5.1	2.9	888
Both have equal education	14.0	11.7	11.0	9.2	4.3	4.3	12.7	10.8	84.0	7.1	5.8	129
Neither educated	19.7	14.4	14.5	7.8	3.3	0.9	15.7	7.8	72.8	6.2	2.9	169
Alcohol consumption by husband												
Never drinks	9.2	6.0	6.0	3.9	0.5	0.5	6.5	4.4	87.9	2.5	1.5	544
Drinks but never gets drunk	10.8	10.8	1.5	0.6	0.0	0.0	1.5	0.6	88.3	0.0	0.0	36
Gets drunk sometimes	16.5	13.4	9.2	5.9	1.9	1.2	9.9	6.7	80.6	4.3	3.0	1,045
Gets drunk very often	43.6	34.0	38.1	24.7	10.0	6.3	40.4	26.0	47.7	17.8	9.7	303
Woman can refuse sex to husband[1]												
Yes for all reasons	17.2	12.3	11.7	7.0	2.3	1.4	12.4	7.6	79.3	5.8	3.3	1,598
No for one or more reasons	23.2	19.5	16.7	11.1	4.0	2.7	18.2	12.3	71.7	5.5	3.6	439
Number of household decisions[2] respondent participates in												
0 decision	*	*	*	*	*	*	*	*	*	*	*	3
1-2 decisions	6.9	6.9	3.3	1.8	0.3	0.3	3.3	1.8	91.2	0.4	0.4	56
3 or more decisions	18.8	14.0	13.1	8.1	2.8	1.7	13.9	8.8	77.3	5.9	3.5	1,978
Index of marital control[3] exercised by husband												
0 item (least control)	11.3	8.2	7.2	3.6	1.4	0.7	7.8	4.1	85.5	2.5	1.1	1,537
1-2 items	34.5	26.2	24.3	16.8	4.6	3.8	26.2	18.5	58.2	11.7	8.5	327
3-6 items (most control)	52.3	41.1	40.7	29.9	10.7	7.0	42.0	30.4	44.9	23.4	14.3	173
Family structure												
Nuclear	19.1	15.1	13.6	9.1	3.0	2.1	14.5	9.8	76.8	5.2	3.3	1,274
Non-nuclear	17.5	11.8	11.5	5.9	2.2	1.0	12.3	6.8	79.2	6.7	3.6	763
Total	18.5	13.9	12.8	7.9	2.7	1.7	13.7	8.7	77.7	5.8	3.4	2,037

Note: Table is based on information for the current or most recent husband. Total includes 70 women for whom information on interspousal age difference is not available, and 108 women for whom information on alcohol consumption by husband is not available. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] For the reasons included, see Table 20.8.

[2] For the decisions included, see Table 20.4.

[3] For the items included, see Table 21.4.

The two empowerment variables (women's agreement with reasons to refuse sex with husband and number of household decisions the respondent participates in) are associated with experience of physical and sexual violence in opposite directions. Women who say that a woman can refuse sex for all given reasons are less likely to report ever-experiencing physical or sexual violence than women who do not agree with all given reasons for a wife to refuse sex to her husband (12 percent as compared with 18 percent, respectively). However, women who participate in three or more household decisions are more likely than women who do not to report having experienced

physical and sexual violence. This, however, may reflect the fact that previously married women are both more likely to report violence from their former spouse as well as more likely to be making their own household decisions. Finally, the risk of all kinds of violence is slightly higher for women living in nuclear families (husband and wife with or without children) than in non-nuclear families (all other combinations of adults and children).

Violence by Wives Against Their Husbands

Women may sometimes be the perpetrators of violence. In most cultures, however, the rate of spousal violence initiated by wives is only a fraction of the rate of spousal violence initiated by husbands. The 1996 Household Survey on Domestic Violence in Cambodia (Ministry of Women's Affairs and Project Against Domestic Violence, 1996) found that 3 percent of men reported being physically abused by their wives. In the CDHS 2005, to measure violence by wives against their husband, women were asked, "Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) husband at times when he was not already beating or physically hurting you?" Six percent of women reported having ever hit, slapped, kicked, or done something to physically hurt their husband when he was not doing anything to hurt them. Three percent said that they have done so in the 12 months preceding the survey. These rates of violence by women against their husband do not vary between most subgroups of women. There are, however, a few exceptions. The rates of abuse by wives against their husbands were higher for women whose husbands got drunk often (18 percent); they were also higher for women in marriages in which the husband displayed excessive marital control (23 percent).

21.6 Experience of Forced Sex at Sexual Initiation

The 2005 CDHS for the first time collected data about use of force during first sexual intercourse. Table 21.10 indicates that among all Cambodian women who report that they have ever had sex, 3 percent experienced their first sexual intercourse by force against their will. The same proportion of women reported a forced first sex regardless of whether their first sexual intercourse occurred at the time of first marriage or before first marriage.

Table 21.10 Experienced force at sexual initiation

Percentage of women age 15-49 who have ever had sexual intercourse who say that their first experience of sexual intercourse was forced against their will, by age at first sexual intercourse and whether the first sexual intercourse was at the time of marriage or before first marriage, Cambodia, 2005

First sexual experience	Percentage whose first sexual intercourse was forced against their will	Number of women who have ever had sex
Age at first sexual intercourse		
< 15	1.9	55
15-19	3.0	999
20-24	2.9	713
25-29	2.4	158
30-49	3.0	51
First sexual intercourse was		
At the time of first marriage/ first cohabitation	2.9	1,841
Before first marriage/ first cohabitation	2.8	134
Total	2.8	2,037

Note: Total includes 62 women for whom information on age at first sexual intercourse is not available.

21.7 Help-Seeking Behavior by Women Who Have Experienced Violence

The CDHS 2005 asked all women who had reported any physical or sexual violence by their husbands, or any physical violence by anyone else, if they had ever tried to get help. Table 21.11 shows the percentage of women who sought help by the perpetrator of the violence and by the frequency of violence in the 12 months preceding the survey.

Overall, nearly one in three women who had experienced violence asked someone for help. This is an increase from the 2000 CDHS, when only one in five women reported seeking help and may reflect the influence of the draft legislation on domestic violence that was pending during the years between CDHS surveys. Women were most likely to seek help from their own family (51 percent) or from some other source (46 percent). Women were least likely to have sought help if the perpetrator of violence was a person other than a husband (23 percent). By contrast, one-third of women who experienced violence by their husband and others (38 percent) or women who experienced violence by a previous husband (53 percent) sought help. Among women who were beaten one or more times in the past year, help seeking increased with the frequency of violence, from 31 percent for women who experienced violence only once in the 12 months preceding the survey to 52 percent for women who experienced violence four or more times in the period. In the 2000 CDHS, only 33 percent of women hit four or more times in the past year sought help to stop the violence.

Table 21.11 Help-seeking behavior among all women who have experienced violence

Among all women who reported having ever experienced any physical or sexual violence, the percentage who tried to get any help, and the distribution of women who sought help according to the type of person from whom they sought help, by perpetrator of the violence and frequency of the violence, Cambodia 2005

Perpetrator/frequency of violence	Percentage who have sought help	Number of women who experienced physical or sexual violence[1]	Persons from whom help was sought				Number of women who sought help[2]
			Own family	In-laws	Other relatives/ friends	Other	
Persons perpetrating violence							
Husband only	31.4	197	45.9	9.5	17.4	48.5	62
Earlier husband only	(52.6)	50	*	*	*	*	26
Husband and others	37.5	49	(38.6)	(24.6)	(12.2)	(50.9)	18
Others only	22.5	223	51.9	0.0	1.1	49.3	50
Frequency of violence in past year							
None	25.9	303	51.6	6.4	8.1	44.5	78
1 time	30.7	86	*	*	*	*	26
2-3 times	33.0	77	(53.4)	(8.2)	(21.6)	(51.5)	26
4 or more times	52.4	65	(37.4)	(11.8)	(6.0)	(55.5)	34
Total	31.0	538	50.5	7.3	9.6	45.8	167

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Total includes 19 women for whom information on person perpetrating the violece is not available, and 7 women for whom information on frequency of violence in last year is not available.

[2] Total includes 10 women for whom information on person perpetrating the violence is not available, and 2 women for whom information on frequency of violence in last year is not available.

REFERENCES

Department of Planning and Health Information. Phnom Penh, 2006. National Health Statistics 2005. Available at
http://www.moh.gov.kh/content/documents/1/Anuual%20Health%20Statistics%202005.pdf.

Filmer, Deon and Lant Pritcett. 1998. *Estimating Wealth Effects without Expenditure Data – or Tears: An Application to Educational Enrollments in States of India*. World Bank Policy Research Working Paper No. 1994. Washington, DC: Development Economics Research Group (DECRG), The World Bank.

Kishor S, Johnson K. 2006. Reproductive health and domestic violence: are the poorest women uniquely disadvantaged? Demography 43(2): 293-307.

Martorell, R. and Habicht, J.P. 1986. Growth in early childhood in developing countries. In *Human growth: A comprehensive treatise*, ed. F. Falkner and J.M. Tanner, Vol.3. New York: Plenum Pres. 241-262.

Ministry of Health. 2002. Health Sector Strategic Plan 2003-2007. Phnom Penh, Cambodia.

Ministry of Health. 2006. Joint Annual Performance Review, 2006. Phnom Penh, Cambodia.

Ministry of Planning. 2006. National Strategic Development Plan 2006-2010. Phnom Penh, Cambodia.

Ministry of Women's Affairs and Project Against Violence (MWAPAV) [Cambodia]. 1996. *Household Survey on Domestic Violence in Cambodia*. Phnom Penh, Cambodia.

National Center for Health Statistics. 2000. CDC. CDC Growth Charts: United States. Advance Data No. 314, Vital and Health Statistics of the Centers for Disease Control and Prevention.

National Institute of Public Health (NIPH) [Cambodia]. 1999. *National Health Survey. Cambodia 1998*. Phnom Penh: Ministry of Health. National Institute of Public Health.

National Institute of Statistics. 1999. General Population Census 1998. Phnom Penh Cambodia.

National Institute of Statistics. 2004. Cambodia Inter-Censal Population Survey 2004. General Report. Phnom Penh, Cambodia.

National Institute of Statistics, Directorate General for Health [Cambodia], and ORC Macro. 2001. *Cambodia Demographic and Health Survey 2000*. Phnom Penh, Cambodia, and Calverton, Maryland USA: National Institute of Statistics, Directorate General for Health, and ORC Macro.

Rutstein, Shea. 1999. Wealth versus expenditure: Comparison between the DHS wealth index and household expenditures in four departments of Guatemala. Calverton, Maryland: ORC Macro.

Rutstein, SO. 2005. Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: evidence from the demographic and health surveys. International Journal of Gynecology and Obstetrics 89 (Supplement 1): S7-S24.

Strauss, M.A. 1990. Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. In M.A. Strauss and R.J. Gelles (eds.) *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families*. 29-47. New Brunswick: Transaction Publishers.

United Nations General Assembly. 1991. *Advancement of women: Convention on the elimination of all forms of discrimination against women, Report of the Secretary-General*. New York: United Nations.

United Nations. 1992. *Abortion policies: A global review: Volume 1 Afghanistan to France*. Department of Economic and Social Development. New York, New York: United Nations.

UNICEF. 2005 *Guide to monitoring and evaluation of the national response for children orphaned and made vulnerable by HIV/AIDS*. New York: UNICEF

World Health Organization (WHO) and United Nations Children's Fund (UNICEF), Joint Monitoring Programme for Water Supply and Sanitation. 2004. *Guide for Water Supply, Sanitation and Hygiene Related Household Survey Questions*, WHO and UNICEF.

World Health Organization (WHO), United Nations Children's Fund (UNICEF). 2005. World Malaria Report 2005. Available at http://www.rollbackmalaria.org/wmr2005/.

Zimmerman, C. 1994. *Plates in a basket will rattle: Domestic violence in Cambodia*. Phnom Penh: The Asia Foundation, USAID

SAMPLE IMPLEMENTATION *Appendix A*

A.1 INTRODUCTION

The 2005 Cambodia Demographic and Health Survey (CDHS 2005) is the second national Demographic and Health Survey conducted in Cambodia. The first one was conducted in 2000. CDHS 2005 calls for a nationally representative sample of 18,000 interviews of women between the ages of 15 and 49. The survey is designed to provide information on fertility and childhood mortality, family planning, maternal and child health, knowledge and behavior regarding AIDS and other sexually transmitted infections (STI), domestic violence, and HIV prevalence among the adult population. Survey estimates will be reported for 19 study domains, of which 14 are individual provinces (Banteay Mean Chey, Kampong Cham, Kampong Chhnang, Kampong Speu, Kampong Thom, Kandal, Phnom Penh, Prey Veng, Pursat, Svay Rieng, Takeo, Kratie, Siem Reap and Otdar Mean Chey) and five are groups of provinces. The composition of the five groups of provinces is as follows:

Group 1: Battambang and Krong Pailin;
Group 2: Kampot and Krong Kep;
Group 3: Krong Preah Sihanouk and Kaoh Kong;
Group 4: Preah Vihear and Steng Treng; and
Group 5: Mondol Kiri and Rattanak Kiri.

In addition, a men's survey was conducted in a subsample of one out of two (50 percent) households selected for the women's survey. All men ages 15-49 in the selected households were eligible for the men's survey. The survey was designed to collect information on family planning, knowledge and behavior regarding AIDS, and other STIs. All men ages 15-49 and all women ages 15-49 in the selected households for the male survey were also eligible for HIV testing

A.2 SAMPLING FRAME

The sampling frame used for CDHS 2005 is the complete list of all villages in the 1998 Cambodia General Population Census (GPC). In addition, 166 villages not in the GPC 1998 were provided by the National Institute of Statistics (NIS). The sampling frame consists of 13,505 villages throughout the nation. The frame includes information about the villages' locality, number of regular households, population size, type of residence (urban/rural), and other socioeconomic information. A map delimitating village boundaries was also created. Of the 13,505 villages, 1,312 villages are urban and 12,193 villages are rural. The size of the villages (e.g., the number of regular households in the village) varies from 0 to 3,732, with an average of 161 households.

Table A.1 shows the distribution of the villages by province and type of residence. The percent distribution of the population by study domain and type of residence is shown in Table A.2. The distribution shows a great diversity in domain size. In terms of population, the largest domain is the province Kampong Cham, which represents 14.1 percent of the total population. The smallest domain is the province Otdar Mean Chey, which represents only 0.6 percent of the total population. The urban/rural distribution of each study domain is also shown in Table A.2. The urbanization level varies from 2.8 percent (Kampong Cham) to 64.5 percent (the group of Kaoh Kong and Krong Preah Sihanouk). For the nation as a whole, 15.6 percent of the population lives in urban areas.

Table A.1 Distribution of the villages by province and type of residence (sampling frame, Cambodia GPC 1998)

		Number of households		Number of villages		Province total	
Code	Province	Urban	Rural	Urban	Rural	Household	Village
1	Banteay Mean Chey	18,201	94,655	59	555	112,856	614
2	Battambang	25,248	124,022	62	556	149,270	618
3	Kampong Cham	7,940	302,749	31	1,717	310,689	1,748
4	Kampong Chhnang	7,283	73,716	26	520	80,999	546
5	Kampong Speu	7,370	106,614	56	1,263	113,984	1,319
6	Kampong Thom	12,169	93,357	55	682	105,526	737
7	Kampot	6,007	98,485	15	462	104,492	477
8	Kandal	10,111	192,944	20	1,067	203,055	1,087
9	Kaoh Kong	5,292	18,626	11	116	23,918	127
10	Kratie	14,544	34,142	74	183	48,686	257
11	Mondol Kiri	1,243	4,350	14	84	5,593	98
12	Phnom Penh	94,028	72,723	405	232	166,751	637
13	Preah Vihear	4,044	16,450	31	173	20,494	204
14	Prey Veng	10,519	182,141	42	1,094	192,660	1,136
15	Pursat	10,704	57,330	63	432	68,034	495
16	Rattanak Kiri	3,124	13,496	16	224	16,620	240
17	Siem Reap	20,131	104,357	77	805	124,488	882
18	Krong Preah Sihanouk	27,190	0	85	0	27,190	85
19	Stueng Treng	4,240	9,736	17	111	13,976	128
20	Svay Rieng	4,065	93,714	18	672	97,779	690
21	Takeo	6,900	146,869	40	1,076	153,769	1,116
22	Otdar Mean Chey	3,743	15,485	21	169	19,228	190
23	Krong Kep	5,236	0	16	0	5,236	16
24	Krong Pailin	3,970	0	58	0	3,970	58
	Total	313,302	1,855,961	1,312	12,193	2,169,263	13,505

Table A.2 Population distribution by study domain and type of residence (sampling frame, Cambodia GPC 1998)

CDHS domain code	NIS code	Province	Urban	Province
1	1	Banteay Mean Chey	17.2%	5.0%
2	3	Kampong Cham	2.8%	14.1%
3	4	Kampong Chhnang	10.0%	3.7%
4	5	Kampong Speu	6.9%	5.2%
5	6	Kampong Thom	11.6%	5.0%
6	8	Kandal	5.3%	9.4%
7	10	Kratie	30.1%	2.3%
8	12	Phnom Penh	57.0%	8.7%
9	14	Prey Veng	5.8%	8.3%
10	15	Pursat	16.0%	3.1%
11	17	Siem Reap	16.9%	6.0%
12	20	Svay Rieng	4.4%	4.2%
13	21	Takeo	4.9%	7.0%
14	22	Otdar Mean Chey	31.3%	0.6%
15	2	Battambang	20.1%	7.0%
15	24	Krong Pailin		
16	7	Kampot	11.0%	4.9%
16	23	Krong Kep		
17	9	Kaoh Kong	64.5%	2.5%
17	18	Krong Preah Sihanouk		
18	13	Preah Vihear	23.1%	1.7%
18	19	Stueng Treng		
19	11	Mondol Kiri	18.9%	1.1%
19	16	Rattanak Kiri		
		Total	15.6%	100.0%

A.3 SAMPLE ALLOCATION

Sample allocation plays an important part in sample design because it relates to the survey precision at the national level. In the absence of accurate information on the main survey indicators at the domain level, the best allocation is proportional allocation. The allocation is proportional to the domain's target population size. Since the desired sample size at the national level is large (18,000 completed women interviews between the ages of 15 and 49), survey precision at the national level is

not the only goal. Rather, given the large number of study domains (19 domains), the survey precision at domain level was a primary concern for the CDHS 2005 design.

To ensure comparability across the study domains, the sample size for each domain should be close. Due to the diversity of domain size, however, proportional allocation could not be used. For example, the smallest province, Otdar Mean Chey, would have had only 108 completed women interviews. The experience from other DHS surveys shows that a sample size of 800 completed women interviews is necessary to provide satisfactory precision. Therefore, an equal size allocation was adopted. This means the 18,000 completed women interviews were equally distributed among the 19 study domains. With this approach, some of the large domains will be undersampled and some of the small domains will be oversampled. Urban and rural areas of Cambodia are two different study domains. Given the small percentage (15.6 percent) of the urban population, oversampling is applied to urban areas to ensure that the survey precision is comparable across urban and rural areas.

The sample allocation between urban and rural areas is a power allocation, which is an allocation between proportional allocation and equal size allocation. A power value is applied to achieve a satisfactory sample size. Table A.3 shows the sample allocation of completed women interviews by study domain and by type of residence. Oversampling or undersampling any particular domain does not pose any problems for representativeness if sampling weights are properly calculated and applied in tabulation. (See section 7 for details on weighting and representativeness.)

Table A.3 Sample allocation of complete women interviews according to study domain and by type of residence (CDHS 2005)

	Women allocation		
Domain of study	Urban	Rural	Domain
Banteay Mean Chey	237	710	947
Kampong Cham	73	874	947
Kampong Chhnang	167	780	947
Kampong Speu	132	815	947
Kampong Thom	184	763	947
Kandal	111	836	947
Kratie	337	610	947
Phnom Penh	520	427	947
Prey Veng	118	829	947
Pursat	226	721	947
Siem Reap	234	713	947
Svay Rieng	99	848	947
Takeo	106	841	947
Otdar Mean Chey	347	600	947
Group 1	261	686	947
Group 2	178	769	947
Group 3	571	376	947
Group 4	285	662	947
Group 5	251	696	947
Total	4,437	13,556	17,993

The above sample allocation must be converted to a number of primary sampling units and a number of households. It was decided to select 24 households in an urban cluster and 28 households in a rural cluster, based on the following facts obtained from 2000 CDHS: there were 1.46 women age 15-49 per urban household and 1.24 per rural household; the household response rate was 95 percent; the individual response rate was 98 percent. Table A.4 below shows the sample distribution of clusters and households by domain and by type of residence. The total number of clusters is 557, with 137 urban clusters and 420 rural clusters. The total number of households selected is 15,048, with 3,288 urban households and 11,760 rural households. The final distribution of complete women interviews is slightly higher because of rounding the numbers of clusters and households.

Table A.4 Sample distribution according to study domain and by type of residence (CDHS 2005)

Domain of study	Allocation of clusters			Allocation of households			Allocation of completed women 15-49		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Banteay Mean Chey	7	22	29	168	616	784	229	711	940
Kampong Cham	3	27	30	72	756	828	97	872	969
Kampong Chhnang	5	24	29	120	672	792	163	775	938
Kampong Speu	4	25	29	96	700	796	130	809	939
Kampong Thom	6	24	30	144	672	816	196	775	971
Kandal	3	26	29	72	728	800	97	841	938
Kratie	10	19	29	240	532	772	326	613	939
Phnom Penh	16	13	29	384	364	748	522	420	942
Prey Veng	4	26	30	96	728	824	130	841	971
Pursat	7	22	29	168	616	784	229	711	940
Siem Reap	7	22	29	168	616	784	229	711	940
Svay Rieng	3	26	29	72	728	800	97	841	938
Takeo	3	26	29	72	728	800	97	841	938
Otdar Mean Chey	11	19	30	264	532	796	359	613	972
Group 1	8	21	29	192	588	780	261	679	940
Group 2	5	24	29	120	672	792	163	775	938
Group 3	18	12	30	432	336	768	587	388	975
Group 4	9	20	29	216	560	776	293	647	940
Group 5	8	22	30	192	616	808	261	711	972
Total	137	420	557	3,288	11,760	15,048	4,466	13,574	18,040

A.4 SAMPLING PROCEDURE AND UPDATING OF THE SAMPLING FRAME

The 2005 CDHS sample is a stratified sample selected in two stages. Stratification is achieved by separating every study domain into urban and rural areas. Areas are defined as urban or rural based on the classification in the 1998 GPC, provided by NIS. Therefore the 19 domains are stratified into 38 sampling strata in total. Samples are selected independently in every stratum, by a two-stage selection. This means that 38 independent samples were selected, one from each sampling stratum. Implicit stratifications were achieved at each of the lower geographical or administrative levels by sorting the sampling frame according to the geographical/administrative order and by using a probability proportional to the size selection in the first stage of sampling. The explicit and implicit stratifications together guarantee a better scattering of the sampled points.

In the first stage of selection, 557 villages were selected with a probability proportional to the village size. The village size is the number of households in the village. After this selection and before the data collection, an updating operation was conducted over all of the 557 selected villages. The updating operation consisted of visits to every selected village. During the visits, records were made of every structure found on the ground; structures were identified by type (residential or not); number of households in each residential structure were identified; location map and a sketch map were drawn showing the boundaries of the village and the location of each structure. This important operation guaranteed the quality of the fieldwork and prevented nonsampling errors.

A household list was set up for each selected village. The resulting lists of households served as the sampling frame for the selection of households in the second stage. Some of the selected villages were big. To minimize the task of household listing, villages with more than 300 households were segmented. A segment corresponds to an enumeration area (EA) that was created for the GPC 1998. Size and boundaries were well-defined and maps were available. Among segmented villages, only one EA was selected from the village with a selection probability proportional to the EA size. Household listing was conducted only in the selected EA. Therefore, a CDHS cluster is either a village or an EA.

In the second stage of selection, a fixed number of 24 households were selected in every urban cluster, and 28 households were selected in every rural cluster. They were selected by an equal probability systematic sampling. The decision on number of households selected per cluster is a tradeoff between fieldwork efficiency and precision. All women ages 15-49 in the selected households were eligible for the interview. The advantages of this two-stage selection procedure are:

1. It is simple to implement and reduces possible nonsampling errors.
2. It is easy to locate the selected households, reducing nonsampling errors and nonresponse.
3. The interviewers interview only the households in the preselected dwellings. No allowance for replacement of dwellings prevents survey bias.

A.5 MALE SUBSAMPLE

In the households selected for the female survey in each cluster, a subsample of one out of two (50 percent) households was also selected for men's survey. All men ages 15-49 in the selected households were eligible for the men's survey. Conduct a men's survey on a subsample was based on the budget reduction and finding acceptable precision for men's indicators. The minimum sample size is larger for women than men because complex indicators (such as total fertility and infant and child mortality rates) require larger sample sizes to achieve sampling errors of reasonable size, and these data come from interviews with women. The men's subsample was selected randomly, and is representative for the study domains and for the country as a whole. Table A.5 shows the sample distribution of selected households and the expected completed men interviews according to study domain and type of residence:

Table A.5 Sample distribution of men survey according to study domain and by type of residence, CDHS 2005

	Households selected			Eligible men selected			Men completed		
Domain of study	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Banteay Mean Chey	84	308	392	103	328	431	93	295	388
Kampong Cham	36	378	414	44	402	446	40	362	402
Kampong Chhnang	60	336	396	74	358	431	66	322	388
Kampong Speu	48	350	398	59	372	431	53	335	388
Kampong Thom	72	336	408	88	358	446	79	322	401
Kandal	36	364	400	44	387	431	40	349	389
Kratie	120	266	386	147	283	430	132	255	387
Phnom Penh	192	182	374	235	194	429	212	174	386
Prey Veng	48	364	412	59	387	446	53	349	402
Pursat	84	308	392	103	328	431	93	295	388
Siem Reap	84	308	392	103	328	431	93	295	388
Svay Rieng	36	364	400	44	387	431	40	349	389
Takeo	36	364	400	44	387	431	40	349	389
Otdar Mean Chey	132	266	398	162	283	445	146	255	401
Group 1	96	294	390	118	313	430	106	282	388
Group 2	60	336	396	74	358	431	66	322	388
Group 3	216	168	384	265	179	443	238	161	399
Group 4	108	280	388	132	298	430	119	268	387
Group 5	96	308	404	118	328	445	106	295	401
Total	1,644	5,880	7,524	2,015	6,256	8,271	1,815	5,634	7,449

Note: The number of men ages 15-49 per household used in the calculation: urban = 1.29; rural = 1.12; as estimated in CDHS 2000 (the census found urban = 1.43; rural = 1.10). Household response rates were assumed to be the same as for the women's survey (95%), and men's response rate was assumed to be 90% (there was no men's survey in the CDHS 2000).

A.6 SAMPLING PROBABILITIES

Sampling probabilities are important survey parameters which are the bases of the sampling weight calculations. The sampling probabilities will be calculated separately for each sampling stage and for each cluster. We use the following notations:

P_{1hi}: first-stage sampling probability of the ith cluster in stratum h
P_{2hi}: second -stage sampling probability within the ith cluster (households)

Let a_h be the number of clusters selected in stratum h, M_{hi} the number of households according to the sampling frame in the ith cluster, and M_{hi} the total number of households in the stratum. The probability of selecting the ith cluster in the CDHS 2005 sample is calculated as follows:

$$\frac{a_h M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected EA compared with the total number of households in cluster i in stratum h if the cluster is segmented, otherwise $b_{hi} = 1$. Then the probability of selecting cluster i in the sample is:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster i in stratum h, let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the production of the two stages selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

A.7 Weighting And The Representativeness

Proper weighting of the survey data is important to guarantee the representativeness of the survey data, and to prevent bias caused by nonresponse. All analysis based on survey data must properly apply the sampling weights to guarantee the validity of the survey findings, especially for a complex survey. In a complex survey, every individual has a special chance (known as inclusion probability) of being selected in the sample. His/her answers must be properly weighted (basically, by the reciprocal of his or her inclusion probability) to be representative. For example, if a particular individual was selected in the sample with a probability of 0.001, then he/she represents 1,000 similar individuals in the base population. Therefore, his/her answers to all of the questions must be multiplied by 1,000 to be representative. If another particular individual is selected with a probability of 0.002, then he/she represents 500 similar individuals in the base population, and therefore will receive a weight of 500. Representativeness means being able to expand the sample to the base population. Since the samples are selected independently in each study domain, they are representative for their corresponding domains, if properly weighted. If each individual sample is representative for its domain, then the overall sample for the country as a whole is representative for the country. Therefore the CDHS 2005 sample is representative for the 19 study domains (14 individual provinces and 5 groups of provinces), for urban and rural areas, and for the country as a whole.

CDHS 2005 is a complex survey including multi-stage, clustering, stratification and unequal probability sampling. The design is essentially a self-weighting design. Because of the non-proportional allocation of the samples to the different 19 reporting domains and their urban rural areas, and the differences in the number of households in the base file and the number of households listed in the household listing operation for each cluster, the self-weighting conditions were no longer met. Therefore weights are required to ensure the actual representativeness of the sample at both domain level and national level.

Several sets of weight are calculated for CDHS 2005 in order to satisfy different users of the dataset. First, a set of household weight was calculated for the selected households. All household indicators were tabulated by applying this set of weight. The sampling weight for each household in cluster *i* of stratum *h* is the inverse of its selection probability (calculated in section VI) :

$$W_{hi} = 1/P_{hi}$$

This weight was further adjusted for non-response at household level. Nonresponse adjustment was essential to prevent bias caused by non-response. For the convenience of statement, the following notations were used:

n_{HH} : the total number of household allocated to the given stratum

n_{HHF} : the total number of households found in the given stratum, $0 \le n_{HHF} \le n_{HH}$

n_{HHC} : the total number of households completed the survey in the given stratum, $0 \le n_{HHC} \le n_{HHF}$

Then the probability of response in the household level in the given stratum is:

$$P_{HH} = \frac{n_{HHF}}{n_{HH}} \times \frac{n_{HHC}}{n_{HHF}} = \frac{n_{HHC}}{n_{HH}}$$

The adjusted weight for each household in cluster *i* of stratum *h* is given by:

$$W_{hi}^{*} = W_{hi} / P_{HHhi}$$

This adjustment was based on the assumption of homogeneity of the response behavior within sampling stratum. This means it was unlikely that one particular household responded to the survey significantly differently from others in the same stratum. This assumption is reasonable because the stratification is based on urban and rural residence, and almost all DHS surveys show differences in response behaviors by urban and rural residence.

The above adjusted weight was further normalized (called standard weight) at the national level to make the number of weighted cases equal to the number of unweighted cases for all household indicators based on the whole national sample. This treatment had no effect on the indictors themselves. But it did affect the number of weighted cases to reflect the relative scale of the base population it represents. The normalization was done by multiplying the whole set of weights by a *unique constant*, which was the number of unweighted total number of households interviewed over the weighted total number of households interviewed:

$$W_{hi}^{**} = W_{hi}^{*} \times \frac{\sum\sum n_{HHChi}}{\sum\sum\left(W_{hi}^{*} \times n_{HHChi}\right)}$$

Second, a set of women individual standard weight was calculated based on the household standard weight calculated above: correct for women nonresponse normalization. Since all women ages 15-49 were interviewed in every selected household, women should share the same weight as that of the household where they belong. And since there are non-responses at individual level, that is, not all of the eligible women in the selected household answered the survey; the household standard weight must be corrected for women's nonresponse. The following notations were used:

n_{WF} : the total number of eligible women found in all of the interviewed households in a given stratum

n_{WC} : the total number of women completed the survey in the given stratum

Then the women's individual weight was calculated by :

$$W_{Whi} = W_{hi}^{**} \times \frac{n_{WF}}{n_{WC}}$$

Women's standard weight was calculated by :

$$W_{Whi}^{*} = W_{Whi} \times \frac{\sum\sum n_{WChi}}{\sum\sum\left(W_{Whi} \times n_{WChi}\right)}$$

The reason for normalization of the individual weight is the same as for the normalization of household weight. The household standard weight and men's individual standard weight for the male subsample were calculated the same way. The household, women's, and men's weights were cluster weights. All the households in the same cluster shared the same household weights; all women and men in the same cluster shared the same weight for women and men, respectively.

A special set of weight for the domestic violence module was also calculated and normalized the same way. It also adjusted for the selection of only one eligible woman in each household for the domestic violence module. Therefore, the weight for the domestic violence module was an individual weight which was related to the number of eligible women in the household.

A spreadsheet for the calculation of the standard weights was prepared for facilitating the calculation. See "Standard weight calculation for CDHS 2005."

A.8 HIV Testing and the HIV Weights

CDHS 2005 included HIV testing in a subsample of one out of two (50 percent) households selected for both men's and women's survey. All men ages 15-49 and all women ages 15-49 in the selected households in this subsample were eligible for the HIV testing. Conducting the HIV testing in a subsample was based on the considerations of budget restriction and precision requirement. The CDHS 2005 sample has a size of 18,000 completed women interviews. To get the HIV prevalence level among adult population and for comparison between male and female population. Approximately the same number of male individuals needed to be tested. Therefore, to test all the interviewed women and the same number of men meant a considerable amount of money and a large scale of laboratory work. But for precision considerations, not a large sample was required. Therefore, the best way was to do the HIV testing in the men's subsample.

The individuals tested for HIV were given a special weight for calculating the HIV prevalence. This was different from their survey standard weight for several reasons: First, the response behavior toward HIV testing was different from the response behavior in the main survey. Also, men and women responded differently. Therefore, the HIV weight was calculated by correcting the nonresponse for the individual survey and for HIV testing. Second, the HIV testing was conducted on a subsample. The standardized individual weight includes nontested individuals. Finally, the HIV standard weight was standardized for men and women interviewed together so that the weight was unbiased (or representative) for women and men separately, as well as women and men together. If the men and women's weights are normalized separately, then the HIV prevalence level among the adult population would be biased. The following procedure shows the calculation of the HIV standard weight:

$_{HIV}n_{WF}$: In the men's subsample, the total number of eligible women found in all of the interviewed households in a given stratum,

$_{HIV}n_{WC}$: In the men's subsample, the total number of women completed the individual interview and the HIV testing and having a valid test results (due to the special procedure of HIV testing, not all tested individuals has a valid test results) in all of the interviewed households in a given stratum,

$_{HIV}n_{MF}$: In the men's subsample, the total number of eligible men found in all of the interviewed households in a given stratum,

$_{HIV}n_{MC}$: In the men's subsample, the total number of men who completed the individual interview and the HIV testing and having a valid test results (due to the special procedure of HIV testing, not all tested individuals has a valid test results) in all of the interviewed households in a given stratum,

W_{hi}^{**} : The household standard weight for the male subsample.

Then the women's individual weight for HIV testing is calculated by :

$$_{HIV}W_{Whi} = W_{hi}^{**} \times \frac{_{HIV}n_{WF}}{_{HIV}n_{WC}}$$

Then the men's individual weight for HIV testing was calculated by :

$$_{HIV}W_{Mhi} = W_{hi}^{**} \times \frac{_{HIV}n_{MF}}{_{HIV}n_{MC}}$$

Women's standard weight for HIV testing was calculated by :

$$_{HIV}W_{Whi}^{*} = {}_{HIV}W_{Whi} \times \frac{\sum\sum\left(_{HIV}n_{WChi} + {}_{HIV}n_{MChi}\right)}{\sum\sum\left(_{HIV}W_{Whi} \times {}_{HIV}n_{WChi} + {}_{HIV}W_{Mhi} \times {}_{HIV}n_{MChi}\right)}$$

Men's standard weight for HIV testing was calculated by :

$$_{HIV}W_{Mhi}^{*} = {}_{HIV}W_{Mhi} \times \frac{\sum\sum\left(_{HIV}n_{WChi} + {}_{HIV}n_{MChi}\right)}{\sum\sum\left(_{HIV}W_{Whi} \times {}_{HIV}n_{WChi} + {}_{HIV}W_{Mhi} \times {}_{HIV}n_{MChi}\right)}$$

A.9 SPECIAL CONCERNS

As with all the DHS surveys, the target population for the women's survey consists of all women ages 15-49 living in ordinary households who slept in the household the night before the survey (this group is known as the de facto population). The target population for the male survey consists of all men ages 15-49 living in ordinary households who slept in the household the night before the survey. This special definition of target population aims to adapt to the special features of the DHS survey:. The data collection procedure lasts for three to six months without a fixed survey date. The de facto population is the most accessible population. The sampling unit is the structure which is identified as ordinary residence structure during the household listing operation, not the

specific household with the special household members living in the structure at the moment of household listing. With the structure as sampling unit, it does not matter whether the actual residents in a selected structure at the moment of the survey are the same as those who lived there at the time of household listing. This prevents sample loss caused by migration. It has other important advantages: the sampled households are located in a fixed place; it is possible to draw a geographical map showing the exact locations of the selected households (by using the maps produced in household listing); and these features assist teams in locating the selected households during data collection. As a result, it is easier to control the field work and to check the exactness of survey implementation. All these features can greatly reduce the nonsampling errors and possible bias, thus contributing to survey precision.

The methodology of the CDHS 2005 makes it possible to capture the migrant population. For the CDHS 2000, a village chief provided a list of households. The list may have included household heads who had migrated to other towns for work. The list also may not have included household heads who had recently migrated into the village. If a selected household had moved away, the sample size was reduced. In circumstances of the migrant population staying in ordinary households (structures used as residential households), migrants will be properly represented in the CDHS 2005 because the sample is drawn from a list of residential structures as the sampling unit, and the de facto population as the target population. De facto refers to those who slept in the selected household the night before the day of interview. Since there is no reason to believe that people who came to the selected household temporarily (non-usual members who slept in the household the night before the interview and are therefore de facto) are different from people who left the selected household temporarily to go somewhere else (usual members who did not sleep in the household the night before the interview and are therefore non de facto), it is safe to assume that the de facto population does not differ from the actual population. Thus, CDHS 2005 survey results are representative of the actual population, including the migrant population.

Table A.6 Sample implementation: women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and region, Cambodia 2005

Result	Residence		Province										See Table A.6 *Continued* for remaining Provinces and Number of women
	Urban	Rural	Banteay Mean Chey	Kampong Cham	Kampong Chhnang	Kampong Speu	Kampong Thom	Kandal	Kratie	Phnom Penh	Prey Veng	Pursat	
Selected households													
Completed (C)	94.3	94.8	92.5	93.4	96.8	97.7	95.5	94.4	95.1	92.2	96.5	92.3	
Household present but no competent respondent at home (HP)	0.9	0.8	0.4	0.4	0.6	0.3	1.2	0.6	1.7	0.9	0.7	0.0	
Postponed (P)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refused (R)	0.6	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.1	1.3	0.2	1.0	
Dwelling not found (DNF)	0.7	0.8	0.3	1.0	0.9	0.1	0.6	0.9	0.3	1.1	0.5	2.7	
Household absent (HA)	1.6	2.2	2.6	3.5	1.4	1.5	2.2	2.6	1.8	1.2	1.6	3.6	
Dwelling vacant/address not a dwelling (DV)	1.7	1.1	4.2	1.7	0.3	0.4	0.2	1.5	1.0	3.2	0.5	0.4	
Dwelling destroyed (DD)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of sampled households	3,288	11,758	783	828	792	796	816	800	772	748	824	783	
Household response rate (HRR)	97.7	98.1	99.2	98.5	98.5	99.6	97.9	98.4	97.9	96.5	98.5	96.1	
Eligible women													
Completed (EWC)	97.1	97.6	95.3	95.0	99.0	98.5	97.3	96.7	99.0	97.0	98.0	98.0	
Not at home (EWNH)	1.4	1.2	2.6	2.2	0.2	1.1	1.8	1.9	0.8	1.5	0.3	0.0	
Postponed (EWP)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refused (EWR)	0.8	0.3	0.6	1.6	0.0	0.1	0.2	0.4	0.1	1.1	0.0	0.1	
Partly completed (EWPC)	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	
Incapacitated (EWI)	0.5	0.7	1.0	1.2	0.7	0.2	0.5	0.8	0.1	0.3	1.0	0.3	
Other (EWO)	0.0	0.1	0.4	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.6	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of women	4,278	12,978	817	833	812	937	924	906	863	1,139	901	892	
Eligible women response rate (EWRR)	97.1	97.6	95.3	95.0	99.0	98.5	97.3	96.7	99.0	97.0	98.0	97.0	
Overall response rate (ORR)	94.8	95.8	94.6	93.5	97.5	98.1	95.2	95.2	96.8	93.6	96.5	94.6	

Table A.6—*Continued*

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and region, Cambodia 2005

Result	See Table A.6 for remaining Provinces and Urban and Rural	Province									
		Siem Reap	Svay Rieng	Takeo	Otdar Mean Chey	Battambang/ Krong Pailin	Kampot/ Krong Kep	Krong Preah Sihanouk/ Kaoh Kong	Preah Vihear/ Steung Treng	Mondol Kiri/ Rattanak Kiri	Total
Selected households											
Completed (C)		95.5	96.1	98.0	92.6	94.2	95.5	88.8	95.7	95.3	94.7
Household present but no competent respondent at home (HP)		0.3	0.6	0.3	1.5	1.0	1.9	2.6	0.5	0.6	0.8
Postponed (P)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)		0.1	0.1	0.1	0.1	0.1	0.1	1.0	0.4	0.2	0.3
Dwelling not found (DNF)		0.0	0.0	0.1	0.8	1.9	0.4	2.2	0.1	1.5	0.8
Household absent (HA)		1.9	2.9	0.6	4.4	2.1	1.8	2.0	1.7	0.6	2.1
Dwelling vacant/address not a dwelling (DV)		2.2	0.3	0.9	0.6	0.6	0.4	2.5	1.5	1.7	1.3
Dwelling destroyed (DD)		0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households		784	800	800	796	780	792	768	776	808	15,046
Household response rate (HRR)		99.6	99.2	99.5	97.5	96.8	97.5	93.8	98.9	97.6	98.0
Eligible women											
Completed (EWC)		98.1	98.2	98.2	97.7	97.2	96.3	97.5	98.4	97.0	97.5
Not at home (EWNH)		0.6	0.9	0.3	1.8	1.8	1.9	1.2	0.7	2.5	1.3
Postponed (EWP)		0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Refused (EWR)		0.6	0.0	0.3	0.1	0.1	0.4	0.6	0.3	0.1	0.4
Partly completed (EWPC)		0.0	0.1	0.0	0.1	0.0	0.1	0.4	0.2	0.1	0.1
Incapacitated (EWI)		0.4	0.7	1.1	0.3	0.8	1.1	0.4	0.3	0.3	0.6
Other (EWO)		0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women		992	843	904	970	1,066	907	829	887	892	17,256
Eligible women response rate (EWRR)		98.1	98.2	98.2	97.7	97.2	96.3	97.5	98.4	97.0	97.5
Overall response rate (ORR)		97.7	97.5	97.7	95.3	94.1	93.9	91.4	97.4	94.6	95.5

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as: ORR = HRR * EWRR/100

Table A.7 Sample implementation: men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall response rates, according to urban-rural residence and region, Cambodia 2005

Result	Residence		Province										See Table A.7 *Continued* for remaining Provinces and Number of men
	Urban	Rural	Banteay Mean Chey	Kampong Cham	Kampong Chhnang	Kampong Speu	Kampong Thom	Kandal	Kratie	Phnom Penh	Prey Veng	Pursat	
Selected households													
Completed (C)	94.0	94.8	93.9	91.5	96.7	97.7	96.1	94.3	96.1	90.6	95.9	92.8	
Household present but no competent respondent at home (HP)	1.0	0.8	0.8	0.5	0.3	0.5	0.7	0.5	0.8	0.3	0.5	0.0	
Postponed (P)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refused (R)	0.7	0.2	0.3	0.0	0.0	0.0	0.2	0.0	0.0	1.9	0.2	1.3	
Dwelling not found (DNF)	1.0	0.9	0.3	1.7	1.0	0.0	0.5	1.3	0.3	1.9	1.0	3.1	
Household absent (HA)	1.5	2.0	1.0	4.3	1.5	1.3	2.0	2.5	1.6	1.9	1.7	2.3	
Dwelling vacant/address not a dwelling (DV)	1.7	1.2	3.8	1.7	0.5	0.5	0.5	1.5	1.3	3.5	0.7	0.5	
Dwelling destroyed (DD)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of sampled households	1,642	5,879	391	414	396	398	408	400	387	374	412	391	
Household response rate (HRR)	97.2	98.0	98.7	97.4	98.7	99.5	98.5	98.2	98.9	95.8	98.3	95.5	
Eligible men													
Completed (EMC)	91.8	93.5	89.6	94.0	96.4	94.6	90.3	94.7	91.4	92.6	96.6	96.1	
Not at home (EMNH)	5.4	4.7	6.7	3.1	2.2	3.1	8.5	3.8	6.9	3.9	1.6	0.3	
Postponed (EMP)	0.1	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	
Refused (EMR)	2.0	0.8	2.1	1.4	0.6	1.6	0.5	0.8	0.9	3.1	0.9	2.5	
Partly completed (EMPC)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	
Incapacitated (EMI)	0.5	0.8	1.5	1.1	0.8	0.8	0.7	0.5	0.6	0.2	0.3	1.1	
Other (EMO)	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of men	1,728	5,501	328	351	358	387	401	397	347	457	320	355	
Eligible men response rate (EMRR)	91.8	93.5	89.6	94.0	96.4	94.6	90.3	94.7	91.4	92.6	96.6	96.1	
Overall response rate (ORR)	89.2	91.7	88.4	91.6	95.1	94.1	88.9	93.0	90.4	88.6	94.9	91.8	

Table A.7—*Continued*

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall response rates, according to urban-rural residence and region, Cambodia 2005

Result	See Table A.7 for Urban and Rural and remaining Provinces	Province									
		Siem Reap	Svay Rieng	Takeo	Otdar Mean Chey	Battambang/ Krong Pailin	Kampot/ Krong Kep	Krong Preah Sihanouk/ Kaoh Kong	Preah Vihear/ Steung Treng	Mondol Kiri/ Rattanak Kiri	Total
Selected households											
Completed (C)		95.7	96.8	98.8	92.0	93.6	95.7	89.8	94.6	94.8	94.6
Household present but no competent respondent at home (HP)		0.3	0.8	0.0	2.8	1.5	1.5	2.9	0.8	0.2	0.8
Postponed (P)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)		0.3	0.0	0.0	0.0	0.3	0.3	1.0	0.5	0.2	0.3
Dwelling not found (DNF)		0.0	0.0	0.3	0.3	1.8	0.3	2.4	0.0	1.7	0.9
Household absent (HA)		1.3	2.3	0.8	4.3	2.1	1.8	1.3	2.3	0.5	1.9
Dwelling vacant/address not a dwelling (DV)		2.6	0.3	0.3	0.8	0.8	0.5	1.8	1.8	2.5	1.3
Dwelling destroyed (DD)		0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households		392	400	400	398	390	396	382	388	404	7,521
Household response rate (HRR)		99.5	99.2	99.7	96.8	96.3	97.9	93.5	98.7	97.7	97.9
Eligible men											
Completed (EMC)		94.4	97.3	98.1	84.7	93.5	94.4	87.0	95.3	89.5	93.1
Not at home (EMNH)		3.8	2.1	0.0	14.6	4.5	4.2	11.1	1.9	8.5	4.9
Postponed (EMP)		0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1
Refused (EMR)		0.8	0.0	0.5	0.3	0.8	1.1	0.8	0.5	0.9	1.1
Partly completed (EMPC)		0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.1
Incapacitated (EMI)		0.8	0.5	1.2	0.5	0.5	0.3	0.8	0.5	0.9	0.7
Other (EMO)		0.3	0.0	0.2	0.0	0.5	0.0	0.0	1.6	0.0	0.2
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men		395	373	414	391	399	356	377	364	459	7,229
Eligible men response rate (EMRR)		94.4	97.3	98.1	84.7	93.5	94.4	87.0	95.3	89.5	93.1
Overall response rate (ORR)		93.9	96.6	97.8	82.0	90.0	92.4	81.3	94.0	87.5	91.1

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:

$$\frac{100 * EWC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$$

[3] The overall response rate (ORR) is calculated as: ORR = HRR * EMRR/100

Table A.8 Coverage of HIV testing among interviewed women by social and demographic characteristics

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Cambodia 2005

	Testing status					
Characteristic	DBS tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Total	Number of women
Marital status						
Never married	97.0	2.6	0.2	0.2	100.0	2,535
Ever had sex	100.0	0.0	0.0	0.0	100.0	7
Never had sex	97.0	2.7	0.2	0.2	100.0	2,528
Married/living together	97.6	2.1	0.1	0.2	100.0	5,155
Divorced or separated	98.7	1.3	0.0	0.0	100.0	375
Widowed	97.9	1.8	0.0	0.3	100.0	333
Ever had sexual intercourse						
Yes	97.7	2.0	0.1	0.2	100.0	5,867
No	97.0	2.6	0.2	0.2	100.0	2,529
Missing	100.0	0.0	0.0	0.0	100.0	2
Currently pregnant						
Pregnant	99.0	0.8	0.0	0.2	100.0	507
Not pregnant or not sure	97.4	2.3	0.1	0.2	100.0	7,891
Times slept away from home in past 12 months						
None	97.4	2.3	0.1	0.2	100.0	5,621
1-2	98.0	1.8	0.1	0.2	100.0	1,819
3-4	97.0	2.6	0.2	0.2	100.0	571
5+	97.0	3.0	0.0	0.0	100.0	370
Missing	100.0	0.0	0.0	0.0	100.0	17
Time away in past 12 months						
Away for more than one month	98.0	1.9	0.2	0.0	100.0	593
Away only for less than one month	97.6	2.2	0.0	0.2	100.0	2,165
Not away	97.4	2.3	0.1	0.2	100.0	5,630
Missing	100.0	0.0	0.0	0.0	100.0	10
Total	97.5	2.2	0.1	0.2	100.0	8,398

Table A.9 Coverage of HIV testing among interviewed men by social and demographic characteristics

Percent distribution of interviewed men 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Cambodia 2005

	Testing status					
Characteristic	DBS tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Total	Number of men
Marital status						
Never married	96.5	3.0	0.3	0.2	100.0	2,576
Ever had sex	93.8	5.4	0.6	0.3	100.0	354
Never had sex	96.9	2.6	0.3	0.2	100.0	2,222
Married/living together	96.9	2.6	0.3	0.2	100.0	4,003
Divorced or separated	98.3	1.7	0.0	0.0	100.0	116
Widowed	97.2	2.8	0.0	0.0	100.0	36
Ever had sexual intercourse						
Yes	96.7	2.8	0.3	0.2	100.0	4,499
No	96.9	2.6	0.3	0.2	100.0	2,222
Missing	100.0	0.0	0.0	0.0	100.0	10
Times slept away from home in past 12 months						
None	96.5	3.0	0.3	0.2	100.0	3,438
1-2	96.9	2.4	0.4	0.2	100.0	1,601
3-4	98.1	1.4	0.1	0.4	100.0	728
5+	96.7	2.9	0.1	0.2	100.0	953
Missing	90.9	9.1	0.0	0.0	100.0	11
Time away in past 12 months						
Away for more than one month	97.4	2.2	0.3	0.1	100.0	868
Away only for less than one month	97.0	2.4	0.2	0.3	100.0	2,418
Not away	96.5	3.0	0.3	0.2	100.0	3,445
Total	96.8	2.7	0.3	0.2	100.0	6,731

Table A.10 Coverage of HIV testing among interviewed women by sexual behavior characteristics

Percent distribution of interviewed women who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Cambodia 2005

Sexual behavior characteristic	Testing status: DBS tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Total	Number of women
Age at first sexual intercourse						
<16	97.1	2.5	0.0	0.4	100.0	483
16-17	98.7	1.2	0.1	0.1	100.0	1,188
18-19	97.9	1.9	0.1	0.1	100.0	1,566
20+	97.3	2.4	0.1	0.2	100.0	2,437
Missing	96.9	2.6	0.0	0.5	100.0	193
Higher-risk intercourse in past 12 months						
Had higher-risk intercourse	100.0	0.0	0.0	0.0	100.0	17
Had sexual intercourse, not higher risk	97.8	2.0	0.1	0.2	100.0	5,094
No sexual intercourse in past 12 months	97.1	2.5	0.1	0.3	100.0	756
Number of sexual partners in past 12 months						
0	97.3	2.3	0.1	0.3	100.0	753
1	97.8	2.0	0.1	0.2	100.0	5,098
2	100.0	0.0	0.0	0.0	100.0	7
3+	100.0	0.0	0.0	0.0	100.0	6
Missing	33.3	66.7	0.0	0.0	100.0	3
Number of higher-risk partners in past 12 months						
0	97.7	2.0	0.1	0.2	100.0	5,850
1	100.0	0.0	0.0	0.0	100.0	10
2	100.0	0.0	0.0	0.0	100.0	2
3+	100.0	0.0	0.0	0.0	100.0	5
Condom use						
Ever used a condom	96.4	3.3	0.0	0.3	100.0	394
Never used a condom	97.8	1.9	0.1	0.2	100.0	5,461
Missing	100.0	0.0	0.0	0.0	100.0	12
Condom use at last sexual intercourse in past 12 months						
Used condom	95.1	4.2	0.0	0.7	100.0	142
Did not use condom	97.9	1.9	0.1	0.1	100.0	4,965
No sexual intercourse in past 12 months	97.1	2.5	0.1	0.3	100.0	756
Missing	100.0	0.0	0.0	0.0	100.0	4
Number of lifetime partners						
1	97.7	2.1	0.1	0.2	100.0	5,283
2	98.5	1.5	0.0	0.0	100.0	526
3-4	96.7	0.0	0.0	3.3	100.0	30
5-9	100.0	0.0	0.0	0.0	100.0	1
10+	100.0	0.0	0.0	0.0	100.0	3
Missing	95.8	4.2	0.0	0.0	100.0	24
Prior HIV testing status						
Ever tested, got result	96.4	3.3	0.0	0.3	100.0	611
Ever tested, did not get result	98.3	1.7	0.0	0.0	100.0	58
Never tested	97.9	1.9	0.1	0.2	100.0	5,030
Missing	98.2	1.8	0.0	0.0	100.0	168
Condom use at last higher-risk intercourse in past 12 months						
Used condom	100.0	0.0	0.0	0.0	100.0	10
Did not use condom	100.0	0.0	0.0	0.0	100.0	7
No higher-risk intercourse/no sexual intercourse past 12 months	97.7	2.0	0.1	0.2	100.0	5,850
Condom use at first sex						
Used condom	100.0	0.0	0.0	0.0	100.0	42
Did not use condom	98.4	1.5	0.0	0.1	100.0	1,088
Missing	89.5	10.5	0.0	0.0	100.0	19
Total	97.7	2.0	0.1	0.2	100.0	5,867

Table A.11 Coverage of HIV testing among interviewed men by sexual behavior characteristics

Percent distribution of interviewed men who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Cambodia 2005

Sexual behavior characteristic	Testing status: DBS tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Total	Number of men
Age at first sexual intercourse						
<16	97.2	2.8	0.0	0.0	100.0	108
16-17	97.9	1.7	0.5	0.0	100.0	419
18-19	97.3	2.2	0.3	0.3	100.0	1,134
20+	96.3	3.2	0.3	0.2	100.0	2,836
Missing	100.0	0.0	0.0	0.0	100.0	2
Higher-risk intercourse in past 12 months						
Had higher-risk intercourse	94.5	4.8	0.4	0.4	100.0	524
Had sexual intercourse, not higher risk	97.0	2.5	0.3	0.2	100.0	3,746
No sexual intercourse in past 12 months	97.4	2.2	0.4	0.0	100.0	229
Number of sexual partners in past 12 months						
0	97.3	2.2	0.4	0.0	100.0	225
1	96.8	2.7	0.3	0.2	100.0	3,906
2	95.6	3.8	0.5	0.0	100.0	182
3+	94.5	4.4	0.6	0.6	100.0	181
Missing	100.0	0.0	0.0	0.0	100.0	5
Number of higher-risk partners in past 12 months						
0	97.0	2.5	0.3	0.2	100.0	3,975
1	94.9	4.5	0.3	0.3	100.0	292
2	93.4	5.9	0.0	0.7	100.0	152
3+	95.0	3.8	1.3	0.0	100.0	80
Condom use at last sexual intercourse in past 12 months						
Used condom	94.2	5.4	0.2	0.2	100.0	428
Did not use condom	97.0	2.5	0.3	0.2	100.0	3,841
No sexual intercourse in past 12 months	97.4	2.2	0.4	0.0	100.0	229
Missing	100.0	0.0	0.0	0.0	100.0	1
Paid for sexual intercourse in past 12 months						
Yes	94.6	4.5	0.6	0.3	100.0	354
Used condom	94.3	4.8	0.6	0.3	100.0	336
Did not use condom	100.0	0.0	0.0	0.0	100.0	18
No/no sexual intercourse in past 12 months	96.9	2.6	0.3	0.2	100.0	4,145
Number of lifetime partners						
1	97.2	2.3	0.3	0.2	100.0	2,622
2	97.4	2.0	0.2	0.4	100.0	545
3-4	96.9	2.9	0.0	0.2	100.0	487
5-9	96.7	3.3	0.0	0.0	100.0	395
10+	92.6	6.1	1.0	0.2	100.0	408
Missing	92.9	4.8	2.4	0.0	100.0	42
Prior HIV testing status						
Ever tested, got result	94.5	4.7	0.4	0.4	100.0	739
Ever tested, did not get result	90.4	8.4	1.2	0.0	100.0	83
Never tested	97.3	2.2	0.2	0.2	100.0	3,636
Missing	95.1	4.9	0.0	0.0	100.0	41
Condom use at last higher-risk intercourse in past 12 months						
Used condom	93.4	5.6	0.5	0.5	100.0	426
Did not use condom	99.0	1.0	0.0	0.0	100.0	98
No higher-risk intercourse/no sexual ntercourse past 12 months	97.0	2.5	0.3	0.2	100.0	3,975
Condom use at first sex						
Used condom	96.7	3.0	0.0	0.3	100.0	305
Did not use condom	97.5	1.5	0.4	0.6	100.0	471
Missing	90.0	10.0	0.0	0.0	100.0	10
Total	96.7	2.8	0.3	0.2	100.0	4,499

ESTIMATES OF SAMPLING ERRORS

Appendix B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2005 Cambodia Demographic and Health Survey (CDHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2005 CDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2005 CDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2005 CDHS is a Macro SAS procedure. This procedure used the Taylor linearization method for variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}\text{, and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the hth stratum,
y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum,
x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2005 CDHS, there were 557 non-empty clusters. Hence, 557 replications were created. The variance of a rate *r* is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 557 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 556 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the 2005 CDHS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 19 study domains. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.21 present the value of the statistic (R), its standard error (SE), the number of unweighted (N-UNWE) and weighted (N-WEIG) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women over age 40*) can be interpreted as follows: the overall average from the national sample is 4.927 and its standard error is 0.064. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 4.927±2×0.065. There is a high probability (95 percent) that the *true* average number of children ever born to all women over age 40 is between 4.799 and 5.054.

Sampling errors are analyzed for the national woman sample and for two separate groups of estimates: (1) means and proportions, and (2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 0.1 percent and 16.1 percent with an average of 3.1 percent; the highest relative standard errors are for estimates of very low values (e.g., *currently using condoms*). If estimates of very low values (less than 10 percent) were removed, then the average drops to 2.4 percent. So in general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. The relative standard error for the total fertility rate is small, 2.3 percent. However, for the mortality rates, the average relative standard error is much higher, 7.4 percent.

There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *want no more children*, the relative standard errors as a percent of the estimated mean for the whole country, and for the urban areas are 1.2 percent and 2.5 percent, respectively.

For the total sample, the value of the design effect (DEFT), averaged over all variables, is 1.39 which means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.39 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Cambodia 2005

Variable	Estimate	Base population
	WOMEN	
Urban residence	Proportion	All women 15-49
No schooling	Proportion	All women 15-49
Secondary and higher education	Proportion	All women 15-49
Never married (never in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Married before age 20	Proportion	Women 25-49
Had first sexual intercourse before age 18	Proportion	Women 25-49
Children ever born	Mean	All women 15-49
Children ever born to women over age 40	Mean	Women age 40-49
Children surviving	Mean	All women 15-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49
Currently using daily pill	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay at least 2 years	Proportion	Currently married women 15-49
Mothers received medical care at birth	Proportion	Births in past 5 years
Had diarrhea in past 2 weeks	Proportion	Children under 5
Treated with ORS packets	Proportion	Children under 5 with diarrhea in past 2 weeks
Consulted medical personnel for diarrhea	Proportion	Children under 5 with diarrhea in past 2 weeks
Having health card, seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Weight-for-height (<-2 SD)	Proportion	Children under 5 who were measured
Height-for-age (<-2 SD)	Proportion	Children under 5 who were measured
Weight-for-age (<-2 SD)	Proportion	Children under 5 who were measured
Total fertility rate (past 3 years)	Rate	Woman-years of exposure to childbearing
Neonatal mortality rate[1]	Rate	Number of births
Postneonatal mortality rate[1]	Rate	Number of births
Infant mortality rate[1]	Rate	Number of births
Child mortality rate[1]	Rate	Number of births
Under-five mortality rate[1]	Rate	Number of births
Experienced violence in past 12 months	Proportion	Ever-married women age 15-49
Maternal mortality rate[2] (past 0-6 years)	Rate	Woman-years of exposure
HIV prevalence	Proportion	All women 15-49 who were tested
	MEN	
Urban residence	Proportion	All men 15-49
No schooling	Proportion	All men 15-49
Secondary and higher education	Proportion	All men 15-49
Never married (never in union)	Proportion	All men 15-49
Currently married (in union)	Proportion	All men 15-49
Married before age 20	Proportion	All men 25-49
Had first sexual intercourse before age 18	Proportion	All men 25-49
HIV prevalence	Proportion	All men 15-49 who were tested

[1] The mortality rates are calculated for past 5 years for the total sample, and 10 years for the urban, rural and the regional samples.
[2] The maternal mortality rate is calculated just for the total sample since the regional sample sizes are not big enough for a precise estimation.

Table B.2 Sampling errors for national sample, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.177	0.004	16823	16823	1.439	0.024	0.168	0.185
No schooling	0.194	0.006	16823	16823	2.064	0.032	0.182	0.207
Secondary or higher education	0.248	0.008	16823	16823	2.437	0.033	0.231	0.264
Never married (never in union)	0.318	0.005	16823	16823	1.286	0.015	0.309	0.327
Currently married (in union)	0.600	0.005	16823	16823	1.343	0.008	0.589	0.610
Married before age 20	0.486	0.007	10157	10177	1.364	0.014	0.473	0.500
Had first sexual intercourse before age 18	0.214	0.006	10157	10177	1.405	0.027	0.203	0.225
Children ever born	2.308	0.028	16823	16823	1.426	0.012	2.252	2.364
Children ever born to women over age 40	4.927	0.064	3771	3815	1.408	0.013	4.799	5.054
Children surviving	2.011	0.023	16823	16823	1.393	0.012	1.965	2.058
Knowing any contraceptive method	0.994	0.001	10309	10087	1.287	0.001	0.991	0.996
Knowing any modern contraceptive method	0.993	0.001	10309	10087	1.279	0.001	0.991	0.995
Ever used any contraceptive method	0.634	0.008	10309	10087	1.606	0.012	0.618	0.649
Currently using any method	0.400	0.007	10309	10087	1.441	0.017	0.386	0.414
Currently using a modern method	0.272	0.007	10309	10087	1.575	0.025	0.258	0.285
Currently using daily pill	0.110	0.004	10309	10087	1.423	0.040	0.102	0.119
Currently using condom	0.029	0.002	10309	10087	1.174	0.067	0.025	0.033
Want no more children	0.572	0.007	10306	10084	1.366	0.012	0.559	0.585
Want to delay at least 2 years	0.231	0.005	10306	10084	1.196	0.022	0.221	0.240
Mothers received medical care at birth	0.438	0.013	8290	7789	2.007	0.030	0.412	0.464
Had diarrhea in the past 2 weeks	0.195	0.006	7695	7271	1.214	0.030	0.184	0.207
Treated with ORS packets	0.211	0.014	1450	1420	1.235	0.065	0.183	0.238
Consulted medical personnel for diarrhea	0.370	0.017	1450	1420	1.289	0.046	0.335	0.404
Having health card, seen	0.667	0.016	1585	1517	1.335	0.024	0.635	0.699
Received BCG vaccination	0.914	0.010	1585	1517	1.350	0.011	0.895	0.933
Received DPT vaccination (3 doses)	0.783	0.014	1585	1517	1.282	0.017	0.755	0.810
Received polio vaccination (3 doses)	0.769	0.014	1585	1517	1.333	0.019	0.741	0.798
Received measles vaccination	0.769	0.014	1585	1517	1.295	0.018	0.741	0.797
Fully immunized	0.666	0.016	1585	1517	1.319	0.024	0.634	0.698
Height-for-age (below -2SD)	0.373	0.011	3812	3587	1.339	0.030	0.350	0.395
Weight-for-height (below -2SD)	0.073	0.005	3812	3587	1.213	0.074	0.062	0.084
Weight-for-age (below -2SD)	0.356	0.010	3812	3587	1.197	0.028	0.336	0.376
Total fertility rate (past 3 years)	3.403	0.077	na	46822	1.636	0.023	3.249	3.557
Neonatal mortality (0-4 years)	28.441	2.349	8377	7875	1.174	0.083	23.743	33.140
Post-neonatal mortality (0-4 years)	37.207	3.102	8406	7901	1.316	0.083	31.002	43.412
Infant mortality (0-4 years)	65.648	3.762	8407	7902	1.247	0.057	58.125	73.172
Child mortality (0-4 years)	18.889	1.822	8452	7934	1.174	0.096	15.245	22.533
Under-five mortality (0-4 years)	83.298	4.222	8483	7962	1.281	0.051	74.854	91.741
Experienced violence in past 12 months	0.103	0.008	2294	2037	1.280	0.079	0.087	0.119
Maternal mortality rate (past 0-6 years)	472	67	na	na	na	0.142	338	605
HIV positive	0.006	0.001	8188	8047	1.141	0.161	0.004	0.008
MEN								
Urban residence	0.168	0.005	6731	6731	1.113	0.030	0.158	0.179
No schooling	0.090	0.005	6731	6731	1.506	0.058	0.079	0.101
Secondary or higher education	0.426	0.011	6731	6731	1.785	0.025	0.404	0.447
Never married (never in union)	0.387	0.008	6731	6731	1.311	0.020	0.372	0.403
Currently married (in union)	0.590	0.008	6731	6731	1.288	0.013	0.575	0.606
Married before age 20	0.285	0.008	3839	3847	1.156	0.030	0.268	0.301
Had first sexual intercourse before age 18	0.089	0.007	3830	3840	1.497	0.077	0.076	0.103
HIV positive	0.006	0.001	6514	6656	1.439	0.225	0.003	0.009

na = Not applicable

Table B.3 Sampling errors for urban sample, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	1.000	0.000	4152	2973	na	0.000	1.000	1.000
No schooling	0.128	0.009	4152	2973	1.817	0.074	0.109	0.146
Secondary or higher education	0.428	0.021	4152	2973	2.759	0.050	0.386	0.471
Never married (never in union)	0.392	0.010	4152	2973	1.330	0.026	0.372	0.412
Currently married (in union)	0.529	0.010	4152	2973	1.313	0.019	0.508	0.549
Married before age 20	0.436	0.018	2392	1655	1.734	0.040	0.401	0.471
Had first sexual intercourse before age 18	0.187	0.014	2392	1655	1.773	0.076	0.159	0.215
Children ever born	1.753	0.059	4152	2973	1.712	0.034	1.635	1.870
Children ever born to women over age 40	4.175	0.151	880	597	1.730	0.036	3.873	4.477
Children surviving	1.581	0.045	4152	2973	1.489	0.028	1.492	1.670
Knowing any contraceptive method	0.999	0.000	2344	1572	0.679	0.000	0.998	1.000
Knowing any modern contraceptive method	0.999	0.000	2344	1572	0.679	0.000	0.998	1.000
Ever used any contraceptive method	0.748	0.015	2344	1572	1.704	0.020	0.717	0.778
Currently using any method	0.494	0.013	2344	1572	1.250	0.026	0.469	0.520
Currently using a modern method	0.306	0.013	2344	1572	1.404	0.044	0.280	0.333
Currently using daily pill	0.105	0.010	2344	1572	1.530	0.092	0.086	0.125
Currently using condom	0.062	0.006	2344	1572	1.283	0.103	0.049	0.075
Want no more children	0.589	0.015	2343	1571	1.431	0.025	0.560	0.618
Want to delay at least 2 years	0.231	0.009	2343	1571	1.057	0.040	0.213	0.250
Mothers received medical care at birth	0.701	0.028	1705	1093	2.009	0.040	0.646	0.757
Had diarrhea in the past 2 weeks	0.163	0.012	1597	1038	1.182	0.072	0.140	0.187
Treated with ORS packets	0.262	0.030	275	169	1.002	0.114	0.202	0.322
Consulted medical personnel for diarrhea	0.281	0.046	275	169	1.486	0.163	0.190	0.372
Having health card, seen	0.631	0.035	331	215	1.281	0.056	0.561	0.701
Received BCG vaccination	0.919	0.019	331	215	1.256	0.021	0.880	0.957
Received DPT vaccination (3 doses)	0.768	0.031	331	215	1.264	0.040	0.707	0.830
Received polio vaccination (3 doses)	0.777	0.031	331	215	1.275	0.040	0.715	0.838
Received measles vaccination	0.791	0.031	331	215	1.310	0.039	0.729	0.853
Fully immunized	0.694	0.031	331	215	1.168	0.044	0.632	0.755
Height-for-age (below -2SD)	0.305	0.033	773	486	1.739	0.107	0.240	0.370
Weight-for-height (below -2SD)	0.083	0.016	773	486	1.543	0.187	0.052	0.114
Weight-for-age (below -2SD)	0.347	0.027	773	486	1.404	0.078	0.293	0.401
Total fertility rate (past 3 years)	2.793	0.171	na	8267	1.849	0.061	2.450	3.135
Neonatal mortality (0-9 years)	28.648	4.261	3549	2210	1.241	0.149	20.125	37.171
Post-neonatal mortality (0-9 years)	36.074	4.668	3551	2210	1.161	0.129	26.738	45.410
Infant mortality (0-9 years)	64.722	5.985	3551	2210	1.161	0.092	52.753	76.691
Child mortality (0-9 years)	11.744	2.235	3568	2216	1.095	0.190	7.274	16.214
Under-five mortality (0-9 years)	75.706	6.707	3570	2217	1.241	0.089	62.292	89.120
Experienced violence in past 12 months	0.072	0.012	487	302	1.005	0.164	0.048	0.095
HIV positive	0.013	0.003	2001	1426	1.297	0.250	0.007	0.020
MEN								
Urban residence	1.000	0.000	1586	1133	0.000	0.000	1.000	1.000
No schooling	0.047	0.007	1586	1133	1.354	0.154	0.032	0.061
Secondary or higher education	0.646	0.018	1586	1133	1.487	0.028	0.610	0.682
Never married (never in union)	0.444	0.021	1586	1133	1.712	0.048	0.401	0.487
Currently married (in union)	0.525	0.022	1586	1133	1.778	0.042	0.481	0.570
Married before age 20	0.172	0.017	893	624	1.351	0.099	0.138	0.207
Had first sexual intercourse before age 18	0.072	0.012	892	624	1.372	0.165	0.048	0.096
HIV positive	0.016	0.006	1487	1124	1.885	0.388	0.003	0.028

na = Not applicable

Table B.4 Sampling errors for rural sample, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.000	0.000	12671	13850	na	na	0.000	0.000
No schooling	0.209	0.007	12671	13850	2.038	0.035	0.194	0.223
Secondary or higher education	0.209	0.009	12671	13850	2.438	0.042	0.191	0.226
Never married (never in union)	0.302	0.005	12671	13850	1.290	0.017	0.292	0.313
Currently married (in union)	0.615	0.006	12671	13850	1.347	0.009	0.603	0.626
Married before age 20	0.496	0.007	7765	8522	1.297	0.015	0.482	0.511
Had first sexual intercourse before age 18	0.219	0.006	7765	8522	1.335	0.029	0.207	0.232
Children ever born	2.427	0.032	12671	13850	1.384	0.013	2.363	2.490
Children ever born to women over age 40	5.066	0.070	2891	3218	1.348	0.014	4.926	5.206
Children surviving	2.104	0.027	12671	13850	1.365	0.013	2.050	2.157
Knowing any contraceptive method	0.993	0.001	7965	8515	1.248	0.001	0.990	0.995
Knowing any modern contraceptive method	0.992	0.001	7965	8515	1.239	0.001	0.990	0.995
Ever used any contraceptive method	0.613	0.008	7965	8515	1.544	0.014	0.596	0.629
Currently using any method	0.383	0.008	7965	8515	1.450	0.021	0.367	0.398
Currently using a modern method	0.265	0.008	7965	8515	1.580	0.029	0.250	0.281
Currently using daily pill	0.111	0.005	7965	8515	1.386	0.044	0.102	0.121
Currently using condom	0.023	0.002	7965	8515	1.195	0.088	0.019	0.027
Want no more children	0.569	0.007	7963	8512	1.337	0.013	0.554	0.584
Want to delay at least 2 years	0.230	0.006	7963	8512	1.192	0.024	0.219	0.242
Mothers received medical care at birth	0.395	0.015	6585	6696	2.019	0.037	0.366	0.424
Had diarrhea in the past 2 weeks	0.201	0.007	6098	6233	1.195	0.032	0.188	0.214
Treated with ORS packets	0.204	0.015	1175	1251	1.231	0.074	0.174	0.234
Consulted medical personnel for diarrhea	0.382	0.018	1175	1251	1.232	0.048	0.345	0.418
Having health card, seen	0.673	0.018	1254	1302	1.314	0.026	0.637	0.709
Received BCG vaccination	0.913	0.011	1254	1302	1.331	0.012	0.892	0.935
Received DPT vaccination (3 doses)	0.785	0.015	1254	1302	1.264	0.019	0.755	0.815
Received polio vaccination (3 doses)	0.768	0.016	1254	1302	1.316	0.021	0.736	0.800
Received measles vaccination	0.766	0.016	1254	1302	1.274	0.020	0.734	0.797
Fully immunized	0.662	0.018	1254	1302	1.312	0.027	0.626	0.697
Height-for-age (below -2SD)	0.383	0.012	3039	3101	1.284	0.032	0.359	0.407
Weight-for-height (below -2SD)	0.071	0.006	3039	3101	1.154	0.080	0.060	0.083
Weight-for-age (below -2SD)	0.357	0.011	3039	3101	1.155	0.030	0.335	0.379
Total fertility rate (past 3 years)	3.538	0.084	na	38555	1.545	0.024	3.369	3.707
Neonatal mortality (0-9 years)	37.447	2.335	14010	14266	1.231	0.062	32.777	42.117
Post-neonatal mortality (0-9 years)	54.285	3.082	14035	14290	1.385	0.057	48.121	60.450
Infant mortality (0-9 years)	91.732	3.938	14036	14291	1.362	0.043	83.855	99.609
Child mortality (0-9 years)	21.217	1.501	14080	14327	1.123	0.071	18.216	24.218
Under-five mortality (0-9 years)	111.003	4.188	14107	14353	1.339	0.038	102.627	119.378
Experienced violence in past 12 months	0.108	0.009	1807	1735	1.267	0.086	0.090	0.127
HIV positive	0.005	0.001	6187	6622	1.101	0.207	0.003	0.006
MEN								
Urban residence	0.000	0.000	5145	5598	na	na	0.000	0.000
No schooling	0.099	0.006	5145	5598	1.478	0.062	0.086	0.111
Secondary or higher education	0.381	0.012	5145	5598	1.827	0.032	0.356	0.406
Never married (never in union)	0.376	0.008	5145	5598	1.222	0.022	0.359	0.392
Currently married (in union)	0.603	0.008	5145	5598	1.183	0.013	0.587	0.620
Married before age 20	0.306	0.009	2946	3223	1.113	0.031	0.287	0.325
Had first sexual intercourse before age 18	0.093	0.008	2938	3217	1.477	0.085	0.077	0.109
HIV positive	0.004	0.001	5027	5532	1.229	0.262	0.002	0.007

na = Not applicable

Table B.5 Sampling errors for Banteay Mean Chey province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.188	0.023	779	650	1.644	0.123	0.142	0.234
No schooling	0.247	0.021	779	650	1.369	0.086	0.205	0.290
Secondary or higher education	0.164	0.028	779	650	2.111	0.171	0.108	0.220
Never married (never in union)	0.289	0.020	779	650	1.237	0.070	0.249	0.329
Currently married (in union)	0.665	0.023	779	650	1.361	0.035	0.619	0.711
Married before age 20	0.482	0.016	480	402	0.719	0.034	0.449	0.515
Had first sexual intercourse before age 18	0.202	0.023	480	402	1.235	0.112	0.157	0.248
Children ever born	2.572	0.127	779	650	1.327	0.049	2.318	2.827
Children ever born to women over age 40	5.511	0.313	171	144	1.458	0.057	4.885	6.137
Children surviving	2.235	0.118	779	650	1.425	0.053	1.998	2.472
Knowing any contraceptive method	0.997	0.002	507	432	1.118	0.002	0.993	1.000
Knowing any modern contraceptive method	0.997	0.002	507	432	1.118	0.002	0.993	1.000
Ever used any contraceptive method	0.692	0.034	507	432	1.636	0.049	0.625	0.759
Currently using any method	0.369	0.041	507	432	1.914	0.112	0.286	0.451
Currently using a modern method	0.329	0.041	507	432	1.938	0.123	0.248	0.410
Currently using daily pill	0.166	0.027	507	432	1.612	0.161	0.112	0.219
Currently using condom	0.021	0.007	507	432	1.032	0.310	0.008	0.035
Want no more children	0.614	0.019	507	432	0.868	0.031	0.576	0.652
Want to delay at least 2 years	0.227	0.026	507	432	1.384	0.114	0.175	0.278
Mothers received medical care at birth	0.331	0.060	402	334	2.194	0.182	0.211	0.451
Had diarrhea in the past 2 weeks	0.223	0.029	382	316	1.321	0.132	0.164	0.282
Treated with ORS packets	0.214	0.043	81	70	0.946	0.202	0.128	0.300
Consulted medical personnel for diarrhea	0.335	0.050	81	70	0.949	0.149	0.235	0.435
Having health card, seen	0.587	0.059	85	73	1.108	0.101	0.469	0.705
Received BCG vaccination	0.942	0.046	85	73	1.811	0.049	0.850	1.000
Received DPT vaccination (3 doses)	0.881	0.059	85	73	1.691	0.067	0.763	0.999
Received polio vaccination (3 doses)	0.873	0.064	85	73	1.776	0.073	0.745	1.000
Received measles vaccination	0.789	0.051	85	73	1.148	0.064	0.688	0.890
Fully immunized	0.777	0.049	85	73	1.097	0.063	0.679	0.876
Height-for-age (below -2SD)	0.341	0.049	181	145	1.279	0.143	0.243	0.439
Weight-for-height (below -2SD)	0.055	0.015	181	145	0.878	0.275	0.025	0.085
Weight-for-age (below -2SD)	0.276	0.028	181	145	0.820	0.100	0.221	0.331
Total fertility rate (past 3 years)	3.798	0.300	na	1815	1.511	0.079	3.198	4.398
Neonatal mortality (0-9 years)	34.133	10.987	841	696	1.281	0.322	12.159	56.106
Post-neonatal mortality (0-9 years)	41.774	9.251	841	696	1.144	0.221	23.273	60.276
Infant mortality (0-9 years)	75.907	12.680	841	696	1.102	0.167	50.546	101.267
Child mortality (0-9 years)	22.023	5.478	846	699	0.978	0.249	11.067	32.979
Under-five mortality (0-9 years)	96.258	15.371	846	699	1.218	0.160	65.516	127.000
Experienced violence in past 12 months	0.156	0.052	113	83	1.507	0.334	0.052	0.260
HIV positive	0.007	0.004	391	319	0.863	0.526	0.000	0.014
MEN								
Urban residence	0.173	0.030	294	253	1.363	0.174	0.113	0.233
No schooling	0.094	0.023	294	253	1.359	0.246	0.048	0.141
Secondary or higher education	0.304	0.036	294	253	1.324	0.117	0.233	0.376
Never married (never in union)	0.352	0.031	294	253	1.096	0.087	0.291	0.413
Currently married (in union)	0.640	0.030	294	253	1.082	0.047	0.579	0.701
Married before age 20	0.236	0.036	174	153	1.128	0.154	0.164	0.309
Had first sexual intercourse before age 18	0.077	0.021	174	153	1.046	0.275	0.035	0.120
HIV positive	0.007	0.005	280	252	0.953	0.682	0.000	0.016

na = Not applicable

Table B.6 Sampling errors for Kampong Cham province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.026	0.007	791	2116	1.245	0.272	0.012	0.040
No schooling	0.226	0.028	791	2116	1.860	0.123	0.170	0.281
Secondary or higher education	0.172	0.025	791	2116	1.884	0.147	0.122	0.223
Never married (never in union)	0.292	0.019	791	2116	1.155	0.064	0.255	0.329
Currently married (in union)	0.606	0.023	791	2116	1.332	0.038	0.560	0.652
Married before age 20	0.471	0.027	498	1328	1.216	0.058	0.416	0.525
Had first sexual intercourse before age 18	0.148	0.017	498	1328	1.074	0.116	0.114	0.182
Children ever born	2.282	0.107	791	2116	1.209	0.047	2.068	2.496
Children ever born to women over age 40	4.553	0.244	181	478	1.116	0.054	4.064	5.041
Children surviving	1.974	0.096	791	2116	1.300	0.049	1.782	2.166
Knowing any contraceptive method	0.994	0.004	479	1282	1.242	0.004	0.986	1.000
Knowing any modern contraceptive method	0.994	0.004	479	1282	1.242	0.004	0.986	1.000
Ever used any contraceptive method	0.624	0.022	479	1282	0.972	0.035	0.581	0.667
Currently using any method	0.373	0.024	479	1282	1.097	0.065	0.325	0.422
Currently using a modern method	0.227	0.029	479	1282	1.520	0.128	0.169	0.285
Currently using daily pill	0.080	0.016	479	1282	1.294	0.201	0.048	0.112
Currently using condom	0.035	0.008	479	1282	0.926	0.222	0.020	0.051
Want no more children	0.495	0.031	479	1282	1.334	0.062	0.434	0.556
Want to delay at least 2 years	0.260	0.020	479	1282	1.014	0.078	0.220	0.301
Mothers received medical care at birth	0.458	0.052	343	929	1.748	0.113	0.354	0.562
Had diarrhea in the past 2 weeks	0.300	0.014	325	880	0.533	0.047	0.272	0.328
Treated with ORS packets	0.116	0.034	96	264	1.058	0.295	0.048	0.184
Consulted medical personnel for diarrhea	0.396	0.052	96	264	0.990	0.132	0.291	0.501
Having health card, seen	0.720	0.069	73	194	1.309	0.096	0.581	0.858
Received BCG vaccination	0.912	0.043	73	194	1.288	0.047	0.826	0.998
Received DPT vaccination (3 doses)	0.836	0.053	73	194	1.206	0.063	0.731	0.941
Received polio vaccination (3 doses)	0.803	0.050	73	194	1.065	0.062	0.703	0.903
Received measles vaccination	0.723	0.067	73	194	1.279	0.093	0.588	0.858
Fully immunized	0.676	0.058	73	194	1.056	0.086	0.559	0.792
Height-for-age (below -2SD)	0.372	0.048	153	400	1.213	0.129	0.276	0.467
Weight-for-height (below -2SD)	0.060	0.018	153	400	0.935	0.302	0.024	0.096
Weight-for-age (below -2SD)	0.331	0.042	153	400	1.117	0.127	0.247	0.415
Total fertility rate (past 3 years)	3.208	0.336	na	5932	1.520	0.105	2.535	3.881
Neonatal mortality (0-9 years)	34.775	9.236	737	2001	1.144	0.266	16.302	53.247
Post-neonatal mortality (0-9 years)	59.614	12.387	737	2001	1.232	0.208	34.840	84.388
Infant mortality (0-9 years)	94.389	13.841	737	2001	1.044	0.147	66.708	122.070
Child mortality (0-9 years)	18.199	5.160	739	2008	1.048	0.284	7.878	28.520
Under-five mortality (0-9 years)	110.870	14.969	739	2008	1.034	0.135	80.933	140.807
Experienced violence in past 12 months	0.183	0.035	106	265	0.927	0.191	0.113	0.253
HIV positive	0.005	0.003	396	1051	0.920	0.634	0.000	0.012
MEN								
Urban residence	0.021	0.004	330	870	0.451	0.171	0.014	0.028
No schooling	0.134	0.026	330	870	1.387	0.195	0.082	0.186
Secondary or higher education	0.310	0.030	330	870	1.185	0.097	0.250	0.371
Never married (never in union)	0.341	0.027	330	870	1.029	0.079	0.287	0.394
Currently married (in union)	0.641	0.024	330	870	0.916	0.038	0.592	0.689
Married before age 20	0.339	0.024	208	543	0.732	0.071	0.291	0.387
Had first sexual intercourse before age 18	0.076	0.021	208	543	1.162	0.283	0.033	0.118
HIV positive	0.006	0.004	324	862	0.908	0.644	0.000	0.014

na = Not applicable

Table B.7 Sampling errors for Kampong Chhnang province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.100	0.022	804	556	2.031	0.216	0.057	0.143
No schooling	0.128	0.019	804	556	1.620	0.150	0.089	0.166
Secondary or higher education	0.232	0.033	804	556	2.194	0.141	0.167	0.298
Never married (never in union)	0.306	0.014	804	556	0.835	0.044	0.279	0.333
Currently married (in union)	0.590	0.017	804	556	0.968	0.028	0.556	0.623
Married before age 20	0.377	0.020	508	350	0.949	0.054	0.337	0.418
Had first sexual intercourse before age 18	0.177	0.019	508	350	1.111	0.106	0.140	0.215
Children ever born	2.453	0.098	804	556	1.075	0.040	2.258	2.648
Children ever born to women over age 40	4.842	0.220	190	132	1.124	0.045	4.403	5.282
Children surviving	2.147	0.082	804	556	1.025	0.038	1.983	2.312
Knowing any contraceptive method	1.000	0.000	483	328	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	483	328	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.559	0.028	483	328	1.243	0.050	0.502	0.615
Currently using any method	0.342	0.019	483	328	0.874	0.055	0.304	0.380
Currently using a modern method	0.210	0.018	483	328	0.979	0.087	0.173	0.246
Currently using daily pill	0.081	0.018	483	328	1.424	0.219	0.045	0.116
Currently using condom	0.024	0.005	483	328	0.693	0.201	0.014	0.034
Want no more children	0.583	0.021	483	328	0.934	0.036	0.541	0.625
Want to delay at least 2 years	0.227	0.015	483	328	0.775	0.065	0.197	0.257
Mothers received medical care at birth	0.372	0.052	456	317	1.878	0.139	0.268	0.475
Had diarrhea in the past 2 weeks	0.169	0.026	420	293	1.416	0.156	0.116	0.222
Treated with ORS packets	0.296	0.057	71	49	1.039	0.192	0.183	0.410
Consulted medical personnel for diarrhea	0.442	0.086	71	49	1.391	0.194	0.270	0.614
Having health card, seen	0.687	0.073	89	63	1.500	0.107	0.540	0.833
Received BCG vaccination	0.967	0.020	89	63	1.079	0.021	0.927	1.000
Received DPT vaccination (3 doses)	0.855	0.041	89	63	1.112	0.048	0.773	0.937
Received polio vaccination (3 doses)	0.758	0.042	89	63	0.929	0.055	0.675	0.842
Received measles vaccination	0.845	0.043	89	63	1.124	0.051	0.759	0.930
Fully immunized	0.719	0.044	89	63	0.927	0.061	0.631	0.806
Height-for-age (below -2SD)	0.373	0.033	202	146	0.925	0.089	0.307	0.440
Weight-for-height (below -2SD)	0.046	0.017	202	146	1.038	0.361	0.013	0.080
Weight-for-age (below -2SD)	0.340	0.033	202	146	0.985	0.098	0.274	0.407
Total fertility rate (past 3 years)	4.290	0.264	na	1538	1.213	0.062	3.761	4.818
Neonatal mortality (0-9 years)	36.296	7.063	931	649	0.979	0.195	22.170	50.422
Post-neonatal mortality (0-9 years)	50.788	9.563	932	650	1.059	0.188	31.661	69.914
Infant mortality (0-9 years)	87.084	10.637	932	650	0.956	0.122	65.809	108.359
Child mortality (0-9 years)	15.273	4.924	936	651	1.107	0.322	5.425	25.121
Under-five mortality (0-9 years)	101.027	11.387	937	652	0.994	0.113	78.252	123.801
Experienced violence in past 12 months	0.096	0.028	131	78	1.096	0.294	0.040	0.153
HIV positive	0.012	0.007	404	264	1.263	0.578	0.000	0.025
MEN								
Urban residence	0.094	0.022	345	234	1.370	0.230	0.051	0.137
No schooling	0.039	0.013	345	234	1.214	0.325	0.014	0.064
Secondary or higher education	0.369	0.034	345	234	1.319	0.093	0.300	0.438
Never married (never in union)	0.394	0.035	345	234	1.320	0.088	0.324	0.463
Currently married (in union)	0.569	0.036	345	234	1.344	0.063	0.497	0.641
Married before age 20	0.239	0.028	193	130	0.927	0.119	0.182	0.295
Had first sexual intercourse before age 18	0.086	0.020	191	129	0.974	0.231	0.046	0.125
HIV positive	0.004	0.004	342	231	1.175	0.994	0.000	0.012

na = Not applicable

Table B.8 Sampling errors for Kampong Speu province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.090	0.008	923	870	0.902	0.094	0.073	0.107
No schooling	0.214	0.028	923	870	2.036	0.129	0.159	0.269
Secondary or higher education	0.191	0.026	923	870	1.980	0.134	0.140	0.242
Never married (never in union)	0.278	0.016	923	870	1.104	0.059	0.245	0.310
Currently married (in union)	0.618	0.016	923	870	1.004	0.026	0.586	0.650
Married before age 20	0.497	0.021	563	539	1.016	0.043	0.454	0.540
Had first sexual intercourse before age 18	0.274	0.022	563	539	1.150	0.079	0.231	0.318
Children ever born	2.765	0.124	923	870	1.335	0.045	2.517	3.013
Children ever born to women over age 40	5.451	0.295	219	212	1.504	0.054	4.860	6.042
Children surviving	2.378	0.097	923	870	1.237	0.041	2.183	2.573
Knowing any contraceptive method	0.998	0.002	554	537	1.114	0.002	0.993	1.000
Knowing any modern contraceptive method	0.998	0.002	554	537	1.114	0.002	0.993	1.000
Ever used any contraceptive method	0.622	0.031	554	537	1.509	0.050	0.560	0.685
Currently using any method	0.354	0.020	554	537	1.006	0.058	0.313	0.395
Currently using a modern method	0.228	0.019	554	537	1.051	0.082	0.191	0.266
Currently using daily pill	0.115	0.018	554	537	1.356	0.160	0.078	0.151
Currently using condom	0.022	0.006	554	537	0.994	0.282	0.010	0.034
Want no more children	0.386	0.024	554	537	1.141	0.061	0.339	0.433
Want to delay at least 2 years	0.178	0.016	554	537	0.961	0.088	0.147	0.210
Mothers received medical care at birth	0.228	0.036	470	468	1.638	0.158	0.156	0.300
Had diarrhea in the past 2 weeks	0.164	0.023	436	433	1.259	0.142	0.117	0.210
Treated with ORS packets	0.188	0.052	68	71	1.145	0.278	0.083	0.293
Consulted medical personnel for diarrhea	0.189	0.050	68	71	1.081	0.267	0.088	0.290
Having health card, seen	0.768	0.059	84	82	1.274	0.076	0.650	0.885
Received BCG vaccination	0.991	0.008	84	82	0.832	0.008	0.975	1.000
Received DPT vaccination (3 doses)	0.939	0.029	84	82	1.118	0.031	0.881	0.997
Received polio vaccination (3 doses)	0.886	0.031	84	82	0.906	0.035	0.824	0.949
Received measles vaccination	0.890	0.054	84	82	1.571	0.060	0.783	0.997
Fully immunized	0.810	0.049	84	82	1.152	0.061	0.711	0.908
Height-for-age (below -2SD)	0.366	0.043	218	218	1.261	0.118	0.279	0.452
Weight-for-height (below -2SD)	0.076	0.015	218	218	0.871	0.203	0.045	0.107
Weight-for-age (below -2SD)	0.307	0.045	218	218	1.340	0.147	0.217	0.397
Total fertility rate (past 3 years)	3.732	0.248	na	2419	1.245	0.067	3.235	4.229
Neonatal mortality (0-9 years)	40.813	7.324	1010	1003	1.024	0.179	26.166	55.461
Post-neonatal mortality (0-9 years)	66.212	10.311	1014	1007	1.194	0.156	45.590	86.834
Infant mortality (0-9 years)	107.025	14.530	1014	1007	1.223	0.136	77.965	136.085
Child mortality (0-9 years)	16.744	4.458	1012	1005	1.037	0.266	7.827	25.660
Under-five mortality (0-9 years)	121.977	14.369	1016	1009	1.144	0.118	93.238	150.715
Experienced violence in past 12 months	0.108	0.039	133	106	1.428	0.359	0.030	0.185
HIV positive	0.002	0.002	454	415	1.036	0.992	0.000	0.007MEN
MEN								
Urban residence	0.084	0.009	366	348	0.651	0.112	0.065	0.103
No schooling	0.074	0.013	366	348	0.949	0.176	0.048	0.100
Secondary or higher education	0.383	0.043	366	348	1.679	0.112	0.297	0.468
Never married (never in union)	0.392	0.036	366	348	1.418	0.093	0.320	0.465
Currently married (in union)	0.600	0.036	366	348	1.401	0.060	0.528	0.672
Married before age 20	0.365	0.035	197	189	1.013	0.096	0.295	0.434
Had first sexual intercourse before age 18	0.111	0.022	197	189	1.001	0.203	0.066	0.156
HIV positive	0.002	0.002	360	342	0.755	0.998	0.000	0.005

na = Not applicable

Table B.9 Sampling errors for Kampong Thom province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.108	0.007	899	799	0.683	0.066	0.094	0.122
No schooling	0.161	0.028	899	799	2.262	0.173	0.105	0.217
Secondary or higher education	0.207	0.040	899	799	2.950	0.194	0.126	0.287
Never married (never in union)	0.306	0.013	899	799	0.860	0.043	0.280	0.333
Currently married (in union)	0.608	0.016	899	799	0.974	0.026	0.576	0.640
Married before age 20	0.443	0.018	570	504	0.868	0.041	0.407	0.479
Had first sexual intercourse before age 18	0.161	0.021	570	504	1.337	0.128	0.120	0.202
Children ever born	2.404	0.056	899	799	0.650	0.023	2.293	2.516
Children ever born to women over age 40	4.871	0.252	228	199	1.344	0.052	4.367	5.375
Children surviving	2.103	0.047	899	799	0.642	0.022	2.009	2.197
Knowing any contraceptive method	0.996	0.003	544	486	1.064	0.003	0.990	1.000
Knowing any modern contraceptive method	0.994	0.004	544	486	1.058	0.004	0.986	1.000
Ever used any contraceptive method	0.680	0.028	544	486	1.382	0.041	0.625	0.736
Currently using any method	0.484	0.028	544	486	1.323	0.059	0.427	0.541
Currently using a modern method	0.306	0.028	544	486	1.404	0.091	0.251	0.362
Currently using daily pill	0.138	0.019	544	486	1.290	0.138	0.100	0.176
Currently using condom	0.012	0.006	544	486	1.277	0.496	0.000	0.024
Want no more children	0.592	0.030	544	486	1.442	0.051	0.531	0.653
Want to delay at least 2 years	0.243	0.025	544	486	1.341	0.102	0.194	0.293
Mothers received medical care at birth	0.245	0.038	441	401	1.637	0.153	0.170	0.320
Had diarrhea in the past 2 weeks	0.250	0.028	406	369	1.208	0.111	0.194	0.305
Treated with ORS packets	0.158	0.053	103	92	1.338	0.334	0.053	0.264
Consulted medical personnel for diarrhea	0.203	0.034	103	92	0.814	0.169	0.134	0.271
Having health card, seen	0.632	0.062	99	90	1.290	0.098	0.509	0.756
Received BCG vaccination	0.877	0.037	99	90	1.130	0.042	0.803	0.951
Received DPT vaccination (3 doses)	0.671	0.049	99	90	1.048	0.073	0.573	0.769
Received polio vaccination (3 doses)	0.655	0.048	99	90	1.012	0.073	0.560	0.751
Received measles vaccination	0.671	0.042	99	90	0.906	0.063	0.587	0.756
Fully immunized	0.546	0.048	99	90	0.978	0.089	0.449	0.643
Height-for-age (below -2SD)	0.411	0.039	221	197	1.137	0.095	0.332	0.489
Weight-for-height (below -2SD)	0.034	0.012	221	197	1.005	0.353	0.010	0.059
Weight-for-age (below -2SD)	0.374	0.033	221	197	0.957	0.087	0.309	0.439
Total fertility rate (past 3 years)	3.682	0.293	na	2225	1.534	0.079	3.096	4.267
Neonatal mortality (0-9 years)	38.280	7.029	920	833	1.010	0.184	24.221	52.339
Post-neonatal mortality (0-9 years)	48.808	11.132	922	835	1.070	0.228	26.545	71.072
Infant mortality (0-9 years)	87.089	15.914	922	835	1.336	0.183	55.261	118.917
Child mortality (0-9 years)	20.403	4.787	922	835	1.078	0.235	10.829	29.976
Under-five mortality (0-9 years)	105.714	15.400	924	837	1.232	0.146	74.915	136.514
Experienced violence in past 12 months	0.113	0.037	123	98	1.288	0.328	0.039	0.186
HIV positive	0.005	0.003	460	398	0.855	0.558	0.000	0.011MEN
MEN								
Urban residence	0.127	0.014	362	331	0.776	0.107	0.099	0.154
No schooling	0.081	0.020	362	331	1.388	0.246	0.041	0.121
Secondary or higher education	0.284	0.046	362	331	1.925	0.162	0.192	0.375
Never married (never in union)	0.405	0.034	362	331	1.304	0.083	0.337	0.472
Currently married (in union)	0.580	0.033	362	331	1.272	0.057	0.513	0.646
Married before age 20	0.306	0.035	195	180	1.056	0.114	0.237	0.376
Had first sexual intercourse before age 18	0.067	0.019	193	178	1.080	0.291	0.028	0.106
HIV positive	0.009	0.005	346	327	1.004	0.558	0.000	0.020

na = Not applicable

Table B.10 Sampling errors for Kandal province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.061	0.005	876	1612	0.568	0.075	0.052	0.070
No schooling	0.121	0.020	876	1612	1.798	0.164	0.081	0.160
Secondary or higher education	0.341	0.029	876	1612	1.814	0.085	0.283	0.399
Never married (never in union)	0.342	0.018	876	1612	1.123	0.053	0.306	0.378
Currently married (in union)	0.576	0.016	876	1612	0.972	0.028	0.544	0.609
Married before age 20	0.470	0.016	529	977	0.717	0.033	0.439	0.501
Had first sexual intercourse before age 18	0.235	0.017	529	977	0.896	0.070	0.202	0.268
Children ever born	2.250	0.099	876	1612	1.153	0.044	2.052	2.449
Children ever born to women over age 40	5.070	0.233	203	375	1.188	0.046	4.605	5.536
Children surviving	1.984	0.077	876	1612	1.040	0.039	1.829	2.139
Knowing any contraceptive method	0.996	0.003	504	929	1.000	0.003	0.990	1.000
Knowing any modern contraceptive method	0.996	0.003	504	929	1.000	0.003	0.990	1.000
Ever used any contraceptive method	0.619	0.027	504	929	1.245	0.044	0.565	0.673
Currently using any method	0.398	0.029	504	929	1.322	0.073	0.341	0.456
Currently using a modern method	0.289	0.027	504	929	1.317	0.092	0.236	0.343
Currently using daily pill	0.102	0.019	504	929	1.377	0.183	0.064	0.139
Currently using condom	0.026	0.007	504	929	1.003	0.272	0.012	0.041
Want no more children	0.585	0.023	504	929	1.027	0.039	0.540	0.630
Want to delay at least 2 years	0.270	0.017	504	929	0.855	0.063	0.236	0.304
Mothers received medical care at birth	0.735	0.049	365	681	1.861	0.066	0.638	0.833
Had diarrhea in the past 2 weeks	0.172	0.025	339	635	1.145	0.142	0.123	0.221
Treated with ORS packets	0.296	0.048	57	109	0.793	0.161	0.201	0.392
Consulted medical personnel for diarrhea	0.562	0.069	57	109	1.016	0.123	0.424	0.699
Having health card, seen	0.830	0.053	65	119	1.127	0.064	0.724	0.935
Received BCG vaccination	0.954	0.027	65	119	1.030	0.028	0.900	1.000
Received DPT vaccination (3 doses)	0.897	0.043	65	119	1.145	0.048	0.811	0.984
Received polio vaccination (3 doses)	0.891	0.045	65	119	1.160	0.051	0.801	0.981
Received measles vaccination	0.811	0.057	65	119	1.168	0.070	0.697	0.925
Fully immunized	0.787	0.060	65	119	1.175	0.076	0.667	0.907
Height-for-age (below -2SD)	0.268	0.045	174	328	1.358	0.168	0.178	0.359
Weight-for-height (below -2SD)	0.115	0.023	174	328	1.026	0.203	0.068	0.162
Weight-for-age (below -2SD)	0.350	0.041	174	328	1.132	0.116	0.269	0.431
Total fertility rate (past 3 years)	3.089	0.237	na	4508	1.231	0.077	2.614	3.563
Neonatal mortality (0-9 years)	29.938	6.066	775	1449	0.953	0.203	17.806	42.070
Post-neonatal mortality (0-9 years)	54.729	12.478	777	1453	1.354	0.228	29.774	79.685
Infant mortality (0-9 years)	84.667	15.526	777	1453	1.439	0.183	53.615	115.720
Child mortality (0-9 years)	17.839	4.008	779	1456	0.857	0.225	9.824	25.855
Under-five mortality (0-9 years)	100.997	15.892	781	1460	1.370	0.157	69.213	132.780
Experienced violence in past 12 months	0.068	0.017	115	205	0.735	0.255	0.033	0.102
HIV positive	0.000	0.000	416	746	na	na	0.000	0.000
MEN								
Urban residence	0.063	0.007	376	682	0.578	0.115	0.048	0.077
No schooling	0.062	0.019	376	682	1.526	0.306	0.024	0.101
Secondary or higher education	0.547	0.044	376	682	1.714	0.081	0.459	0.635
Never married (never in union)	0.432	0.029	376	682	1.144	0.068	0.373	0.491
Currently married (in union)	0.554	0.029	376	682	1.122	0.052	0.496	0.611
Married before age 20	0.188	0.034	206	374	1.241	0.180	0.120	0.256
Had first sexual intercourse before age 18	0.059	0.023	205	372	1.385	0.388	0.013	0.105
HIV positive	0.006	0.004	367	675	1.051	0.713	0.000	0.014

na = Not applicable

Table B.11 Sampling errors for Kratie province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.320	0.014	854	331	0.903	0.045	0.291	0.349
No schooling	0.209	0.030	854	331	2.186	0.146	0.148	0.270
Secondary or higher education	0.238	0.022	854	331	1.484	0.091	0.195	0.282
Never married (never in union)	0.277	0.015	854	331	0.977	0.054	0.247	0.307
Currently married (in union)	0.662	0.016	854	331	0.976	0.024	0.631	0.694
Married before age 20	0.465	0.027	555	216	1.265	0.058	0.411	0.519
Had first sexual intercourse before age 18	0.197	0.019	555	216	1.133	0.097	0.158	0.235
Children ever born	2.553	0.107	854	331	1.175	0.042	2.339	2.766
Children ever born to women over age 40	4.981	0.244	199	77	1.166	0.049	4.492	5.470
Children surviving	2.180	0.076	854	331	0.998	0.035	2.028	2.331
Knowing any contraceptive method	0.973	0.018	561	219	2.647	0.019	0.936	1.000
Knowing any modern contraceptive method	0.973	0.018	561	219	2.647	0.019	0.936	1.000
Ever used any contraceptive method	0.614	0.040	561	219	1.926	0.065	0.534	0.693
Currently using any method	0.346	0.027	561	219	1.353	0.079	0.292	0.400
Currently using a modern method	0.201	0.017	561	219	1.013	0.085	0.166	0.235
Currently using daily pill	0.093	0.016	561	219	1.292	0.171	0.061	0.125
Currently using condom	0.033	0.006	561	219	0.845	0.194	0.020	0.046
Want no more children	0.550	0.018	561	219	0.874	0.033	0.513	0.587
Want to delay at least 2 years	0.261	0.017	561	219	0.893	0.064	0.228	0.294
Mothers received medical care at birth	0.286	0.036	488	194	1.465	0.125	0.215	0.357
Had diarrhea in the past 2 weeks	0.226	0.025	449	178	1.213	0.110	0.177	0.276
Treated with ORS packets	0.173	0.042	100	40	1.068	0.244	0.089	0.258
Consulted medical personnel for diarrhea	0.326	0.063	100	40	1.347	0.192	0.200	0.451
Having health card, seen	0.619	0.064	78	31	1.179	0.104	0.491	0.748
Received BCG vaccination	0.874	0.069	78	31	1.854	0.079	0.735	1.000
Received DPT vaccination (3 doses)	0.662	0.049	78	31	0.930	0.074	0.564	0.761
Received polio vaccination (3 doses)	0.641	0.062	78	31	1.143	0.096	0.518	0.764
Received measles vaccination	0.636	0.055	78	31	1.010	0.086	0.527	0.745
Fully immunized	0.531	0.060	78	31	1.068	0.113	0.411	0.651
Height-for-age (below -2SD)	0.371	0.042	251	100	1.322	0.112	0.288	0.454
Weight-for-height (below -2SD)	0.042	0.013	251	100	0.941	0.298	0.017	0.067
Weight-for-age (below -2SD)	0.355	0.028	251	100	0.910	0.079	0.298	0.411
Total fertility rate (past 3 years)	4.230	0.306	na	922	1.349	0.072	3.618	4.841
Neonatal mortality (0-9 years)	36.985	7.575	999	393	1.185	0.205	21.834	52.135
Post-neonatal mortality (0-9 years)	47.359	6.797	999	393	0.909	0.144	33.766	60.952
Infant mortality (0-9 years)	84.344	9.789	999	393	1.017	0.116	64.766	103.921
Child mortality (0-9 years)	34.031	11.091	1007	396	1.555	0.326	11.849	56.213
Under-five mortality (0-9 years)	115.505	12.474	1007	396	1.109	0.108	90.556	140.453
Experienced violence in past 12 months	0.085	0.027	112	40	1.033	0.322	0.030	0.139
HIV positive	0.002	0.002	435	160	1.010	1.005	0.000	0.007
MEN								
Urban residence	0.297	0.019	317	128	0.749	0.065	0.259	0.336
No schooling	0.126	0.030	317	128	1.603	0.238	0.066	0.186
Secondary or higher education	0.277	0.021	317	128	0.834	0.076	0.235	0.319
Never married (never in union)	0.340	0.027	317	128	1.026	0.080	0.286	0.395
Currently married (in union)	0.635	0.028	317	128	1.049	0.045	0.578	0.691
Married before age 20	0.208	0.027	209	85	0.944	0.128	0.155	0.261
Had first sexual intercourse before age 18	0.063	0.016	209	85	0.942	0.253	0.031	0.094
HIV positive	0.006	0.004	315	126	0.983	0.723	0.000	0.014

na = Not applicable

Table B.12 Sampling errors for Phnom Penh province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.587	0.026	1105	1896	1.729	0.044	0.535	0.638
No schooling	0.095	0.014	1105	1896	1.602	0.149	0.067	0.124
Secondary or higher education	0.483	0.032	1105	1896	2.155	0.067	0.418	0.548
Never married (never in union)	0.411	0.013	1105	1896	0.898	0.032	0.385	0.438
Currently married (in union)	0.499	0.016	1105	1896	1.089	0.033	0.466	0.532
Married before age 20	0.452	0.029	596	1019	1.404	0.063	0.395	0.509
Had first sexual intercourse before age 18	0.200	0.024	596	1019	1.438	0.118	0.153	0.247
Children ever born	1.514	0.093	1105	1896	1.567	0.061	1.328	1.699
Children ever born to women over age 40	3.808	0.228	211	354	1.423	0.060	3.351	4.264
Children surviving	1.382	0.068	1105	1896	1.315	0.049	1.247	1.517
Knowing any contraceptive method	1.000	0.000	550	946	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	550	946	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.822	0.024	550	946	1.480	0.029	0.774	0.870
Currently using any method	0.577	0.019	550	946	0.898	0.033	0.539	0.615
Currently using a modern method	0.316	0.023	550	946	1.170	0.074	0.269	0.362
Currently using daily pill	0.101	0.011	550	946	0.893	0.113	0.078	0.124
Currently using condom	0.078	0.011	550	946	0.973	0.143	0.056	0.100
Want no more children	0.586	0.026	550	946	1.214	0.044	0.535	0.637
Want to delay at least 2 years	0.247	0.017	550	946	0.917	0.068	0.214	0.281
Mothers received medical care at birth	0.860	0.053	349	614	2.452	0.062	0.753	0.966
Had diarrhea in the past 2 weeks	0.184	0.022	341	598	0.982	0.118	0.141	0.228
Treated with ORS packets	0.180	0.039	61	110	0.739	0.215	0.102	0.257
Consulted medical personnel for diarrhea	0.306	0.069	61	110	1.122	0.227	0.167	0.445
Having health card, seen	0.794	0.064	72	127	1.261	0.080	0.666	0.922
Received BCG vaccination	0.965	0.020	72	127	0.912	0.020	0.926	1.000
Received DPT vaccination (3 doses)	0.857	0.045	72	127	0.995	0.053	0.767	0.948
Received polio vaccination (3 doses)	0.857	0.050	72	127	1.104	0.059	0.757	0.958
Received measles vaccination	0.856	0.047	72	127	1.030	0.055	0.762	0.950
Fully immunized	0.809	0.048	72	127	0.972	0.060	0.713	0.905
Height-for-age (below -2SD)	0.223	0.063	162	282	1.650	0.282	0.097	0.348
Weight-for-height (below -2SD)	0.055	0.024	162	282	1.381	0.440	0.007	0.103
Weight-for-age (below -2SD)	0.212	0.057	162	282	1.595	0.270	0.098	0.326
Total fertility rate (past 3 years)	2.471	0.233	na	5304	1.373	0.094	2.004	2.937
Neonatal mortality (0-9 years)	24.395	9.646	681	1191	1.481	0.395	5.103	43.688
Post-neonatal mortality (0-9 years)	17.631	7.790	681	1191	1.267	0.442	2.050	33.212
Infant mortality (0-9 years)	42.026	11.276	681	1191	1.305	0.268	19.473	64.579
Child mortality (0-9 years)	10.272	4.930	683	1195	1.289	0.480	0.412	20.133
Under-five mortality (0-9 years)	51.867	13.842	683	1195	1.501	0.267	24.182	79.552
Experienced violence in past 12 months	0.071	0.021	111	188	0.844	0.291	0.029	0.112
HIV positive	0.015	0.005	512	899	0.952	0.341	0.005	0.025
MEN								
Urban residence	0.565	0.025	423	737	1.015	0.043	0.516	0.614
No schooling	0.030	0.008	423	737	0.911	0.252	0.015	0.045
Secondary or higher education	0.730	0.043	423	737	1.981	0.059	0.644	0.816
Never married (never in union)	0.469	0.031	423	737	1.278	0.066	0.407	0.531
Currently married (in union)	0.489	0.032	423	737	1.330	0.066	0.424	0.553
Married before age 20	0.159	0.026	219	387	1.066	0.166	0.106	0.212
Had first sexual intercourse before age 18	0.069	0.018	219	387	1.056	0.262	0.033	0.106
HIV positive	0.020	0.010	388	734	1.373	0.487	0.001	0.040

na = Not applicable

Table B.13 Sampling errors for Prey Veng province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.062	0.004	883	1395	0.518	0.068	0.053	0.070
No schooling	0.165	0.016	883	1395	1.310	0.099	0.132	0.198
Secondary or higher education	0.169	0.027	883	1395	2.159	0.162	0.114	0.223
Never married (never in union)	0.289	0.016	883	1395	1.080	0.057	0.256	0.322
Currently married (in union)	0.631	0.017	883	1395	1.031	0.027	0.597	0.664
Married before age 20	0.526	0.021	588	920	1.019	0.040	0.484	0.568
Had first sexual intercourse before age 18	0.234	0.024	588	920	1.360	0.102	0.187	0.282
Children ever born	2.324	0.096	883	1395	1.160	0.041	2.132	2.516
Children ever born to women over age 40	4.615	0.257	236	358	1.431	0.056	4.101	5.129
Children surviving	2.003	0.089	883	1395	1.237	0.045	1.824	2.182
Knowing any contraceptive method	1.000	0.000	558	880	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	0.998	0.002	558	880	1.049	0.002	0.994	1.000
Ever used any contraceptive method	0.611	0.029	558	880	1.412	0.048	0.553	0.669
Currently using any method	0.352	0.025	558	880	1.238	0.071	0.302	0.402
Currently using a modern method	0.245	0.024	558	880	1.337	0.100	0.196	0.294
Currently using daily pill	0.080	0.012	558	880	1.023	0.147	0.056	0.103
Currently using condom	0.014	0.004	558	880	0.775	0.275	0.006	0.022
Want no more children	0.686	0.026	558	880	1.310	0.038	0.635	0.738
Want to delay at least 2 years	0.179	0.018	558	880	1.102	0.100	0.143	0.215
Mothers received medical care at birth	0.280	0.042	384	618	1.614	0.150	0.196	0.364
Had diarrhea in the past 2 weeks	0.272	0.036	350	562	1.519	0.131	0.201	0.343
Treated with ORS packets	0.231	0.054	92	153	1.272	0.233	0.124	0.339
Consulted medical personnel for diarrhea	0.408	0.049	92	153	0.973	0.120	0.310	0.505
Having health card, seen	0.774	0.058	73	119	1.198	0.075	0.658	0.890
Received BCG vaccination	0.948	0.024	73	119	0.939	0.025	0.900	0.996
Received DPT vaccination (3 doses)	0.864	0.031	73	119	0.795	0.036	0.801	0.927
Received polio vaccination (3 doses)	0.837	0.037	73	119	0.860	0.044	0.764	0.911
Received measles vaccination	0.838	0.032	73	119	0.747	0.038	0.775	0.902
Fully immunized	0.685	0.063	73	119	1.179	0.093	0.559	0.812
Height-for-age (below -2SD)	0.383	0.049	158	262	1.204	0.128	0.285	0.481
Weight-for-height (below -2SD)	0.113	0.029	158	262	1.125	0.258	0.055	0.171
Weight-for-age (below -2SD)	0.413	0.040	158	262	1.008	0.097	0.333	0.493
Total fertility rate (past 3 years)	3.032	0.225	na	3917	1.292	0.074	2.581	3.483
Neonatal mortality (0-9 years)	52.397	8.758	809	1304	0.960	0.167	34.880	69.913
Post-neonatal mortality (0-9 years)	68.647	11.114	809	1304	1.181	0.162	46.418	90.876
Infant mortality (0-9 years)	121.043	15.299	809	1304	1.249	0.126	90.445	151.641
Child mortality (0-9 years)	24.953	6.784	814	1312	1.038	0.272	11.385	38.521
Under-five mortality (0-9 years)	142.976	16.901	814	1312	1.278	0.118	109.174	176.778
Experienced violence in past 12 months	0.158	0.036	129	165	1.107	0.226	0.087	0.230
HIV positive	0.007	0.004	438	694	0.989	0.556	0.000	0.015
MEN								
Urban residence	0.059	0.005	309	482	0.367	0.083	0.049	0.069
No schooling	0.050	0.012	309	482	0.961	0.237	0.027	0.074
Secondary or higher education	0.422	0.038	309	482	1.346	0.090	0.346	0.498
Never married (never in union)	0.344	0.024	309	482	0.900	0.071	0.296	0.393
Currently married (in union)	0.627	0.026	309	482	0.942	0.041	0.575	0.679
Married before age 20	0.396	0.039	188	290	1.078	0.097	0.319	0.473
Had first sexual intercourse before age 18	0.108	0.033	188	290	1.465	0.308	0.042	0.175
HIV positive	0.000	0.000	307	477	na	na	0.000	0.000

na = Not applicable

Table B.14 Sampling errors for Pursat province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.152	0.011	817	480	0.841	0.069	0.131	0.173
No schooling	0.246	0.028	817	480	1.883	0.115	0.189	0.303
Secondary or higher education	0.196	0.025	817	480	1.762	0.125	0.147	0.245
Never married (never in union)	0.356	0.021	817	480	1.224	0.058	0.315	0.397
Currently married (in union)	0.557	0.022	817	480	1.262	0.039	0.513	0.601
Married before age 20	0.518	0.024	444	257	1.014	0.047	0.469	0.566
Had first sexual intercourse before age 18	0.239	0.017	444	257	0.863	0.073	0.204	0.274
Children ever born	2.553	0.122	817	480	1.215	0.048	2.310	2.797
Children ever born to women over age 40	5.952	0.248	179	106	1.260	0.042	5.457	6.447
Children surviving	2.229	0.104	817	480	1.201	0.047	2.020	2.437
Knowing any contraceptive method	1.000	0.000	455	268	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	455	268	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.520	0.024	455	268	1.034	0.047	0.471	0.568
Currently using any method	0.323	0.031	455	268	1.401	0.095	0.262	0.385
Currently using a modern method	0.268	0.028	455	268	1.359	0.106	0.211	0.325
Currently using daily pill	0.101	0.019	455	268	1.338	0.188	0.063	0.138
Currently using condom	0.018	0.007	455	268	1.114	0.384	0.004	0.032
Want no more children	0.539	0.028	455	268	1.210	0.053	0.482	0.596
Want to delay at least 2 years	0.147	0.022	455	268	1.301	0.147	0.104	0.190
Mothers received medical care at birth	0.317	0.034	369	219	1.230	0.107	0.249	0.385
Had diarrhea in the past 2 weeks	0.248	0.021	345	205	0.874	0.083	0.207	0.289
Treated with ORS packets	0.459	0.057	84	51	0.983	0.124	0.345	0.573
Consulted medical personnel for diarrhea	0.453	0.065	84	51	1.112	0.144	0.322	0.583
Having health card, seen	0.470	0.076	72	43	1.297	0.161	0.318	0.622
Received BCG vaccination	0.873	0.033	72	43	0.850	0.038	0.807	0.939
Received DPT vaccination (3 doses)	0.773	0.041	72	43	0.842	0.053	0.690	0.855
Received polio vaccination (3 doses)	0.789	0.037	72	43	0.771	0.047	0.716	0.863
Received measles vaccination	0.773	0.048	72	43	0.975	0.062	0.678	0.869
Fully immunized	0.713	0.053	72	43	1.007	0.075	0.606	0.820
Height-for-age (below -2SD)	0.616	0.058	154	90	1.479	0.094	0.500	0.732
Weight-for-height (below -2SD)	0.170	0.048	154	90	1.547	0.281	0.075	0.266
Weight-for-age (below -2SD)	0.486	0.023	154	90	0.562	0.048	0.439	0.532
Total fertility rate (past 3 years)	3.863	0.337	na	1316	1.444	0.087	3.188	4.538
Neonatal mortality (0-9 years)	27.356	6.097	830	496	0.970	0.223	15.162	39.550
Post-neonatal mortality (0-9 years)	59.056	8.358	832	497	0.902	0.142	42.340	75.772
Infant mortality (0-9 years)	86.412	10.753	832	497	0.997	0.124	64.907	107.917
Child mortality (0-9 years)	20.926	5.497	831	496	1.067	0.263	9.931	31.920
Under-five mortality (0-9 years)	105.529	12.895	833	497	1.132	0.122	79.738	131.320
Experienced violence in past 12 months	0.164	0.040	107	53	1.117	0.246	0.083	0.244
HIV positive	0.007	0.004	379	222	0.927	0.576	0.000	0.015
MEN								
Urban residence	0.143	0.009	341	202	0.458	0.061	0.126	0.161
No schooling	0.137	0.030	341	202	1.595	0.218	0.077	0.197
Secondary or higher education	0.317	0.031	341	202	1.243	0.099	0.254	0.380
Never married (never in union)	0.420	0.015	341	202	0.563	0.036	0.390	0.450
Currently married (in union)	0.550	0.015	341	202	0.545	0.027	0.521	0.579
Married before age 20	0.290	0.032	179	104	0.946	0.111	0.226	0.355
Had first sexual intercourse before age 18	0.105	0.023	179	104	1.019	0.223	0.058	0.152
HIV positive	0.003	0.003	317	199	1.029	0.989	0.000	0.010

na = Not applicable

Table B.15 Sampling errors for Siem Reap province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.194	0.031	973	1200	2.437	0.160	0.132	0.256
No schooling	0.396	0.039	973	1200	2.454	0.097	0.319	0.474
Secondary or higher education	0.146	0.025	973	1200	2.201	0.171	0.096	0.196
Never married (never in union)	0.328	0.020	973	1200	1.299	0.060	0.288	0.367
Currently married (in union)	0.593	0.019	973	1200	1.232	0.033	0.554	0.631
Married before age 20	0.437	0.025	561	689	1.176	0.056	0.388	0.486
Had first sexual intercourse before age 18	0.170	0.017	561	689	1.074	0.100	0.136	0.204
Children ever born	2.346	0.111	973	1200	1.300	0.047	2.124	2.567
Children ever born to women over age 40	5.385	0.169	211	261	0.879	0.031	5.047	5.724
Children surviving	2.076	0.101	973	1200	1.359	0.049	1.873	2.278
Knowing any contraceptive method	1.000	0.000	575	711	na	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	575	711	na	0.000	1.000	1.000
Ever used any contraceptive method	0.465	0.040	575	711	1.912	0.086	0.385	0.545
Currently using any method	0.293	0.031	575	711	1.632	0.106	0.230	0.355
Currently using a modern method	0.202	0.019	575	711	1.105	0.092	0.165	0.239
Currently using daily pill	0.088	0.013	575	711	1.095	0.147	0.062	0.114
Currently using condom	0.038	0.005	575	711	0.678	0.143	0.027	0.048
Want no more children	0.511	0.025	574	710	1.190	0.049	0.461	0.561
Want to delay at least 2 years	0.290	0.019	574	710	1.013	0.066	0.251	0.328
Mothers received medical care at birth	0.286	0.046	536	663	1.982	0.162	0.193	0.379
Had diarrhea in the past 2 weeks	0.143	0.015	505	626	1.028	0.108	0.112	0.174
Treated with ORS packets	0.166	0.044	72	89	0.999	0.263	0.079	0.253
Consulted medical personnel for diarrhea	0.295	0.067	72	89	1.251	0.227	0.161	0.428
Having health card, seen	0.575	0.045	115	144	0.982	0.079	0.484	0.665
Received BCG vaccination	0.870	0.050	115	144	1.590	0.057	0.771	0.969
Received DPT vaccination (3 doses)	0.587	0.061	115	144	1.328	0.104	0.465	0.709
Received polio vaccination (3 doses)	0.591	0.073	115	144	1.584	0.123	0.446	0.737
Received measles vaccination	0.686	0.049	115	144	1.141	0.072	0.588	0.785
Fully immunized	0.430	0.066	115	144	1.420	0.154	0.297	0.562
Height-for-age (below -2SD)	0.533	0.025	250	311	0.828	0.047	0.483	0.583
Weight-for-height (below -2SD)	0.063	0.018	250	311	1.093	0.287	0.027	0.100
Weight-for-age (below -2SD)	0.475	0.032	250	311	0.938	0.066	0.412	0.538
Total fertility rate (past 3 years)	4.217	0.329	na	3350	1.450	0.078	3.559	4.874
Neonatal mortality (0-9 years)	33.758	6.242	1079	1329	1.026	0.185	21.274	46.241
Post-neonatal mortality (0-9 years)	33.075	6.626	1080	1330	1.217	0.200	19.824	46.326
Infant mortality (0-9 years)	66.833	9.121	1080	1330	1.127	0.136	48.591	85.074
Child mortality (0-9 years)	28.612	5.373	1089	1341	0.974	0.188	17.866	39.357
Under-five mortality (0-9 years)	93.532	10.593	1090	1342	1.099	0.113	72.346	114.718
Experienced violence in past 12 months	0.080	0.035	137	158	1.515	0.442	0.009	0.151
HIV positive	0.003	0.003	458	552	1.119	0.982	0.000	0.008
MEN								
Urban residence	0.206	0.026	373	461	1.215	0.124	0.155	0.257
No schooling	0.248	0.026	373	461	1.155	0.104	0.196	0.300
Secondary or higher education	0.253	0.038	373	461	1.683	0.150	0.177	0.329
Never married (never in union)	0.376	0.023	373	461	0.907	0.061	0.331	0.422
Currently married (in union)	0.611	0.025	373	461	0.971	0.040	0.562	0.660
Married before age 20	0.212	0.024	206	257	0.854	0.115	0.164	0.261
Had first sexual intercourse before age 18	0.076	0.022	206	257	1.161	0.283	0.033	0.119
HIV positive	0.004	0.003	362	455	1.122	0.996	0.000	0.010

na = Not applicable

Table B.16 Sampling errors for Svay Rieng province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.043	0.009	828	658	1.348	0.222	0.024	0.062
No schooling	0.177	0.019	828	658	1.451	0.109	0.139	0.216
Secondary or higher education	0.222	0.021	828	658	1.424	0.093	0.180	0.263
Never married (never in union)	0.283	0.019	828	658	1.181	0.065	0.246	0.320
Currently married (in union)	0.646	0.020	828	658	1.190	0.031	0.606	0.685
Married before age 20	0.531	0.024	537	427	1.127	0.046	0.483	0.580
Had first sexual intercourse before age 18	0.236	0.020	537	427	1.117	0.087	0.195	0.277
Children ever born	2.385	0.114	828	658	1.368	0.048	2.157	2.613
Children ever born to women over age 40	4.714	0.163	211	164	0.919	0.035	4.388	5.039
Children surviving	2.083	0.111	828	658	1.528	0.053	1.862	2.305
Knowing any contraceptive method	1.000	0.000	529	425	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	529	425	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.624	0.031	529	425	1.472	0.050	0.561	0.686
Currently using any method	0.367	0.035	529	425	1.684	0.096	0.297	0.438
Currently using a modern method	0.308	0.034	529	425	1.669	0.109	0.240	0.375
Currently using daily pill	0.146	0.018	529	425	1.154	0.122	0.110	0.181
Currently using condom	0.013	0.006	529	425	1.129	0.432	0.002	0.024
Want no more children	0.655	0.027	529	425	1.282	0.041	0.602	0.708
Want to delay at least 2 years	0.196	0.018	529	425	1.034	0.091	0.160	0.231
Mothers received medical care at birth	0.289	0.042	313	256	1.449	0.145	0.205	0.373
Had diarrhea in the past 2 weeks	0.098	0.019	290	236	1.053	0.193	0.060	0.136
Treated with ORS packets	0.368	0.117	28	23	1.348	0.317	0.135	0.601
Consulted medical personnel for diarrhea	0.596	0.134	28	23	1.434	0.225	0.328	0.865
Having health card, seen	0.685	0.053	50	40	0.809	0.078	0.578	0.791
Received BCG vaccination	0.896	0.034	50	40	0.791	0.038	0.827	0.964
Received DPT vaccination (3 doses)	0.775	0.064	50	40	1.082	0.082	0.647	0.903
Received polio vaccination (3 doses)	0.785	0.062	50	40	1.073	0.079	0.661	0.910
Received measles vaccination	0.715	0.069	50	40	1.081	0.096	0.578	0.853
Fully immunized	0.668	0.075	50	40	1.123	0.112	0.519	0.817
Height-for-age (below -2SD)	0.354	0.033	149	120	0.817	0.092	0.289	0.419
Weight-for-height (below -2SD)	0.078	0.020	149	120	0.921	0.254	0.039	0.118
Weight-for-age (below -2SD)	0.376	0.052	149	120	1.279	0.139	0.272	0.481
Total fertility rate (past 3 years)	2.977	0.223	na	1818	1.195	0.075	2.531	3.424
Neonatal mortality (0-9 years)	28.516	6.490	738	603	0.858	0.228	15.536	41.495
Post-neonatal mortality (0-9 years)	63.776	9.949	739	604	1.082	0.156	43.877	83.674
Infant mortality (0-9 years)	92.291	12.357	739	604	0.978	0.134	67.578	117.005
Child mortality (0-9 years)	19.761	5.957	741	606	1.079	0.301	7.848	31.675
Under-five mortality (0-9 years)	110.229	14.723	742	607	1.106	0.134	80.783	139.675
Experienced violence in past 12 months	0.034	0.018	119	83	1.092	0.535	0.000	0.071
HIV positive	0.000	0.000	417	325	na	na	0.000	0.000
MEN								
Urban residence	0.040	0.012	363	281	1.119	0.288	0.017	0.063
No schooling	0.031	0.010	363	281	1.118	0.330	0.010	0.051
Secondary or higher education	0.511	0.025	363	281	0.966	0.050	0.460	0.561
Never married (never in union)	0.395	0.025	363	281	0.986	0.064	0.345	0.446
Currently married (in union)	0.599	0.027	363	281	1.053	0.045	0.544	0.653
Married before age 20	0.398	0.044	200	155	1.261	0.110	0.310	0.485
Had first sexual intercourse before age 18	0.076	0.016	199	155	0.849	0.210	0.044	0.108
HIV positive	0.000	0.000	354	279	na	na	0.000	0.000

na = Not applicable

Table B.17 Sampling errors for Takeo province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.047	0.002	888	1102	0.336	0.051	0.043	0.052
No schooling	0.144	0.017	888	1102	1.412	0.116	0.110	0.177
Secondary or higher education	0.314	0.034	888	1102	2.160	0.107	0.247	0.382
Never married (never in union)	0.296	0.015	888	1102	0.960	0.050	0.267	0.326
Currently married (in union)	0.625	0.014	888	1102	0.847	0.022	0.597	0.652
Married before age 20	0.475	0.027	573	721	1.280	0.056	0.422	0.529
Had first sexual intercourse before age 18	0.175	0.020	573	721	1.277	0.116	0.134	0.215
Children ever born	2.376	0.080	888	1102	1.025	0.034	2.216	2.536
Children ever born to women over age 40	4.534	0.180	216	273	1.054	0.040	4.173	4.894
Children surviving	2.107	0.062	888	1102	0.904	0.029	1.983	2.230
Knowing any contraceptive method	1.000	0.000	552	688	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	552	688	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.640	0.028	552	688	1.384	0.044	0.583	0.696
Currently using any method	0.442	0.031	552	688	1.465	0.070	0.380	0.504
Currently using a modern method	0.343	0.028	552	688	1.406	0.083	0.286	0.400
Currently using daily pill	0.145	0.023	552	688	1.559	0.161	0.099	0.192
Currently using condom	0.027	0.009	552	688	1.322	0.336	0.009	0.046
Want no more children	0.641	0.015	551	687	0.728	0.023	0.611	0.671
Want to delay at least 2 years	0.141	0.018	551	687	1.197	0.126	0.106	0.177
Mothers received medical care at birth	0.621	0.062	392	491	2.296	0.100	0.496	0.745
Had diarrhea in the past 2 weeks	0.112	0.020	368	460	1.142	0.178	0.072	0.152
Treated with ORS packets	0.249	0.061	46	52	0.852	0.244	0.128	0.370
Consulted medical personnel for diarrhea	0.642	0.071	46	52	1.005	0.110	0.501	0.783
Having health card, seen	0.656	0.059	70	84	1.021	0.090	0.538	0.774
Received BCG vaccination	0.953	0.025	70	84	0.991	0.027	0.903	1.000
Received DPT vaccination (3 doses)	0.868	0.039	70	84	0.947	0.045	0.791	0.946
Received polio vaccination (3 doses)	0.842	0.041	70	84	0.931	0.049	0.759	0.925
Received measles vaccination	0.860	0.034	70	84	0.806	0.040	0.791	0.928
Fully immunized	0.768	0.052	70	84	1.009	0.068	0.664	0.872
Height-for-age (below -2SD)	0.385	0.034	194	241	0.898	0.088	0.317	0.453
Weight-for-height (below -2SD)	0.076	0.025	194	241	1.207	0.324	0.027	0.125
Weight-for-age (below -2SD)	0.378	0.033	194	241	0.882	0.087	0.312	0.444
Total fertility rate (past 3 years)	3.197	0.187	na	3075	0.939	0.058	2.823	3.571
Neonatal mortality (0-9 years)	52.161	10.152	876	1102	1.122	0.195	31.857	72.464
Post-neonatal mortality (0-9 years)	43.467	8.999	878	1104	1.225	0.207	25.470	61.464
Infant mortality (0-9 years)	95.628	13.578	878	1104	1.200	0.142	68.472	122.783
Child mortality (0-9 years)	7.190	3.443	877	1103	1.330	0.479	0.305	14.076
Under-five mortality (0-9 years)	102.131	13.249	879	1105	1.159	0.130	75.632	128.630
Experienced violence in past 12 months	0.071	0.022	136	144	0.974	0.303	0.028	0.114
HIV positive	0.004	0.003	430	507	0.956	0.748	0.000	0.009
MEN								
Urban residence	0.047	0.014	406	491	1.294	0.290	0.020	0.074
No schooling	0.052	0.014	406	491	1.277	0.272	0.024	0.080
Secondary or higher education	0.582	0.031	406	491	1.247	0.053	0.521	0.643
Never married (never in union)	0.389	0.021	406	491	0.871	0.054	0.347	0.431
Currently married (in union)	0.586	0.024	406	491	0.975	0.041	0.538	0.634
Married before age 20	0.339	0.032	235	286	1.046	0.095	0.275	0.404
Had first sexual intercourse before age 18	0.073	0.028	235	286	1.620	0.377	0.018	0.129
HIV positive	0.003	0.003	402	484	0.997	0.978	0.000	0.008

na = Not applicable

Table B.18 Sampling errors for Otdar Mean Chey province, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.175	0.029	948	177	2.357	0.167	0.116	0.233
No schooling	0.390	0.037	948	177	2.352	0.096	0.315	0.464
Secondary or higher education	0.069	0.013	948	177	1.547	0.184	0.044	0.095
Never married (never in union)	0.263	0.019	948	177	1.301	0.071	0.226	0.300
Currently married (in union)	0.648	0.020	948	177	1.274	0.031	0.608	0.687
Married before age 20	0.600	0.015	537	105	0.728	0.026	0.569	0.630
Had first sexual intercourse before age 18	0.262	0.028	537	105	1.466	0.106	0.206	0.318
Children ever born	2.851	0.153	948	177	1.692	0.054	2.545	3.156
Children ever born to women over age 40	5.964	0.292	210	38	1.624	0.049	5.380	6.548
Children surviving	2.450	0.125	948	177	1.632	0.051	2.199	2.700
Knowing any contraceptive method	1.000	0.000	601	115	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	601	115	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.657	0.025	601	115	1.306	0.039	0.606	0.708
Currently using any method	0.503	0.032	601	115	1.565	0.064	0.439	0.567
Currently using a modern method	0.351	0.039	601	115	2.001	0.111	0.273	0.429
Currently using daily pill	0.190	0.030	601	115	1.851	0.156	0.131	0.249
Currently using condom	0.015	0.006	601	115	1.312	0.441	0.002	0.027
Want no more children	0.607	0.032	601	115	1.581	0.052	0.544	0.670
Want to delay at least 2 years	0.279	0.015	601	115	0.835	0.055	0.249	0.310
Mothers received medical care at birth	0.152	0.032	488	103	1.885	0.210	0.088	0.216
Had diarrhea in the past 2 weeks	0.138	0.015	447	92	0.826	0.105	0.109	0.167
Treated with ORS packets	0.374	0.143	65	13	2.048	0.383	0.087	0.661
Consulted medical personnel for diarrhea	0.509	0.107	65	13	1.557	0.211	0.295	0.724
Having health card, seen	0.654	0.033	94	24	0.743	0.050	0.588	0.720
Received BCG vaccination	0.896	0.016	94	24	0.577	0.018	0.863	0.928
Received DPT vaccination (3 doses)	0.796	0.041	94	24	1.117	0.052	0.713	0.879
Received polio vaccination (3 doses)	0.863	0.061	94	24	1.915	0.070	0.742	0.984
Received measles vaccination	0.710	0.055	94	24	1.191	0.078	0.600	0.820
Fully immunized	0.646	0.040	94	24	0.839	0.062	0.566	0.725
Height-for-age (below -2SD)	0.473	0.042	201	41	1.146	0.089	0.389	0.558
Weight-for-height (below -2SD)	0.103	0.040	201	41	1.875	0.391	0.023	0.184
Weight-for-age (below -2SD)	0.392	0.036	201	41	1.002	0.093	0.319	0.464
Total fertility rate (past 3 years)	4.207	0.712	na	491	2.767	0.169	2.782	5.632
Neonatal mortality (0-9 years)	18.944	7.512	1065	219	1.402	0.397	3.919	33.969
Post-neonatal mortality (0-9 years)	70.798	12.775	1068	220	1.313	0.180	45.249	96.348
Infant mortality (0-9 years)	89.743	11.861	1068	220	1.186	0.132	66.021	113.464
Child mortality (0-9 years)	22.570	3.077	1074	221	0.642	0.136	16.417	28.723
Under-five mortality (0-9 years)	110.287	12.722	1077	221	1.183	0.115	84.842	135.732
Experienced violence in past 12 months	0.190	0.053	131	22	1.525	0.277	0.085	0.296
HIV positive	0.001	0.001	445	81	0.540	1.020	0.000	0.002
MEN								
Urban residence	0.153	0.023	331	69	1.172	0.152	0.107	0.199
No schooling	0.197	0.035	331	69	1.583	0.176	0.127	0.266
Secondary or higher education	0.180	0.030	331	69	1.399	0.165	0.121	0.239
Never married (never in union)	0.318	0.049	331	69	1.894	0.153	0.220	0.415
Currently married (in union)	0.638	0.041	331	69	1.532	0.064	0.557	0.719
Married before age 20	0.340	0.042	183	41	1.184	0.122	0.257	0.424
Had first sexual intercourse before age 18	0.213	0.091	183	41	2.925	0.426	0.031	0.394
HIV positive	0.002	0.002	330	68	0.792	1.003	0.000	0.006

na = Not applicable

Table B.19 Sampling errors for Battambang/Krong Pailin provinces, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.220	0.015	1036	1247	1.169	0.068	0.190	0.250
No schooling	0.151	0.020	1036	1247	1.801	0.133	0.111	0.191
Secondary or higher education	0.282	0.037	1036	1247	2.658	0.132	0.208	0.357
Never married (never in union)	0.370	0.018	1036	1247	1.208	0.049	0.334	0.406
Currently married (in union)	0.564	0.015	1036	1247	0.986	0.027	0.534	0.594
Married before age 20	0.501	0.034	561	683	1.594	0.067	0.434	0.569
Had first sexual intercourse before age 18	0.296	0.027	561	683	1.377	0.090	0.243	0.349
Children ever born	2.297	0.114	1036	1247	1.359	0.049	2.069	2.524
Children ever born to women over age 40	5.330	0.178	235	292	1.037	0.033	4.974	5.686
Children surviving	1.963	0.092	1036	1247	1.321	0.047	1.780	2.147
Knowing any contraceptive method	1.000	0.000	572	704	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	572	704	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.732	0.024	572	704	1.283	0.033	0.684	0.779
Currently using any method	0.466	0.018	572	704	0.867	0.039	0.430	0.502
Currently using a modern method	0.298	0.021	572	704	1.117	0.072	0.255	0.341
Currently using daily pill	0.129	0.015	572	704	1.040	0.113	0.100	0.158
Currently using condom	0.026	0.006	572	704	0.837	0.213	0.015	0.037
Want no more children	0.598	0.022	572	704	1.067	0.037	0.554	0.642
Want to delay at least 2 years	0.258	0.018	572	704	0.966	0.069	0.222	0.293
Mothers received medical care at birth	0.592	0.066	425	532	2.318	0.112	0.460	0.724
Had diarrhea in the past 2 weeks	0.183	0.018	394	492	0.939	0.098	0.147	0.219
Treated with ORS packets	0.308	0.067	74	90	1.187	0.219	0.173	0.443
Consulted medical personnel for diarrhea	0.416	0.053	74	90	0.905	0.129	0.309	0.523
Having health card, seen	0.586	0.048	84	101	0.877	0.082	0.490	0.683
Received BCG vaccination	0.955	0.022	84	101	0.966	0.023	0.911	0.999
Received DPT vaccination (3 doses)	0.883	0.027	84	101	0.756	0.030	0.829	0.937
Received polio vaccination (3 doses)	0.883	0.027	84	101	0.756	0.030	0.829	0.937
Received measles vaccination	0.876	0.049	84	101	1.334	0.056	0.779	0.973
Fully immunized	0.824	0.045	84	101	1.065	0.055	0.734	0.914
Height-for-age (below -2SD)	0.362	0.044	219	271	1.324	0.122	0.273	0.450
Weight-for-height (below -2SD)	0.056	0.015	219	271	0.981	0.268	0.026	0.087
Weight-for-age (below -2SD)	0.298	0.029	219	271	0.889	0.098	0.240	0.356
Total fertility rate (past 3 years)	3.499	0.216	na	3382	0.916	0.062	3.067	3.931
Neonatal mortality (0-9 years)	29.359	6.381	915	1150	1.071	0.217	16.597	42.121
Post-neonatal mortality (0-9 years)	67.690	11.953	917	1154	1.316	0.177	43.784	91.596
Infant mortality (0-9 years)	97.050	13.979	918	1156	1.301	0.144	69.091	125.008
Child mortality (0-9 years)	21.033	5.419	918	1153	1.120	0.258	10.194	31.872
Under-five mortality (0-9 years)	116.041	14.479	922	1160	1.294	0.125	87.084	144.998
Experienced violence in past 12 months	0.057	0.017	105	129	0.735	0.294	0.023	0.090
HIV positive	0.008	0.004	525	612	0.942	0.467	0.001	0.015
MEN								
Urban residence	0.201	0.022	373	456	1.050	0.108	0.158	0.245
No schooling	0.049	0.009	373	456	0.811	0.185	0.031	0.067
Secondary or higher education	0.406	0.037	373	456	1.459	0.092	0.332	0.481
Never married (never in union)	0.398	0.027	373	456	1.062	0.068	0.344	0.452
Currently married (in union)	0.580	0.025	373	456	0.989	0.044	0.530	0.631
Married before age 20	0.242	0.034	200	249	1.119	0.141	0.174	0.310
Had first sexual intercourse before age 18	0.162	0.043	200	249	1.654	0.268	0.075	0.248
HIV positive	0.007	0.004	367	446	0.919	0.572	0.000	0.015

na = Not applicable

Table B.20 Sampling errors for Kampot/Krong Kep provinces, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.139	0.010	873	839	0.860	0.072	0.119	0.159
No schooling	0.143	0.018	873	839	1.541	0.128	0.107	0.180
Secondary or higher education	0.239	0.028	873	839	1.965	0.119	0.182	0.295
Never married (never in union)	0.309	0.018	873	839	1.172	0.059	0.272	0.346
Currently married (in union)	0.628	0.019	873	839	1.167	0.030	0.590	0.666
Married before age 20	0.558	0.015	512	495	0.696	0.027	0.528	0.589
Had first sexual intercourse before age 18	0.236	0.021	512	495	1.114	0.089	0.195	0.278
Children ever born	2.329	0.087	873	839	1.041	0.037	2.155	2.503
Children ever born to women over age 40	5.083	0.225	188	181	1.179	0.044	4.632	5.533
Children surviving	2.063	0.074	873	839	1.007	0.036	1.915	2.211
Knowing any contraceptive method	1.000	0.000	544	527	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	544	527	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.628	0.030	544	527	1.447	0.048	0.568	0.688
Currently using any method	0.399	0.027	544	527	1.264	0.067	0.345	0.452
Currently using a modern method	0.287	0.021	544	527	1.077	0.073	0.245	0.328
Currently using daily pill	0.135	0.013	544	527	0.919	0.100	0.108	0.162
Currently using condom	0.011	0.004	544	527	1.014	0.421	0.002	0.019
Want no more children	0.606	0.018	544	527	0.838	0.029	0.571	0.641
Want to delay at least 2 years	0.248	0.017	544	527	0.895	0.067	0.215	0.281
Mothers received medical care at birth	0.409	0.046	403	390	1.631	0.113	0.317	0.502
Had diarrhea in the past 2 weeks	0.110	0.017	375	363	0.970	0.152	0.076	0.143
Treated with ORS packets	0.217	0.087	40	40	1.226	0.404	0.042	0.392
Consulted medical personnel for diarrhea	0.313	0.073	40	40	0.894	0.234	0.166	0.460
Having health card, seen	0.510	0.066	77	74	1.162	0.130	0.377	0.643
Received BCG vaccination	0.713	0.062	77	74	1.192	0.087	0.589	0.836
Received DPT vaccination (3 doses)	0.512	0.064	77	74	1.115	0.124	0.384	0.639
Received polio vaccination (3 doses)	0.514	0.064	77	74	1.116	0.124	0.387	0.642
Received measles vaccination	0.578	0.067	77	74	1.193	0.117	0.443	0.713
Fully immunized	0.407	0.064	77	74	1.135	0.157	0.279	0.534
Height-for-age (below -2SD)	0.282	0.031	193	184	0.950	0.109	0.220	0.343
Weight-for-height (below -2SD)	0.050	0.021	193	184	1.192	0.412	0.009	0.091
Weight-for-age (below -2SD)	0.310	0.036	193	184	1.064	0.118	0.237	0.383
Total fertility rate (past 3 years)	3.184	0.153	na	2301	0.907	0.048	2.877	3.491
Neonatal mortality (0-9 years)	37.024	7.564	865	837	1.180	0.204	21.895	52.153
Post-neonatal mortality (0-9 years)	30.443	6.653	866	838	1.113	0.219	17.137	43.749
Infant mortality (0-9 years)	67.467	11.833	866	838	1.280	0.175	43.802	91.132
Child mortality (0-9 years)	16.926	3.574	867	839	0.825	0.211	9.778	24.074
Under-five mortality (0-9 years)	83.251	12.247	868	840	1.224	0.147	58.758	107.744
Experienced violence in past 12 months	0.022	0.013	122	106	1.011	0.612	0.000	0.049
HIV positive	0.008	0.004	402	379	0.955	0.541	0.000	0.016
MEN								
Urban residence	0.117	0.017	336	321	0.972	0.146	0.082	0.151
No schooling	0.054	0.013	336	321	1.013	0.231	0.029	0.080
Secondary or higher education	0.366	0.035	336	321	1.340	0.096	0.296	0.437
Never married (never in union)	0.345	0.029	336	321	1.127	0.085	0.287	0.404
Currently married (in union)	0.620	0.031	336	321	1.182	0.051	0.558	0.683
Married before age 20	0.382	0.038	201	189	1.097	0.099	0.306	0.457
Had first sexual intercourse before age 18	0.107	0.028	201	189	1.289	0.263	0.051	0.164
HIV positive	0.008	0.004	323	317	0.908	0.574	0.000	0.017

na = Not applicable

Table B.21 Sampling errors for Krong Preah Sihanouk/Kaoh Kong provinces, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.693	0.028	808	379	1.750	0.041	0.636	0.750
No schooling	0.319	0.026	808	379	1.555	0.080	0.268	0.370
Secondary or higher education	0.191	0.032	808	379	2.341	0.170	0.126	0.256
Never married (never in union)	0.271	0.015	808	379	0.942	0.054	0.241	0.300
Currently married (in union)	0.651	0.021	808	379	1.279	0.033	0.608	0.694
Married before age 20	0.507	0.041	493	231	1.801	0.080	0.425	0.588
Had first sexual intercourse before age 18	0.240	0.032	493	231	1.647	0.132	0.176	0.303
Children ever born	2.600	0.136	808	379	1.456	0.052	2.327	2.872
Children ever born to women over age 40	5.459	0.287	171	79	1.353	0.053	4.884	6.034
Children surviving	2.244	0.094	808	379	1.205	0.042	2.057	2.431
Knowing any contraceptive method	0.998	0.002	528	247	0.915	0.002	0.995	1.000
Knowing any modern contraceptive method	0.998	0.002	528	247	0.915	0.002	0.995	1.000
Ever used any contraceptive method	0.677	0.026	528	247	1.300	0.039	0.624	0.730
Currently using any method	0.443	0.026	528	247	1.209	0.059	0.391	0.495
Currently using a modern method	0.301	0.022	528	247	1.119	0.074	0.256	0.346
Currently using daily pill	0.137	0.024	528	247	1.586	0.173	0.090	0.185
Currently using condom	0.023	0.008	528	247	1.226	0.350	0.007	0.039
Want no more children	0.540	0.021	527	247	0.963	0.039	0.498	0.582
Want to delay at least 2 years	0.228	0.017	527	247	0.945	0.076	0.193	0.263
Mothers received medical care at birth	0.570	0.059	431	203	2.025	0.104	0.452	0.689
Had diarrhea in the past 2 weeks	0.088	0.015	407	191	1.025	0.169	0.059	0.118
Treated with ORS packets	0.093	0.046	38	17	0.940	0.491	0.002	0.185
Consulted medical personnel for diarrhea	0.076	0.037	38	17	0.868	0.491	0.001	0.150
Having health card, seen	0.604	0.032	92	42	0.629	0.054	0.539	0.668
Received BCG vaccination	0.903	0.029	92	42	0.918	0.032	0.846	0.960
Received DPT vaccination (3 doses)	0.705	0.049	92	42	1.028	0.070	0.607	0.804
Received polio vaccination (3 doses)	0.751	0.046	92	42	1.001	0.061	0.660	0.842
Received measles vaccination	0.820	0.043	92	42	1.074	0.053	0.733	0.907
Fully immunized	0.652	0.044	92	42	0.886	0.068	0.564	0.741
Height-for-age (below -2SD)	0.368	0.030	196	91	0.907	0.083	0.307	0.428
Weight-for-height (below -2SD)	0.073	0.020	196	91	1.095	0.268	0.034	0.112
Weight-for-age (below -2SD)	0.373	0.049	196	91	1.278	0.132	0.275	0.471
Total fertility rate (past 3 years)	3.857	0.360	na	1068	1.728	0.093	3.138	4.576
Neonatal mortality (0-9 years)	37.197	10.613	966	458	1.459	0.285	15.970	58.423
Post-neonatal mortality (0-9 years)	50.369	7.881	966	458	1.027	0.156	34.607	66.131
Infant mortality (0-9 years)	87.565	15.043	966	458	1.426	0.172	57.479	117.652
Child mortality (0-9 years)	17.736	5.532	969	460	1.141	0.312	6.671	28.801
Under-five mortality (0-9 years)	103.748	15.399	969	460	1.373	0.148	72.951	134.546
Experienced violence in past 12 months	0.076	0.030	115	44	1.201	0.393	0.016	0.135
HIV positive	0.017	0.006	394	185	0.977	0.370	0.005	0.030
MEN								
Urban residence	0.673	0.023	328	160	0.901	0.035	0.627	0.720
No schooling	0.092	0.018	328	160	1.105	0.192	0.056	0.127
Secondary or higher education	0.465	0.038	328	160	1.372	0.081	0.389	0.541
Never married (never in union)	0.385	0.033	328	160	1.240	0.087	0.318	0.452
Currently married (in union)	0.581	0.034	328	160	1.247	0.059	0.513	0.649
Married before age 20	0.220	0.035	193	94	1.169	0.159	0.150	0.290
Had first sexual intercourse before age 18	0.106	0.017	191	93	0.744	0.157	0.073	0.139
HIV positive	0.007	0.004	301	157	0.838	0.583	0.000	0.015

na = Not applicable

Table B.22 Sampling errors for Preah Vihear/Steung Treng provinces, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.206	0.022	873	301	1.641	0.109	0.161	0.251
No schooling	0.240	0.026	873	301	1.765	0.106	0.189	0.292
Secondary or higher education	0.115	0.018	873	301	1.656	0.155	0.079	0.151
Never married (never in union)	0.241	0.015	873	301	1.046	0.063	0.210	0.271
Currently married (in union)	0.692	0.017	873	301	1.113	0.025	0.657	0.726
Married before age 20	0.640	0.033	533	185	1.601	0.052	0.573	0.707
Had first sexual intercourse before age 18	0.327	0.022	533	185	1.076	0.067	0.283	0.370
Children ever born	2.837	0.114	873	301	1.201	0.040	2.609	3.065
Children ever born to women over age 40	6.563	0.427	146	49	1.870	0.065	5.709	7.417
Children surviving	2.351	0.087	873	301	1.141	0.037	2.177	2.526
Knowing any contraceptive method	0.971	0.016	586	208	2.358	0.017	0.938	1.000
Knowing any modern contraceptive method	0.971	0.016	586	208	2.358	0.017	0.938	1.000
Ever used any contraceptive method	0.500	0.028	586	208	1.373	0.057	0.444	0.557
Currently using any method	0.307	0.021	586	208	1.094	0.068	0.266	0.349
Currently using a modern method	0.250	0.023	586	208	1.281	0.092	0.204	0.296
Currently using daily pill	0.105	0.017	586	208	1.342	0.162	0.071	0.140
Currently using condom	0.019	0.005	586	208	0.857	0.255	0.009	0.029
Want no more children	0.580	0.029	586	208	1.412	0.050	0.522	0.638
Want to delay at least 2 years	0.222	0.021	586	208	1.218	0.094	0.180	0.264
Mothers received medical care at birth	0.130	0.021	591	218	1.353	0.164	0.087	0.173
Had diarrhea in the past 2 weeks	0.280	0.027	521	194	1.327	0.095	0.227	0.333
Treated with ORS packets	0.132	0.038	140	54	1.315	0.286	0.056	0.207
Consulted medical personnel for diarrhea	0.193	0.043	140	54	1.240	0.222	0.107	0.278
Having health card, seen	0.514	0.042	111	39	0.884	0.082	0.430	0.599
Received BCG vaccination	0.897	0.015	111	39	0.506	0.016	0.868	0.927
Received DPT vaccination (3 doses)	0.568	0.042	111	39	0.888	0.074	0.484	0.652
Received polio vaccination (3 doses)	0.547	0.047	111	39	0.979	0.085	0.454	0.640
Received measles vaccination	0.682	0.042	111	39	0.945	0.062	0.598	0.766
Fully immunized	0.464	0.060	111	39	1.252	0.129	0.344	0.584
Height-for-age (below -2SD)	0.420	0.044	244	90	1.458	0.105	0.332	0.509
Weight-for-height (below -2SD)	0.097	0.021	244	90	1.112	0.213	0.055	0.138
Weight-for-age (below -2SD)	0.481	0.041	244	90	1.274	0.085	0.399	0.563
Total fertility rate (past 3 years)	4.904	0.295	na	835	1.774	0.060	4.315	5.494
Neonatal mortality (0-9 years)	34.462	5.888	1181	435	1.079	0.171	22.687	46.237
Post-neonatal mortality (0-9 years)	76.923	6.389	1183	436	0.815	0.083	64.145	89.702
Infant mortality (0-9 years)	111.385	7.571	1183	436	0.840	0.068	96.242	126.528
Child mortality (0-9 years)	38.741	7.111	1191	439	1.210	0.184	24.519	52.963
Under-five mortality (0-9 years)	145.811	10.946	1193	439	1.011	0.075	123.919	167.703
Experienced violence in past 12 months	0.148	0.027	134	43	0.886	0.185	0.093	0.202
HIV positive	0.002	0.002	396	131	0.939	1.010	0.000	0.007
MEN								
Urban residence	0.226	0.020	347	116	0.910	0.091	0.185	0.267
No schooling	0.144	0.024	347	116	1.294	0.170	0.095	0.193
Secondary or higher education	0.285	0.044	347	116	1.790	0.153	0.198	0.372
Never married (never in union)	0.321	0.032	347	116	1.284	0.100	0.257	0.386
Currently married (in union)	0.669	0.031	347	116	1.242	0.047	0.606	0.732
Married before age 20	0.242	0.031	207	71	1.030	0.127	0.181	0.304
Had first sexual intercourse before age 18	0.052	0.022	206	71	1.392	0.417	0.009	0.095
HIV positive	0.003	0.003	333	115	0.935	1.005	0.000	0.008

na = Not applicable

Table B.23 Sampling errors for Mondol Kiri/Rattanak Kiri provinces, Cambodia 2005

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.183	0.028	865	215	2.142	0.155	0.126	0.239
No schooling	0.615	0.037	865	215	2.224	0.060	0.541	0.689
Secondary or higher education	0.094	0.013	865	215	1.282	0.135	0.069	0.120
Never married (never in union)	0.210	0.021	865	215	1.548	0.102	0.167	0.253
Currently married (in union)	0.724	0.021	865	215	1.368	0.029	0.682	0.765
Married before age 20	0.646	0.026	519	129	1.256	0.041	0.593	0.699
Had first sexual intercourse before age 18	0.383	0.022	519	129	1.020	0.057	0.339	0.426
Children ever born	3.058	0.141	865	215	1.350	0.046	2.775	3.340
Children ever born to women over age 40	6.398	0.225	166	41	0.916	0.035	5.948	6.849
Children surviving	2.366	0.066	865	215	0.830	0.028	2.234	2.499
Knowing any contraceptive method	0.759	0.033	627	155	1.910	0.043	0.694	0.825
Knowing any modern contraceptive method	0.753	0.033	627	155	1.888	0.043	0.688	0.818
Ever used any contraceptive method	0.334	0.030	627	155	1.575	0.089	0.275	0.394
Currently using any method	0.215	0.024	627	155	1.449	0.111	0.167	0.263
Currently using a modern method	0.193	0.020	627	155	1.276	0.104	0.153	0.233
Currently using daily pill	0.084	0.017	627	155	1.517	0.200	0.051	0.118
Currently using condom	0.012	0.005	627	155	1.136	0.411	0.002	0.022
Want no more children	0.444	0.040	627	155	2.014	0.090	0.364	0.524
Want to delay at least 2 years	0.212	0.026	627	155	1.578	0.122	0.161	0.264
Mothers received medical care at birth	0.137	0.029	644	158	1.873	0.211	0.079	0.195
Had diarrhea in the past 2 weeks	0.211	0.017	595	147	0.954	0.081	0.176	0.245
Treated with ORS packets	0.223	0.059	134	31	1.401	0.265	0.105	0.341
Consulted medical personnel for diarrhea	0.244	0.068	134	31	1.500	0.277	0.109	0.380
Having health card, seen	0.430	0.071	102	28	1.516	0.165	0.288	0.571
Received BCG vaccination	0.759	0.043	102	28	1.077	0.057	0.672	0.846
Received DPT vaccination (3 doses)	0.396	0.074	102	28	1.604	0.187	0.248	0.545
Received polio vaccination (3 doses)	0.432	0.076	102	28	1.621	0.176	0.280	0.584
Received measles vaccination	0.558	0.078	102	28	1.656	0.139	0.402	0.713
Fully immunized	0.346	0.087	102	28	1.943	0.252	0.171	0.520
Height-for-age (below -2SD)	0.540	0.032	292	69	1.005	0.059	0.476	0.604
Weight-for-height (below -2SD)	0.076	0.013	292	69	0.840	0.171	0.050	0.103
Weight-for-age (below -2SD)	0.522	0.037	292	69	1.111	0.070	0.449	0.596
Total fertility rate (past 3 years)	5.153	0.332	na	597	1.218	0.064	4.489	5.817
Neonatal mortality (0-9 years)	56.320	8.977	1341	327	1.299	0.159	38.367	74.273
Post-neonatal mortality (0-9 years)	65.360	7.853	1345	327	1.029	0.120	49.653	81.067
Infant mortality (0-9 years)	121.680	12.889	1345	327	1.229	0.106	95.902	147.459
Child mortality (0-9 years)	49.735	8.056	1353	329	1.208	0.162	33.622	65.848
Under-five mortality (0-9 years)	165.363	15.782	1357	330	1.363	0.095	133.799	196.928
Experienced violence in past 12 months	0.146	0.042	115	27	1.258	0.286	0.062	0.229
HIV positive	0.000	0.000	436	107	na	na	0.000	0.000
MEN								
Urban residence	0.186	0.028	411	110	1.436	0.149	0.131	0.241
No schooling	0.345	0.034	411	110	1.457	0.099	0.276	0.413
Secondary or higher education	0.201	0.017	411	110	0.880	0.087	0.167	0.236
Never married (never in union)	0.320	0.015	411	110	0.659	0.047	0.289	0.350
Currently married (in union)	0.663	0.015	411	110	0.622	0.022	0.634	0.692
Married before age 20	0.401	0.034	246	67	1.071	0.084	0.334	0.468
Had first sexual intercourse before age 18	0.222	0.022	246	67	0.829	0.099	0.178	0.266
HIV positive	0.000	0.000	396	109	na	na	0.000	0.000

na = Not applicable

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Cambodia 2005

	Female		Male			Female		Male	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	806	2.3	761	2.4	36	449	1.3	335	1.1
1	790	2.2	817	2.6	37	404	1.1	360	1.1
2	736	2.1	775	2.5	38	440	1.2	324	1.0
3	799	2.2	735	2.3	39	496	1.4	354	1.1
4	733	2.1	732	2.3	40	434	1.2	344	1.1
5	865	2.4	851	2.7	41	430	1.2	403	1.3
6	789	2.2	788	2.5	42	402	1.1	339	1.1
7	798	2.2	835	2.7	43	483	1.4	332	1.1
8	852	2.4	810	2.6	44	412	1.2	323	1.0
9	843	2.4	895	2.9	45	328	0.9	286	0.9
10	1,003	2.8	998	3.2	46	392	1.1	244	0.8
11	990	2.8	989	3.2	47	341	1.0	209	0.7
12	1,040	2.9	1,050	3.4	48	376	1.1	236	0.8
13	1,057	3.0	1,043	3.3	49	302	0.9	175	0.6
14	908	2.6	949	3.0	50	224	0.6	176	0.6
15	821	2.3	878	2.8	51	353	1.0	210	0.7
16	805	2.3	838	2.7	52	314	0.9	184	0.6
17	768	2.2	769	2.5	53	312	0.9	206	0.7
18	715	2.0	668	2.1	54	226	0.6	177	0.6
19	620	1.7	609	1.9	55	276	0.8	205	0.7
20	615	1.7	581	1.9	56	211	0.6	127	0.4
21	602	1.7	523	1.7	57	204	0.6	163	0.5
22	605	1.7	487	1.6	58	250	0.7	148	0.5
23	634	1.8	567	1.8	59	197	0.6	116	0.4
24	653	1.8	540	1.7	60	230	0.6	181	0.6
25	645	1.8	582	1.9	61	179	0.5	103	0.3
26	520	1.5	471	1.5	62	120	0.3	104	0.3
27	349	1.0	323	1.0	63	160	0.4	131	0.4
28	315	0.9	231	0.7	64	131	0.4	104	0.3
29	309	0.9	268	0.9	65	185	0.5	117	0.4
30	399	1.1	276	0.9	66	136	0.4	92	0.3
31	378	1.1	328	1.0	67	152	0.4	118	0.4
32	377	1.1	364	1.2	68	136	0.4	95	0.3
33	483	1.4	405	1.3	69	101	0.3	82	0.3
34	494	1.4	357	1.1	70+	1,178	3.3	710	2.3
35	467	1.3	445	1.4	Don't know/ missing	0	0.0	0	0.0
					Total	35,547	100.0	31,347	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54 and interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Cambodia 2005

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	4,996	na	na	na
15-19	3,729	3,589	21.4	96.2
20-24	3,110	3,028	18.0	97.4
25-29	2,138	2,062	12.3	96.5
30-34	2,130	2,075	12.4	97.4
25-39	2,256	2,228	13.3	98.7
40-44	2,161	2,107	12.5	97.5
45-49	1,739	1,710	10.2	98.3
50-54	1,429	na	na	na
15-49	17,264	16,799	100.0	97.3

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men aged 10-54, interviewed men aged 15-49 and percent of eligible men who were interviewed (weighted), Cambodia 2005

Age group	Household population of men age 10-54	Interviewed men age 15-49		Percentage of eligible men interviewed
		Number	Percent	
10-14	2,477	-	-	-
15-19	1,776	1,656	24.6	93.2
20-24	1,299	1,225	18.2	94.3
25-29	888	830	12.3	93.5
30-34	869	814	12.1	93.7
25-39	928	865	12.9	93.2
40-44	835	793	11.8	95.0
45-49	569	548	8.1	96.4
50-54	457	0	0.0	0.0
15-49	7,164	6,731	100.0	94.0

Table C.3 Completeness of reporting

Percentage of cases missing information on selected demographic and health data (weighted), Cambodia 2005

Subject	Reference group	Percentage with missing information	Number of cases
Birth date	Births in the 15 years preceding the survey		
Month only		1.27	25,677
Month and year		0.01	25,677
Age at death	Dead children born in the 15 years preceding the survey	0.33	2,868
Age/date at first union[1]	Ever-married women age 15-49 and ever-married men age 15-49	0.16	15,596
Respondent's education	All women age 15-49 and all men age 15-49	0.01	23,554
Diarrhea in past 2 weeks	Living children age 0-59 months	0.70	7,271
Anthropometry[2]	Living children age 0-59 months		
Height		2.64	3,787
Weight		2.10	3,787
Height or weight		2.64	3,787
Anemia[2]			
Children	Living children age 0-59 months	8.34	3,445
Women	All women	4.87	8,664

[1] Both year and age missing
[2] Information taken from Household Questionnaire

Table C.4 Births by calendar year

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Cambodia 2005

Calendar year[1]	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
	L	D	T	L	D	T	L	D	T	L	D	T
2005	1,449	61	1,510	100.0	99.0	99.9	94.1	233.0	97.4	na	na	na
2004	1,454	87	1,541	99.8	98.9	99.8	107.0	159.8	109.4	na	na	na
2003	1,469	114	1,583	99.7	97.6	99.6	102.8	146.2	105.4	102.1	122.9	103.4
2002	1,422	99	1,521	99.8	93.0	99.4	89.5	111.5	90.8	99.9	70.5	97.3
2001	1,378	166	1,544	99.9	97.9	99.6	95.6	124.3	98.3	92.1	111.9	93.9
2000	1,569	198	1,766	99.4	94.6	98.9	108.1	116.7	109.0	108.9	92.1	106.7
1999	1,504	263	1,768	99.2	94.1	98.5	93.7	93.1	93.6	99.4	118.4	101.9
1998	1,457	247	1,704	99.3	92.0	98.2	110.6	123.7	112.5	98.3	107.7	99.6
1997	1,460	196	1,656	99.3	92.1	98.5	92.2	140.7	96.8	98.5	82.0	96.2
1996	1,507	230	1,737	98.7	95.3	98.3	105.6	110.3	106.2	96.2	112.0	98.0
2001-2005	7,173	527	7,700	99.8	97.2	99.7	97.7	140.8	100.1	na	na	na
1996-2000	7,497	1,134	8,631	99.2	93.6	98.5	101.8	114.4	103.4	na	na	na
1991-1995	8,042	1,205	9,247	99.1	92.4	98.2	98.7	119.2	101.2	na	na	na
1986-1990	5,971	994	6,966	98.7	91.3	97.6	103.7	114.4	105.2	na	na	na
<1986	5,100	1,122	6,221	98.4	93.3	97.5	100.1	120.1	103.5	na	na	na
All	33,783	4,981	38,764	99.1	93.2	98.3	100.3	119.4	102.5	na	na	na

na = Not applicable
[1] Both year and month of birth given
[2] $(B_m/B_f)x100$, where B_m and B_f are the numbers of male and female births, respectively
[3] $[2B_x/(_{Bx-1}+B_{x+1})]x100$, where B_x is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Cambodia 2005

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	61	103	106	72	342
1	49	71	88	43	250
2	17	18	29	14	79
3	20	25	32	19	96
4	8	7	9	6	31
5	7	16	13	11	47
6	5	7	6	6	23
7	22	48	65	45	181
8	1	5	2	4	11
9	1	9	4	6	20
10	5	16	10	15	46
11	0	0	0	1	2
12	1	2	5	0	8
13	0	0	0	1	1
14	2	1	4	2	9
15	8	16	28	23	74
16	0	0	1	0	1
17	0	3	2	3	8
18	1	0	0	2	4
20	0	12	6	5	23
23	0	0	0	1	1
25	0	3	0	2	5
27	0	2	0	0	2
28	1	0	1	0	2
30	0	2	0	0	2
31+	2	7	1	3	13
Total 0-30	211	365	412	281	1,268
Percentage early neonatal[1]	79.2	67.7	68.7	60.7	68.4

[1] <= 6 days/<= 30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Cambodia 2005

Age at death (months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1[a]	211	371	412	281	1,275
1	71	134	101	61	366
2	66	130	80	39	316
3	48	101	105	75	328
4	23	38	24	17	102
5	7	35	31	33	106
6	7	42	31	16	96
7	12	30	29	24	95
8	2	30	24	13	69
9	7	16	14	12	48
10	2	5	13	9	30
11	1	6	8	3	18
12	7	26	41	35	109
13	1	0	5	3	10
14	7	6	11	8	32
15	0	6	4	8	18
16	0	2	3	2	7
17	1	0	2	6	9
18	1	5	9	9	24
19	0	2	3	1	6
20	3	3	2	3	11
21	1	3	2	3	8
22	2	0	1	0	3
23	0	1	1	0	3
24+	2	4	1	4	12
Missing	0	1	1	0	2
1 year	11	26	20	15	71
Total 0-11	456	936	871	583	2,846
Percentage neonatal[1]	46.2	39.6	47.3	48.2	44.8

[1] Under one month/under one year
[a] Includes deaths under one month reported in days

PERSONS INVOLVED IN THE 2005 CAMBODIA DEMOGRAPHIC AND HEALTH SURVEY

Appendix ***D***

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Seang Seyha
Lim Simmany
Chap Sokhemarith
Chun Phally
Yin Lochdavy
Prum Sotha
Meas Vannary
Chan Phanny

Nhim Sokchandara
Seang Selorosk
Thong Somaly
Khiev Pagna
Pol Sophea
Samreth Savy
Chor Thonna
Ben Sokly
Soa Kimhy
Korm Rekha

Uy Savan
Ath Silonn

Hourt Soklim
Ouk Rithy
Chum Vila
Chea Chanthou
Ke Chantra
Prom Thongdy
Tep Veasna
Hout Sinath
Chiem Sotheary

Tum Tevy
Kang Sreymom
Hout Pichmony
Oum Sopheakdey
Net Sophy
Son Thyda
Rang Sokha

Yu Peach
Cheam Kim Im

Nut Chamroeun
Nut Sreytouch
Khleang Sovanna
An Rady
Kem Ratha
Diep Siwadaralene
Chhinh Sophal
Oum Moniraksmey
Phan Chanda

Ung Nimol
Un Chamroeun
Meas Rattany
Ma Sotha
Noun Nisaykosal
Mam Lay
Chak Chounsamly

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QUESTIONNAIRES

Appendix ***E***

CAMBODIA DEMOGRAPHIC AND HEALTH SURVEY 2005
HOUSEHOLD QUESTIONNAIRE

MINISTRY OF PLANNING
NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH
NATIONAL INSTITUTE OF PUBLIC HEALTH

DOMAIN		DOMAIN
PROVINCE		PROVINCE
DISTRICT		DISTRICT
COMMUNE		COMMUNE
VILLAGE		VILLAGE
NAME OF HOUSEHOLD HEAD		
CLUSTER NUMBER		CLUSTER
HOUSEHOLD NUMBER		HOUSEHOLD

IS THIS HOUSEHOLD SELECTED FOR HIV TESTING OF MEN AND WOMEN ?	(1 = Yes, 2 = NO)	HIV
IS THIS HOUSEHOLD SELECTED FOR ANEMIA OF WOMEN AND CHILDREN ?	(1 = Yes, 2 = NO)	ANEMIA
IS THIS HOUSEHOLD SELECTED FOR HEIGHT AND WEIGHT OF WOMEN AND CHILDREN ?	(1 = Yes, 2 = NO)	HEIGHT/WEIGHT
IS THIS HOUSEHOLD SELECTED FOR CAUSE OF DEATH MODULE ?	(1 = Yes, 2 = NO)	CAUSE OF DEATH
IS THIS HOUSEHOLD SELECTED FOR WOMEN'S STATUS MODULE ?	(1 = Yes, 2 = NO)	WOMEN'S STATUS
IS THIS HOUSEHOLD SELECTED FOR HOUSEHOLD RELATIONS MODULE ?	(1 = Yes, 2 = NO)	HH RELATIONS
RECORD LINE NUMBER OF WOMAN SELECTED FOR HH RELATIONS, IF NO WOMAN SELECTED,RECORD **00.**		WOMAN SELECTED

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT *
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD	
TOTAL ELIGIBLE WOMEN	
TOTAL ELIGIBLE MEN	
LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE	

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? RECORD IN COMPLETED YEARS. IF LESS THAN ONE YEAR RECORD **00**.	IF AGE 15 YEARS OR OLDER What is (NAME)'s current marital status?**	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			M F	YES NO	YES NO	IN YEARS				
01			1 2	1 2	1 2			01	01	01
02			1 2	1 2	1 2			02	02	02
03			1 2	1 2	1 2			03	03	03
04			1 2	1 2	1 2			04	04	04
05			1 2	1 2	1 2			05	05	05
06			1 2	1 2	1 2			06	06	06
07			1 2	1 2	1 2			07	07	07
08			1 2	1 2	1 2			08	08	08
09			1 2	1 2	1 2			09	09	09
10			1 2	1 2	1 2			10	10	10

* CODES FOR Q. 3 RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/NEPHEW BY MARRIAGE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

** CODES FOR Q. 8 MARITAL STATUS:
1 = MARRIED/LIVING TOGETHER
2 = DIVORCED/SEPARATED
3 = WIDOWED
4 = NEVER MARRIED/ NEVER LIVED WITH A PARTNER

LINE NO.	SICK PERSON	BASIC MATERIAL NEEDS			SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS						
	IF AGE 15 YRS OR OLDER	IF AGE 5-17 YEARS			IF AGE 0-17 YEARS						
	Has (NAME) been very sick for at least three months during the past 12 months? By very sick I mean that (NAME) was too sick to work or do normal activities around the house for at least 3 of the past 12 months.	Does (NAME) have a blanket?	Does (NAME) have a pair of shoes?	Does (NAME) have at least two sets of clothing?	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother live in this house-hold? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER ***	IF MOTHER DOES NOT LIVE IN HOUSEHOLD Has (NAME)'s mother been very sick for at least 3 months during the past 12 months? By very sick I mean too sick to work or do normal activities around the house for at least 3 of the past 12 months?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father live in this house-hold? IF YES: What is his name? RECORD FATHER'S LINE NUMBER ***	IF FATHER DOES NOT LIVE IN HOUSEHOLD Has (NAME)'s father been very sick for at least 3 months during the past 12 months? By very sick I mean too sick to work or do normal activities around the house for at least 3 of the past 12 months?	CHECK Q.16 AND Q.19: IF YES TO Q.16 AND Q.19 (BOTH PARENTS ALIVE), CIRCLE '1', OTHERWISE CIRCLE '2'.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
	Y N DK	Y N DK	Y N DK	Y N DK	Y N DK		Y N DK	Y N DK		Y N DK	YES NO
01	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
02	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
03	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
04	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
05	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
06	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
07	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
08	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
09	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
10	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27

***Qs. 17 AND 20
RECORD '00' IF PARENT NOT LISTED
IN THE HOUSEHOLD SCHEDULE.

LINE NO.	BROTHERS AGE 0-17YEARS		SISTERS AGE 0-17YEARS		EDUCATION						BIRTH REGIS-TRATION
	IFAGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				IF AGE 0-4
	Does (NAME) have any natural brothers under the age of 18? By natural brothers, I mean of the same mother and same father.	Do all of (NAME)'s natural brothers who are under age 18 live in this household?	Does (NAME) have any natural sisters under the age of 18? By natural sisters, I mean of the same mother and same father.	Do all of (NAME)'s natural sisters who are under age 18 live in this household?	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?**** What is the highest grade (NAME) completed at that level?****	Did (NAME) attend school at any time during the 2004 - 2005 school year?	During this/that school year, what level and grade [is/was] (NAME) attending?****	Did (NAME) attend school at any time during the previous school year, that is, 2003 - 2004 ?	During that school year, what level and grade did (NAME) attend?****	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been regis-tered with the civil authority? *****
	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
	Y N DK	YES NO	Y N DK	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	C R N DK
01	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
02	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
03	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
04	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
05	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
06	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
07	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
08	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
09	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
10	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8

****CODES FOR Qs. 28, 30 AND 32

LEVEL	Pre-Primary =0	Primary =1	Lower Secondary =2	Upper Secondary =3	Higher =4	DK =8
G R A D E	00= ANY YEAR	01=GRADE 1 02=GRADE 2 03=GRADE 3 04=GRADE 4 05=GRADE 5 06=GRADE 6	07=GRADE 7 08=GRADE 8 09=GRADE 9	10=GRADE 10 11=GRADE 11 12=GRADE 12	01=YEAR 1 02=YEAR 2 03=YEAR 3 04=YEAR 4	98 = DON'T KNOW

00 = LESS THAN 1 YEAR COMPLETED CODE ONLY FOR Q. 28 IF NEEDED. NOT ALLOWED IN Q30 OR 32.

*****CODES FOR Q.33
C = CERTIFICATE
R = REGISTRATION
N = NEITHER
DK = DON'T KNOW

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? RECORD IN COMPLETED YEARS. IF LESS THAN ONE YEAR RECORD **00**.	IF AGE 15 YEARS OR OLDER What is (NAME)'s current marital status?**	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			M F	YES NO	YES NO	IN YEARS				
11			1 2	1 2	1 2			11	11	11
12			1 2	1 2	1 2			12	12	12
13			1 2	1 2	1 2			13	13	13
14			1 2	1 2	1 2			14	14	14
15			1 2	1 2	1 2			15	15	15
16			1 2	1 2	1 2			16	16	16
17			1 2	1 2	1 2			17	17	17
18			1 2	1 2	1 2			18	18	18
19			1 2	1 2	1 2			19	19	19
20			1 2	1 2	1 2			20	20	20

* CODES FOR Q. 3 RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/NEPHEW BY MARRIAGE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

** CODES FOR Q. 8
MARITAL STATUS:
1 = MARRIED/LIVING TOGETHER
2 = DIVORCED/SEPARATED
3 = WIDOWED
4 = NEVER MARRIED/ NEVER LIVED WITH A PARTNER

To make sure that I have a complete household listing

1) Are there any small children or infants we have not listed? YES → LIST NO

2) Any friends, domestic servants, or lodgers who are not members of your family but usually live here? YES → LIST NO

3) Did any guests or visitors sleep here last night who have not been listed? YES → LIST NO

LINE NO.	SICK PERSON	BASIC MATERIAL NEEDS			SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS						
	IF AGE 15 YRS OR OLDER	IF AGE 5-17 YEARS			IF AGE 0-17 YEARS						
	Has (NAME) been very sick for at least three months during the past 12 months? By very sick I mean that (NAME) was too sick to work or do normal activities around the house for at least 3 of the past 12 months.	Does (NAME) have a blanket?	Does (NAME) have a pair of shoes?	Does (NAME) have at least two sets of clothing?	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother live in this house-hold? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER ***	IF MOTHER DOES NOT LIVE IN HOUSEHOLD Has (NAME)'s mother been very sick for at least 3 months during the past 12 months? By very sick I mean too sick to work or do normal activities around the house for at least 3 of the past 12 months?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father live in this house-hold? IF YES: What is his name? RECORD FATHER'S LINE NUMBER ***	IF FATHER DOES NOT LIVE IN HOUSEHOLD Has (NAME)'s father been very sick for at least 3 months during the past 12 months? By very sick I mean too sick to work or do normal activities around the house for at least 3 of the past 12 months?	CHECK Q.16 AND Q.19: IF YES TO Q.16 AND Q.19 (BOTH PARENTS ALIVE), CIRCLE '1', OTHERWISE CIRCLE '2'.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
	Y N DK	Y N DK	Y N DK	Y N DK	Y N DK		Y N DK	Y N DK		Y N DK	YES NO
11	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
12	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
13	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
14	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
15	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
16	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
17	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
18	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
19	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27
20	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8 → GO TO 19		1 2 8	1 2 8 → GO TO 22		1 2 8	1 2 → GO TO 27

***Qs. 17 AND 20
RECORD '00' IF PARENT NOT LISTED
IN THE HOUSEHOLD SCHEDULE.

LINE NO.	BROTHERS AGE 0-17YEARS		SISTERS AGE 0-17YEARS		EDUCATION						BIRTH REGIS-TRATION
	IFAGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				IF AGE 0-4
	Does (NAME) have any natural brothers under the age of 18? By natural brothers, I mean of the same mother and same father.	Do all of (NAME)'s natural brothers who are under age 18 live in this household?	Does (NAME) have any natural sisters under the age of 18? By natural sisters, I mean of the same mother and same father.	Do all of (NAME)'s natural sisters who are under age 18 live in this household?	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?**** What is the highest grade (NAME) completed at that level?****	Did (NAME) attend school at any time during the 2004 - 2005 school year?	During this/that school year, what level and grade [is/was] (NAME) attending?****	Did (NAME) attend school at any time during the previous school year, that is, 2003 - 2004 ?	During that school year, what level and grade did (NAME) attend?****	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been regis-tered with the civil authority? *****
	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
	Y N DK	YES NO	Y N DK	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	C R N DK
11	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
12	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
13	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
14	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
15	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
16	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
17	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
18	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
19	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8
20	1 2 8 GO TO 25	1 2	1 2 8 GO TO 27	1 2	1 2 NEXT LINE		1 2 GO TO 31		1 2 NEXT LINE		1 2 3 8

TICK HERE IF CONTINUATION SHEET USED

☐

*****CODES FOR Q.33
C = CERTIFICATE
R = REGISTRATION
N = NEITHER
DK = DON'T KNOW

****CODES FOR Qs. 28, 30 AND 32

LEVEL	Pre-Primary =0	Primary =1	Lower Secondary =2	Upper Secondary =3	Higher =4	DK =8
G R A D E	00= ANY YEAR	01=GRADE 1 02=GRADE 2 03=GRADE 3 04=GRADE 4 05=GRADE 5 06=GRADE 6	07=GRADE 7 08=GRADE 8 09=GRADE 9	10=GRADE 10 11=GRADE 11 12=GRADE 12	01=YEAR 1 02=YEAR 2 03=YEAR 3 04=YEAR 4	98 = DON'T KNOW

00 = LESS THAN 1 YEAR COMPLETED CODE ONLY FOR Q. 28 IF NEEDED. NOT ALLOWED IN Q30 OR 32.

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	
50	Was any person of your household injured or killed in an accident in the past 12 months?		YES . . . . . 1 NO . . . . . 2 (GO TO 59)	
51	What is the name of the person(s) injured or killed? ENTER THE NAME OF EACH PERSON INJURED OR KILLED. IF THERE ARE MORE THAN TWO PEOPLE, USE AN ADDITIONAL QUESTIONNAIRE.			
52	NAME INJURED/KILLED	NAME _____	NAME _____	
53	Could you tell me in what type of accident (NAME) was injured or killed?	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 FIRE/BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE . . . . . 09 OTHER . . . . . 96 DON'T KNOW 98	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 FIRE/BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE . . . . . 09 OTHER . . . . . 96 DON'T KNOW 98	
54	Is (NAME) still alive?	YES . . . . . 1 NO . . . . . 2 (GO TO 57)	YES . . . . . 1 NO . . . . . 2 (GO TO 57)	
55	In your opinion, was (NAME)'s injury serious, moderate, or slight?	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	
56	IF ALIVE: RECORD LINE NUMBER FROM COLUMN (1).	LINE NUMBER . . . . . [ ][ ] (GO TO 58)	LINE NUMBER . . . . . [ ][ ] (GO TO 58)	
57	Was (NAME)'s death due to the accident?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	
58		GO BACK TO 52 IN NEXT COLUMN; OR, IF NO OTHER PERSON, GO TO 59.	GO TO 52 IN NEXT COLUMN OF ADDITIONAL QUESTIONNAIRE; OR, IF NO OTHER PERSON, GO TO 59.	
59	Is there any person who usually lives in your household who has any type of physical impairment?		YES . . . . . 1 NO . . . . . 2 (GO TO 65)	
60	Please give me the name of each individual who has a physical impairment. ENTER THE LINE NUMBER AND NAME OF EACH PERSON WITH A PHYSICAL IMPAIRMENT. IF THERE ARE MORE THAN TWO PEOPLE WITH A PHYSICAL IMPAIRMENT, USE ADDITIONAL QUESTIONNAIRE.			
61	LINE NUMBER AND NAME FROM COL. (1) AND (2).	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]	
62	Has (NAME) been physically impaired since birth, or was (NAME)'s impairment due to an illness or accident?	SINCE BIRTH . . . . . 1 (SKIP TO 64) FROM ILLNESS . . . . . 2 ACCIDENT . . . . . 3 DON'T KNOW 8	SINCE BIRTH . . . . . 1 (SKIP TO 64) FROM ILLNESS . . . . . 2 ACCIDENT . . . . . 3 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	
63	What type of accident?	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 SEVERE BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE . . . . . 09 OTHER . . . . . 96 DON'T KNOW 98	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 SEVERE BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE . . . . . 09 OTHER . . . . . 96 DON'T KNOW 98	
64		GO BACK TO 61 IN NEXT COLUMN; OR, IF NO OTHER PERSON, GO TO 65.	GO TO 61 IN NEXT COLUMN OF ADDITIONAL QUESTIONNAIRE; OR, IF NO OTHER PERSON, GO TO 65.	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
65	Please tell me if any member of your household is sick, has an illness or an injury now or at any time in the last 30 days?	YES . . . . . 1 NO . . . . . 2 (GO TO 101A) ←
66	Now I would like to ask you some questions about each person who is sick/injured now or at any time in the last 30 days. Could you tell me his/her/their name(s)? Then we will talk about one person at a time. ENTER THE LINE NUMBER AND NAME OF EACH PERSON SICK/INJURED. ASK ALL QUESTIONS ABOUT ALL OF THESE PEOPLE. (IF THERE ARE MORE THAN 3 PEOPLE, USE ADDITIONAL QUESTIONNAIRE).	

67	LINE NUMBER AND NAME FROM COL. (1) AND (2).	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
68	In your opinion, was (NAME)'s illness/injury serious, moderate, or slight?	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8
69	Was advice or treatment sought for (NAME)'s illness/injury?	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 101A) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 101A) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 101A) ←
70	Where was advice or treatment first sought for (NAME)'s illness/ injury? IF "HOSPITAL", PROBE: Do you mean a permanent building where health workers are present every day? IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? IF "HEALTH WORKER/ NURSE", PROBE: Did the health worker/ nurse visit you or did you go to his/her office/home? CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96

71	How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.70)? RECORD IN RIELS OR IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
72	How much in total was spent on (NAME)'s treatment at the (NAME (NAME OF PLACE FROM Q.70)? IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS; IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
73	After the first visit to (NAME OF PLACE FROM Q.70), was there a second visit to this place or was advice or treatment sought anywhere else for (NAME)'s illness/injury?	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 81)	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 81)	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 81)
74	For the second visit, where was advice or treatment sought for (NAME)'s illness/injury? IF "HOSPITAL", PROBE: Do you mean a permanent building where health workers are present every day? IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? IF "HEALTH WORKER/ NURSE", PROBE: Did the health worker/ nurse visit you or did you go to his/her office/home? CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96

75	How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.74)? RECORD IN RIELS OR IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
76	How much in total was spent on (NAME)'s treatment at the (NAME OF PLACE FROM Q.74)? IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS; IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
77	After the second visit to (NAME OF PLACE FROM Q.74), was there a third visit to this place or was advice or treatment sought anywhere else for (NAME)'s illness/injury?	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 81)	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 81)	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 81)
78	For the third visit, where was advice or treatment sought for (NAME)'s illness/injury? IF "HOSPITAL", PROBE: Do you mean a permanent building where health workers are present every day? IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? IF "HEALTH WORKER/ NURSE", PROBE: Did the health worker/ nurse visit you or did you go to his/her office/home? CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OTHER 96

79	How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.78)? RECORD IN RIELS OR IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
80	How much in total was spent on (NAME)'s treatment at the (NAME OF PLACE FROM Q.78)? IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS. IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
81	CHECK 71, 72 75 76 79 AND 80 (ALL COLUMNS): MONEY WAS SPENT [ ] ↓ NO EXPENSES IN CASH [ ] → 101A			
82	Where did the money come from to pay for transportation and treatment for the (two/three) member(s) of your household who had an illness/injury over the past 30 days?	WAGES/POCKET MONEY . . . . . 01 GIFT FROM RELATIVE/FRIEND . . . . . 02 SAVINGS . . . . . 03 BORROW FROM (NO INTEREST) . . . . . 04 LOAN (WITH INTEREST) . . . . . 05 SALE OF ASSETS . . . . . 06 OTHER 96		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101A	What is the main source of drinking water during the dry season for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 61 TANKER TRUCK/WATER VENDOR 71 BOTTLED WATER . . . . . 81 OTHER _____ 96 (SPECIFY)	→ 101E
101B	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	→ 101E
101C	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] ON PREMISES . . . . . 996 DON'T KNOW 998	→ 101E
101D	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN . . . . . 1 ADULT MAN . . . . . 2 FEMALE CHILD UNDER 15 YEARS OLD . . . . . 3 MALE CHILD UNDER 15 YEARS OLD . . . . . 4 OTHER _____ 6 (SPECIFY)	
101E	During the wet season, is the main source of drinking water for members of your household the same as during the dry season?	YES . . . . . 1 NO 2	→ 103A
102A	What is the main source of drinking water during the wet season for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 61 TANKER TRUCK/WATER VENDOR 71 BOTTLED WATER . . . . . 81 OTHER _____ 96 (SPECIFY)	→ 103A
102B	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	→ 103A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
102C	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] ON PREMISES . . . . . 996 DON'T KNOW 998	 → 103A
102D	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN . . . . . 1 ADULT MAN . . . . . 2 FEMALE CHILD UNDER 15 YEARS OLD . . . . . 3 MALE CHILD UNDER 15 YEARS OLD . . . . . 4 OTHER _____ 6 (SPECIFY)	
103A	What is the main source of water used by your household for other purposes such as cooking and handwashing?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 OTHER _____ 96 (SPECIFY)	 → 106
103B	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	 → 106
103C	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] ON PREMISES . . . . . 996 DON'T KNOW 998	 → 106
103D	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN . . . . . 1 ADULT MAN . . . . . 2 FEMALE CHILD UNDER 15 YEARS OLD . . . . . 3 MALE CHILD UNDER 15 YEARS OLD . . . . . 4 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	Do you treat your water in any way to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 108
107	What do you usually do to the water to make it safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE . . . . . B WHITE ALUM . . . . . C STRAIN THROUGH A CLOTH . . . . . D USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) . . . . . E SOLAR DISINFECTION . . . . . F LET IT STAND AND SETTLE . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
108	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . 14 FLUSH, DON'T KNOW WHERE . 15 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP) . . . . . 21 PIT LATRINE WITH SLAB 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 TOILET OVER WATER . . . . . 51 NO TOILET/FIELD/FOREST . . . . . 61 OTHER _____ 96 (SPECIFY)	→ 111
109	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 111
110	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . 95 DON'T KNOW 98	
111	Does your household have: Electricity? A radio? A television? A mobile telephone? A refrigerator? A wardrobe? A Sewing machine or loom?	YES NO ELECTRICITY . . . . . 1 2 RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 MOBILE TELEPHONE . . . . . 1 2 REFRIGERATOR . . . . . 1 2 WARDROBE . . . . . 1 2 SEWING MACHINE 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG . . . . . 02 BIOGAS . . . . . 03 KEROSENE . . . . . 04 COAL . . . . . 05 CHARCOAL . . . . . 06 WOOD . . . . . 07 STRAW/SHRUBS/GRASS . . . . . 08 AGRICULTURAL CROP . . . . . 09 ANIMAL DUNG . . . . . 10 OTHER _____ 96 (SPECIFY)	→ 114
113	In this household, is food cooked on a stove or an open fire? PROBE FOR TYPE.	OPEN FIRE EMBER PILES/STOVE WITHOUT CHIMNEY . . . . . 1 OPEN FIRE OR STOVE WITH CHIMNEY . . . . . 2 CLOSED STOVE WITH CHIMNEY . . . 3 OTHER _____ 6 (SPECIFY)	
114	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 UNDER THE HOUSE . . . . . 2 IN A SEPARATE BUILDING . . . . . 3 OUTDOORS . . . . . 4 OTHER _____ 6 (SPECIFY)	→ 116
115	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
116	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/CLAY . . . . . 11 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . 32 CERAMIC TILES . . . . . 33 CEMENT TILES . . . . . 34 CEMENT . . . . . 35 FLOATING HOUSE . . . . . 41 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
117	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF . . . . . 11 PALM/BAMBOO/THATCH . . . . . 12 RUDIMENTARY ROOFING PLASTIC SHEET . . . . . 21 WOOD PLANKS . . . . . 22 FINISHED ROOFING METAL . . . . . 31 CALAMINE/CEMENT FIBER . . . . . 32 CERAMIC TILES . . . . . 33 CLAY TILES . . . . . 34 CEMENT . . . . . 35 OTHER _____ 96 (SPECIFY)	
118	MAIN MATERIAL OF THE WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS . . . . . 11 PALM/BAMBOO/THATCH . . . . . 12 DIRT . . . . . 13 RUDIMENTARY WALLS BAMBOO WITH MUD . . . . . 21 STRAW WITH MUD . . . . . 22 STONE WITH MUD . . . . . 23 UNCOVERED ADOBE . . . . . 24 PLYWOOD . . . . . 25 CARTON . . . . . 26 REUSED WOOD . . . . . 27 METAL . . . . . 28 FINISHED WALLS CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 WOOD PLANKS . . . . . 35 OTHER _____ 96 (SPECIFY)	
119	TYPE OF WINDOWS. RECORD OBSERVATION.	YES NO ANY WINDOWS . . . . . 1 2 WINDOWS WITH GLASS . . . 1 2 WINDOWS WITH SCREENS . 1 2 WINDOWS WITH CURTAINS OR SHUTTERS 1 2	
120	How many rooms in this household are used for sleeping?	ROOMS . . . . . [ ][ ]	
121	Does any member of this household own: A bicycle or cyclo? A motorcycle or moped or motor scooter? A car or truck or van? A boat with a motor? A boat without a motor? An oxcart or horsecart?	YES NO BICYCLE/CYCLO . . . . . 1 2 MOTORCYCLE/SCOOTER . . . 1 2 CAR/TRUCK/VAN . . . . . 1 2 BOAT WITH MOTOR . . . . . 1 2 BOAT WITHOUT MOTOR . . . 1 2 OXCART 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	Does any member of this household own any land that can be used for agriculture?	YES . . . . . 1 NO 2	→ 124
123	How many hectares of agricultural land do members of this household own?	SQ. METER 1 [ ][ ][ ][ ] . [ ] A . . . . . 2 [ ][ ][ ][ ] . [ ] HECTARE 3 [ ][ ][ ][ ] . [ ] RAY . . . . . 4 [ ][ ][ ][ ] . [ ] KONG . . . 5 [ ][ ][ ][ ] . [ ] DON'T KNOW 999998	
124	Does this household own any livestock, herds, or farm animals?	YES . . . . . 1 NO 2	→ 126
125	How many of the following animals does this household own? Water buffalo? Cows or bulls? Horses? Goats? Pigs? Chickens or ducks? IF NONE, ENTER '00'. IF MORE THAN 97, ENTER '97'. IF UNKNOWN, ENTER '98'.	WATER BUFFALO . . . . . [ ][ ] COWS/BULLS . . . . . [ ][ ] HORSES . . . . . [ ][ ] GOATS . . . . . [ ][ ] PIGS . . . . . [ ][ ] CHICKENS/DUCKS . . . . . [ ][ ]	
126	Does your household have any mosquito nets that can be used while sleeping?	YES . . . . . 1 NO 2	→ 137
127	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS . . . . . [ ]	

		NET # 1	NET # 2	NET # 3	
128	ASK RESPONDENT TO SHOW YOU THE NET(S) IN THE HOUSEHOLD. IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED . . . 1 NOT OBSERVED . 2	OBSERVED . . . 1 NOT OBSERVED . 2	OBSERVED . . . 1 NOT OBSERVED . 2	
129	How long ago did your household obtain the mosquito net?	MONTHS AGO [ ][ ] MORE THAN 3 YEARS AGO . . . 95	MONTHS AGO [ ][ ] MORE THAN 3 YEARS AGO . . . 95	MONTHS AGO [ ][ ] MORE THAN 3 YEARS AGO . . . 95	
130	WHERE DID YOU GET THIS NET?	RELATIVE/FRIEND 1 GOVERNMENT/ NGO/PROJECT HEALTH SERVICE . . . 2 MARKET . . . . . 3 HAWKER . . . . . 4 OTHER . . . . . 6 DON'T KNOW . . . 8	RELATIVE/FRIEND 1 GOVERNMENT/ NGO/PROJECT HEALTH SERVICE . . . 2 MARKET . . . . . 3 HAWKER . . . . . 4 OTHER . . . . . 6 DON'T KNOW . . . 8	RELATIVE/FRIEND 1 GOVERNMENT/ NGO/PROJECT HEALTH SERVICE . . . 2 MARKET . . . . . 3 HAWKER . . . . . 4 OTHER . . . . . 6 DON'T KNOW . . . 8	
131	When you got the net, was it already treated with an insecticide to kill or repel mosquitos?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	
132	Since you got the mosquito net, was it ever soaked or dipped in a liquid to repel mosquitos or bugs?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) NOT SURE 8	
133	How long ago was the net last soaked or dipped? IF LESS THAN 1 MONTH, RECORD '00'.	MONTHS AGO . . . [ ][ ] MORE THAN 2 YEARS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 2 YEARS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 2 YEARS AGO . . . 95 NOT SURE 98	
134	Did anyone sleep under this mosquito net last night?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) NOT SURE 8	

		NET # 1	NET # 2	NET # 3	
135	Who slept under this mosquito net last night? RECORD NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE	NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ]	NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ]	NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ]	
136		GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS GO TO 137.	

		NET # 4	NET # 5	NET # 6	
128	ASK RESPONDENT TO SHOW YOU THE NET(S) IN THE HOUSEHOLD. IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED . . . 1 NOT OBSERVED . 2	OBSERVED . . . 1 NOT OBSERVED . 2	OBSERVED . . . 1 NOT OBSERVED . 2	
129	How long ago did your household obtain the mosquito net?	MONTHS AGO [ ][ ] MORE THAN 3 YEARS AGO . . . 95	MONTHS AGO [ ][ ] MORE THAN 3 YEARS AGO . . . 95	MONTHS AGO [ ][ ] MORE THAN 3 YEARS AGO . . . 95	
130	WHERE DID YOU GET THIS NET?	RELATIVE/FRIEND 1 GOVERNMENT/ NGO/PROJECT HEALTH SERVICE . . . 2 MARKET . . . . . 3 HAWKER . . . . . 4 OTHER . . . . . 6 DON'T KNOW . . . 8	RELATIVE/FRIEND 1 GOVERNMENT/ NGO/PROJECT HEALTH SERVICE . . . 2 MARKET . . . . . 3 HAWKER . . . . . 4 OTHER . . . . . 6 DON'T KNOW . . . 8	RELATIVE/FRIEND 1 GOVERNMENT/ NGO/PROJECT HEALTH SERVICE . . . 2 MARKET . . . . . 3 HAWKER . . . . . 4 OTHER . . . . . 6 DON'T KNOW . . . 8	
131	When you got the net, was it already treated with an insecticide to kill or repel mosquitos?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	
132	Since you got the mosquito net, was it ever soaked or dipped in a liquid to repel mosquitos or bugs?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) NOT SURE 8	
133	How long ago was the net last soaked or dipped? IF LESS THAN 1 MONTH, RECORD '00'.	MONTHS AGO . . . [ ][ ] MORE THAN 2 YEARS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 2 YEARS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 2 YEARS AGO . . . 95 NOT SURE 98	
134	Did anyone sleep under this mosquito net last night?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) NOT SURE 8	

		NET # 4	NET # 5	NET # 6	
135	Who slept under this mosquito net last night? RECORD NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE	NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ]	NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ]	NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ] NAME _____ LINE NUMBER [ ][ ]	
136		GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS GO TO 137.	
137	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE.	IODINE PRESENT . . . . . 1 NO IODINE . . . . . 2 NO SALT IN HH . . . . . 3 SALT NOT TESTED _____ 6 (SPECIFY REASON)			

RANDOM NUMBER TABLE FOR
SELECTION OF WOMAN AS RESPONDENT TO HOUSEHOLD RELATIONS MODULE

CHECK THE LAST DIGIT OF THE HOUSEHOLD NUMBER ON THE COVER PAGE OF THE HOUSEHOLD QUESTIONNAIRE.
THIS IS THE NUMBER OF THE ROW TO SELECT.
CHECK THE TOTAL NUMBER OF ELIGIBLE WOMEN IN COLUMN 9 OF THE HOUSEHOLD SCHEDULE.
THIS IS THE NUMBER OF THE COLUMN TO SELECT.
FIND THE BOX WHERE THE ROW AND THE COLUMN MEET AND CIRCLE THAT NUMBER.
THIS IS THE POSITION NUMBER OF THE WOMAN WHO WILL BE ASKED THE HOUSEHOLD RELATIONS MODULE.
IN COLUMN 9 OF THE HOUSEHOLD SCHEDULE,
DRAW A BOX AROUND THE LINE NUMBER OF THE ELIGIBLE WOMAN IN THAT POSITION.

FOR EXAMPLE, IF THE LAST DIGIT OF THE HOUSEHOLD NUMBER IS 6
AND THERE ARE 3 ELIGIBLE WOMEN, THE NUMBER IN THE BOX WHERE ROW 6 AND COLUMN 3 MEET IS 2.
NOW SUPPOSE THE THREE ELIGIBLE WOMEN'S LINE NUMBERS ARE '02', '03', AND '07',
THEN THE WOMAN WITH LINE NUMBER '03' IS SELECTED FOR THE HOUSEHOLD RELATIONS MODULE.

LAST DIGIT HH No.	Total number of eligible women in the household									
	1	2	3	4	5	6	7	8	9	10+
0	1	2	2	3	5	5	3	6	8	9
1	1	1	3	4	1	6	4	7	9	10
2	1	2	1	1	2	1	5	8	1	1
3	1	1	2	2	3	2	6	1	2	2
4	1	2	3	3	4	3	7	2	3	3
5	1	1	1	4	5	4	1	3	4	4
6	1	2	2	1	1	5	2	4	5	5
7	1	1	3	2	2	6	3	5	6	6
8	1	2	1	3	3	1	4	6	7	7
9	1	1	2	4	4	2	5	7	8	8

*** VOLUNTARY CONSENT STATEMENT FOR ANEMIA TESTING**

Hello, my name is _____. I'm from the Ministry of Health and Ministry of Planning.
As part of this survey, we are studying anemia among women and children. Anemia is a serious health problem that results from poor nutrition. This survey will assist the government to develop programs to prevent and treat anemia.

We request that you (and all children born in 2000 or later) participate in the anemia testing part of this survey and give a few drops of blood from a finger. The test uses disposable sterile instruments that are clean and completely safe. The blood will be analyzed with new equipment and the results of the test will be given to you right after the blood is taken. The results will be kept confidential.

If you decide not to have the test done, it is your decision and we will respect your decision.

Please tell me if you agree for yourself (and NAME OF CHILDREN) to participate in the anemia test.

GO TO COLUMN (160). CIRCLE THE APPROPRIATE CODE AND SIGN.

*** VOLUNTARY CONSENT STATEMENT FOR HIV TESTING OF ADULTS AGE 18 OR OLDER**

Hello, my name is _____. I'm from the Ministry of Health and Ministry of Planning.
As part of this survey, we are studying HIV/AIDS among women and men age 15 to 49 years.
As you may know, HIV is the virus that causes AIDS, and AIDS is a serious illness that often leads to death.
We are conducting tests to measure the extent of the disease in Cambodia. The results of the survey will assist the government in developing programs for preventing HIV and AIDS.

We request that you participate in the HIV testing part of this survey by permitting us to take a few drops of blood from your finger.
Only disposable, sterile instruments that are clean and completely safe will be used.

The blood sample will be sent to a laboratory to be analyzed. To ensure confidentiality, your name will not be attached to the blood sample.
The results will be completely anonymous and for this reason we cannot provide you with results of the test.
However, if you would like to know your HIV status then we will give you a coupon for a free test at a Voluntary Counseling and Testing center.

I hope you will agree to participate in the testing. But if you decide not to have the test done, it is your right and I will respect your decision.

Do you have any questions about this?

Please tell me if you agree to participate in the HIV test.

GO TO COLUMN (172). CIRCLE THE APPROPRIATE CODE AND SIGN.

THE RESPONDENT HAS THE RIGHT TO REFUSE THE HIV TEST, AND THEREFORE SHOULD NOT BE FORCED.

*** VOLUNTARY CONSENT STATEMENT FOR HIV TESTING OF YOUNG WOMEN AND MEN AGE 15-17 YEARS**

STEP ONE: ASK CONSENT OF THE PARENT OR RESPONSIBLE ADULT.

The study of HIV/AIDS includes young women and men starting at age 15. For testing of young women and men age 15-17 we ask that the parent or responsible adult provide their consent, as well as the eligible young woman or young man.

We request that (NAME) participate in the HIV testing part of the survey by permitting us to take a few drops of blood from her or his finger.
Only disposable, sterile instruments that are clean and completely safe will be used.

The blood sample will be sent to a laboratory to be analyzed. To ensure confidentiality, no name or personally identifying information will be attached to the blood sample. The results will be completely anonymous and for this reason we cannot provide results of the test.
However, if (NAME) wishes to know their status then we will give (NAME) a coupon for a free test at a Voluntary Counseling and Testing center.

Please tell me if you agree for (NAME) to participate in the HIV test.

GO TO COLUMN (171). CIRCLE THE APPROPRIATE CODE AND SIGN.

STEP TWO: ASK CONSENT OF THE YOUNG WOMAN OR YOUNG MAN.
IF THE PARENT OR RESPONSIBLE ADULT AGREES THAT THE YOUNG PERSON CAN BE TESTED,
READ THE STATEMENT TO THE YOUNG PERSON.

As part of this survey, we are studying HIV/AIDS among women and men age 15 to 49 years.
As you may know, HIV is the virus that causes AIDS, and AIDS is a serious illness that often leads to death.
We are conducting tests to measure the extent of the disease in Cambodia. The results of the survey will assist the government in developing programs for preventing HIV and AIDS.

We request that you participate in the HIV testing part of this survey by permitting us to take a few drops of blood from your finger.
Only disposable, sterile instruments that are clean and completely safe will be used.

The blood sample will be sent to a laboratory to be analyzed. To ensure confidentiality, your name will not be attached to the blood sample.
The results will be completely anonymous and for this reason we cannot provide you with results of the test.
However, if you would like to know your HIV status then we will give you a coupon for a free test at a Voluntary Counseling and Testing center.

I hope you will agree to participate in the testing. But if you decide not to have the test done, it is your right and I will respect your decision.

Do you have any questions about this?

Please tell me if you agree to participate in the HIV test.

GO TO COLUMN (172). CIRCLE THE APPROPRIATE CODE AND SIGN.

THE RESPONDENT HAS THE RIGHT TO REFUSE THE HIV TEST, AND THEREFORE SHOULD NOT BE FORCED.

GIVE EACH ELIGIBLE PERSON A COUPON FOR A FREE HIV TEST AT A VOLUNTARY COUNSELING AND TESTING CENTER.

HEIGHT AND WEIGHT

CHECK COVER PAGE: IS HOUSEHOLD SELECTED FOR HEIGHT AND WEIGHT?

YES ☐ → REQUEST PERMISSION MEASURE HEIGHT/WEIGHT OF WOMEN AND CHILDREN

NO ☐ → GO TO NEXT PAGE

CHECK COLUMNS (9) AND (11): RECORD THE LINE NUMBER, NAME AND AGE OF ALL WOMEN AGE 15-49 AND ALL CHILDREN UNDER AGE 6.

WOMEN 15-49				WEIGHT AND HEIGHT MEASUREMENT OF WOMEN 15-49			
LINE NO. FROM COL. (9)	NAME FROM COL. (2)	AGE FROM COL. (7)	What is (NAME'S) date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(150)	(151)	(152)	(153)	(154)	(155)	(156)	(157)
		YEARS					

CHILDREN UNDER AGE 6				WEIGHT AND HEIGHT MEASUREMENT OF CHILDREN BORN IN 2000 OR LATER			
LINE NO. FROM COL. (11)	NAME FROM COL. (2)	AGE FROM COL. (7)	What is (NAME'S) date of birth?*	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
			DAY MONTH YEAR			LYING STAND.	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	

* COPY MONTH AND YEAR FROM 215 IN MOTHER'S BIRTH HISTORY AND ASK DAY OF BIRTH.
FOR CHILDREN NOT INCLUDED IN ANY BIRTH HISTORY, ASK DAY, MONTH AND YEAR.

TICK HERE IF CONTINUATION SHEET USED ☐

ANEMIA TESTING

CHECK COVER PAGE: IS HOUSEHOLD SELECTED FOR ANEMIA TESTING?

YES → REQUEST CONSENT MEASURE HEMOGLOBIN OF WOMEN AND CHILDREN

NO → GO TO HIV TESTING PAGE

HEMOGLOBIN MEASUREMENT OF WOMEN 15-49					
CHECK COLUMN (152):	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE	READ CONSENT STATEMENT TO WOMAN/PARENT/RESPONSIBLE ADULT* CIRCLE CODE (AND SIGN)	HEMOGLOBIN LEVEL (G/DL)	CURRENTLY PREGNANT	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(158)	(159)	(160)	(161)	(162)	(163)
AGE 15-17 1 GO TO 160 ; AGE 18-49 2		GRANTED 1 SIGN _____ ; REFUSED 2 NEXT LINE	.	YES 1 ; NO/DK 2	
1 GO TO 160 ; 2		1 SIGN _____ ; 2 NEXT LINE	.	1 ; 2	
1 GO TO 160 ; 2		1 SIGN _____ ; 2 NEXT LINE	.	1 ; 2	

HEMOGLOBIN MEASUREMENT OF CHILDREN BORN IN 2000 OR LATER					
CHECK COLUMN (153): BORN IN MONTH OF INTERVIEW OR PREVIOUS 5 MONTHS 1 NEXT CHILD ; OTHER 2	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE	READ CONSENT STATEMENT TO PARENT/RESPONSIBLE ADULT* CIRCLE CODE (AND SIGN)	HEMOGLOBIN LEVEL (G/DL)		RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
		GRANTED 1 SIGN _____ ; REFUSED 2 NEXT LINE	.		
1 NEXT CHILD ; 2		1 SIGN _____ ; 2 NEXT LINE	.		
1 NEXT CHILD ; 2		1 SIGN _____ ; 2 NEXT LINE	.		
1 NEXT CHILD ; 2		1 SIGN _____ ; 2 NEXT LINE	.		
1 NEXT CHILD ; 2		1 SIGN _____ ; 2 NEXT LINE	.		
1 NEXT CHILD ; 2		1 SIGN _____ ; 2 NEXT LINE	.		

164	CHECK 161 AND 162: NUMBER OF PERSONS WITH HEMOGLOBIN LEVEL BELOW THE CUTOFF POINT* ONE OR MORE ☐ → GIVE EACH RESPONSIBLE ADULT/PARENT RESULT OF HEMOGLOBIN MEASUREMENT AND CONTINUE WITH 165.** NONE ☐ → GIVE EACH RESPONSIBLE ADULT/PARENT RESULT OF HEMOGLOBIN MEASUREMENT AND END INTERVIEW.
165	We detected a low level of hemoglobin in (your blood/the blood of NAME OF CHILD(REN)). This indicates that (you/NAME OF CHILD(REN)) have developed severe anemia, which is a serious health problem. We recommend that you visit a health facility as soon as possible to be examined and obtain proper treatment. GIVE THE ADULT THE REFERENCE FORM FOR ANEMIA

* The cutoff point is 9 g/dl for pregnant women and 7 g/dl for children and women who are not pregnant (or don't know if they are pregnant).

** If more than one woman or child is below the cutoff point, read the statement in Q.165 to each woman who is below the cutoff point and to each parent/responsible adult of a child who is below the cutoff point.

HIV TESTING - WOMEN AND MEN

CHECK COVER PAGE: IS HOUSEHOLD SELECTED FOR HIV TESTING?

YES ☐ → REQUEST CONSENT
COLLECT DRIED BLOOD SPOTS
FROM WOMEN AND MEN

NO ☐ → END OF HOUSEHOLD QUESTIONNAIRE

CHECK COLUMNS (9) AND (10): RECORD THE LINE NUMBER, SEX AND AGE OF ALL WOMEN AGE 15-49 AND MEN AGE 15-49. THIS PAGE WILL BE DESTROYED IN OFFICE BEFORE TEST RESULTS ARE ADDED TO DATA FILE.

LINE NO. FROM COL. (9) AND (10)	SEX FROM COL. (4)	AGE FROM COL. (7)	CHECK AGE FROM COL. (168):	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE	READ CONSENT STATEMENT TO PARENT/RESPONSIBLE ADULT CIRCLE CODE (AND SIGN)	READ CONSENT STATEMENT TO MAN/WOMAN CIRCLE CODE (AND SIGN)	RESULT 1 SAMPLE TAKEN 2 REFUSED 3 NOT PRESENT 4 TECH. PROBLEM 6 OTHER (SPECIFY)	SAMPLE BAR CODE
(166)	(167)	(168)	(169)	(170)	(171)	(172)	(173)	(174)
☐☐	M F 1 2	YEARS ☐☐	AGE 15-17 AGE 18+ 1 2 GO TO 172	☐☐	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	☐ _____	PASTE FIRST LABEL HERE PASTE SECOND LABEL ON FILTER PAPER PASTE THIRD LABEL ON BLOOD SAMPLE TRANSMITTAL FORM
☐☐	M F 1 2	YEARS ☐☐	AGE 15-17 AGE 18+ 1 2 GO TO 172	☐☐	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	☐ _____	PASTE FIRST LABEL HERE PASTE SECOND LABEL ON FILTER PAPER PASTE THIRD LABEL ON BLOOD SAMPLE TRANSMITTAL FORM
☐☐	M F 1 2	YEARS ☐☐	AGE 15-17 AGE 18+ 1 2 GO TO 172	☐☐	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	☐ _____	PASTE FIRST LABEL HERE PASTE SECOND LABEL ON FILTER PAPER PASTE THIRD LABEL ON BLOOD SAMPLE TRANSMITTAL FORM
☐☐	M F 1 2	YEARS ☐☐	AGE 15-17 AGE 18+ 1 2 GO TO 172	☐☐	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	☐ _____	PASTE FIRST LABEL HERE PASTE SECOND LABEL ON FILTER PAPER PASTE THIRD LABEL ON BLOOD SAMPLE TRANSMITTAL FORM
☐☐	M F 1 2	YEARS ☐☐	AGE 15-17 AGE 18+ 1 2 GO TO 172	☐☐	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	☐ _____	PASTE FIRST LABEL HERE PASTE SECOND LABEL ON FILTER PAPER PASTE THIRD LABEL ON BLOOD SAMPLE TRANSMITTAL FORM

LINE NO. FROM COL. (9) AND (10)	SEX FROM COL. (4)	AGE FROM COL. (7)	CHECK AGE FROM COL. (168):	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE	READ CONSENT STATEMENT TO PARENT/RESPONSIBLE ADULT CIRCLE CODE (AND SIGN)	READ CONSENT STATEMENT TO MAN/WOMAN CIRCLE CODE (AND SIGN)	RESULT 1 SAMPLE TAKEN 2 REFUSED 3 NOT PRESENT 4 TECH. PROBLEM 6 OTHER (SPECIFY)	SAMPLE BAR CODE
(166)	(167)	(168)	(169)	(170)	(171)	(172)	(173)	(174)
	M F 1 2	YEARS	AGE 15-17 AGE 18+ 1 2 GO TO 172		GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	_____	PASTE FIRST LABEL HERE PASTE SECOND LABEL ON FILTER PAPER PASTE THIRD LABEL ON BLOOD SAMPLE TRANSMITTAL FORM
	M F 1 2	YEARS	AGE 15-17 AGE 18+ 1 2 GO TO 172		GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	GRANTED REFUSED 1 2 SIGN _____ NEXT LINE	_____	PASTE FIRST LABEL HERE PASTE SECOND LABEL ON FILTER PAPER PASTE THIRD LABEL ON BLOOD SAMPLE TRANSMITTAL FORM

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

CAMBODIA DEMOGRAPHIC AND HEALTH SURVEY 2005
WOMAN'S QUESTIONNAIRE

MINISTRY OF PLANNING
NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH
NATIONAL INSTITUTE OF PUBLIC HEALTH

DOMAIN	DOMAIN
PROVINCE _____	PROVINCE
DISTRICT _____	DISTRICT
COMMUNE _____	COMMUNE
VILLAGE _____	VILLAGE
NAME OF HOUSEHOLD HEAD _____	
CLUSTER NUMBER	CLUSTER
HOUSEHOLD NUMBER	HOUSEHOLD
NAME AND LINE NUMBER OF WOMAN _____	

CHECK COVER PAGE OF HOUSEHOLD QUESTIONNAIRE:		
IS THIS HOUSEHOLD SELECTED FOR CAUSE OF DEATH MODULE ?	(YES = 1, NO = 2)	CAUSE OF DEATH
IS THIS HOUSEHOLD SELECTED FOR WOMEN'S STATUS MODULE?	(YES = 1, NO = 2)	WOMEN'S STATUS
IS THIS HOUSEHOLD SELECTED FOR HOUSEHOLD RELATIONS MODULE?	(YES = 1, NO = 2)	HOUSEHOLD FOR HH RELATIONS
IS THIS WOMAN SELECTED FOR HOUSEHOLD RELATIONS MODULE?	(YES = 1, NO = 2)	WOMAN FOR HH RELATIONS

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY
				MONTH
				YEAR 2 0
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER
RESULT *	_____	_____	_____	RESULT *
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the Ministry of Health and Ministry of Planning. We are conducting a national survey about the health of women and children. We would very much appreciate your participation in this survey. I would like to ask you about your health (and the health of your children). This information will help the government to plan health services. The survey usually takes about 45 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 105
104	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
105	In what month and year were you born? IF RESPONDENT DOES NOT KNOW GREGORIAN MONTH AND YEAR OF BIRTH, ASK FOR KHMER MONTH AND YEAR. USE DATE CONVERSION CHART. _____ (SPECIFY KHMER MONTH AND YEAR OF BIRTH)	GREGORIAN MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 GREGORIAN YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? IF GREGORIAN DATE IS RECORDED IN 105, COMPARE AGE TO DATE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
107	Have you ever attended school?	YES . . . . . 1 NO 2	→ 111
108	What is the highest level of school you attended: primary, lower secondary, upper secondary, or higher?	PRIMARY . . . . . 1 LOWER SECONDARY . . . . . 2 UPPER SECONDARY . . . . . 3 HIGHER 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
109	What is the highest grade you completed at that level?	GRADE . . . . . [ ][ ]	
110	CHECK 108: PRIMARY [ ] ↓ SECONDARY OR HIGHER [ ] → 114		
111	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
112	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
113	CHECK 111: CODE '2', '3' OR '4' CIRCLED [ ] ↓ CODE '1' OR '5' CIRCLED [ ] → 115		
114	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
115	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116A	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS . . . . . [ ][ ] NONE 00	→ 117
116B	In the last 12 months, have you been away from your home community for more than one month at a time?	YES . . . . . 1 NO 2	
117	What is your religion?	BUDDHIST . . . . . 1 MOSLEM . . . . . 2 CHRISTIAN . . . . . 3 OTHER 4	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons are living with you? And how many daughters are living with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . [ ][ ]	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: To make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS [ ] ↓ NO BIRTHS [ ] →		226

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday? IF GREG. DATE OF BIRTH IS NOT KNOWN, ASK FOR KHMER DATE OF BIRTH AND CONVERT.	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died ? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3	
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2

212 What name was given to your next baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday? IF GREG. DATE OF BIRTH IS NOT KNOWN, ASK FOR KHMER DATE OF BIRTH AND CONVERT.	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 NO 2
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 NO 2
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 NO 2
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 NO 2
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 NO 2

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES . . . . . 1 NO 2

223 COMPARE 208 WITH NUMBER OF BITHS IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME [ ] → CHECK:

NUMBERS ARE DIFFERENT [ ] → (PROBE AND RECONCILE)

CHECK:

FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. [ ]

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. [ ]

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. [ ]

FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS. [ ]

224 CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 2000 OR LATER. IF NONE, RECORD '0'. [ ]

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 229
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
228	At the time you became pregnant did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 237
230	When did the last such pregnancy end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
231	CHECK 230: LAST PREGNANCY ENDED IN JAN. 2000 OR LATER [ ] ↓ LAST PREGNANCY ENDED BEFORE JAN. 2000 [ ]		→ 233A
232	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
232A	Did this pregnancy end in an induced abortion?	YES . . . . . 1 NO 2	→ 233
232B	In the seven days after the abortion did you experience: fever? excessive bleeding?	YES NO DK FEVER . . . . . 1 2 8 BLEEDING 1 2 8	
232C	Did anyone help you to initiate the induced abortion? IF YES: Who helped you to initiate the abortion? Anyone else? RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER HEALTH PROF. . . . . D OTHER PERSON TRADITIONAL BIRTH ATTENDANT . E PHARMACIST . . . . . F KRU KHMER/MAGICIAN . . . . . G RELATIVE/FRIEND . . . . . H OTHER _____ X (SPECIFY) NO ONE . . . . . Y	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
232D	Where did the induced abortion take place? IF HOSPITAL, PROBE: Do you mean a permanent building where health workers are present everyday? IF YES: Was it a provincial hospital, district hospital, health center, or private hospital? WRITE THE NAME OF THE PLACE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC . . . . . 17 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 OTHER PRIVATE MEDICAL . . . . . 26 HOME YOUR HOME . . . . . 31 OTHER HOME . . . . . 32 OTHER PLACE _____ 96 (SPECIFY)	
232E	Was anyone present to help you at the time of the abortion? IF YES: Who was present to help you? Anyone else? RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER HEALTH PROF. . . . . D OTHER PERSON TRADITIONAL BIRTH ATTENDANT . E PHARMACIST . . . . . F KRU KHMER/MAGICIAN . . . . . G RELATIVE/FRIEND . . . . . H OTHER PERSON _____ X (SPECIFY) NO ONE . . . . . Y	
233	Have you had any other pregnancies that miscarried, were aborted, or ended in a still birth?	YES . . . . . 1 NO 2	→ 237
233A	In total, how many induced abortions have you had in your lifetime? IF NONE, RECORD '00'.	TOTAL NUMBER ABORTIONS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
237	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
238	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 240
239	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
240	Are you the primary care giver for any of your own children or any other children?	YES . . . . . 1 NO 2	→ 301
241	Are any of these children for whom you are the primary caregiver under the age of 18 years?	YES . . . . . 1 NO 2	→ 301
242	Now I would like to ask you about the children who are under the age of 18 years and for whom you are the primary caregiver. Have you made arrangements for someone to care for these children in the event that you fall sick or are unable to care for them?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about birth spacing - the various ways or methods that a couple can use to delay or avoid a pregnancy. CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	DAILY PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	MONTHLY PILL or CHINESE PILL Women can take a pill once a month to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	LACTATIONAL AMENORRHEA METHOD (LAM)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) ↓ AT LEAST ONE "YES" (EVER USED) → 307		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 → 329
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN . . . . . [ ][ ]	
308	CHECK 302: WOMAN NOT STERILIZED [ ] ↓ WOMAN STERILIZED [ ]		→ 311A
309	CHECK 226: NOT PREGNANT OR UNSURE [ ] ↓ PREGNANT [ ]		→ 329
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 → 329
311 311A	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST. CIRCLE 'A' FOR FEMALE STERILIZATION.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B DAILY PILL . . . . . C MONTHLY PILL . . . . . D IUD . . . . . E INJECTABLES . . . . . F IMPLANTS . . . . . G CONDOM . . . . . H FEMALE CONDOM . . . . . I DIAPHRAGM . . . . . J FOAM/JELLY . . . . . K LACTATIONAL AMEN. METHOD . . . . . L RHYTHM METHOD . . . . . M WITHDRAWAL . . . . . N OTHER _____ X (SPECIFY)	→ 313 → 312C → 312C → 316A
312	May I see the package of (pills/condoms) you are using? RECORD NAME OF BRAND.	PACKAGE SEEN . . . . . 01 BRAND NAME _____ [ ][ ] (SPECIFY) PACKAGE NOT SEEN 02	→ 312B
312A	Do you know the brand name of the (pills/condoms) you are using? RECORD NAME OF BRAND.	BRAND NAME _____ [ ][ ] (SPECIFY) DON'T KNOW 98	
312B	How many (monthly pill cycles/packages of condoms) did you get the last time?	NUMBER OF CYCLES/PACKAGES [ ][ ][ ] DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312C	The last time you obtained (CURRENT METHOD IN 311), how much did you pay in total, including the cost of the method and any consultation you may have had?	RIELS . . . . . 1 [ ][ ][ ][ ][ ] DOLLARS . . 2 [ ][ ][ ][ ][ ] FREE . . . . . 999995 DON'T KNOW 999998	→ 316A
313	In what facility did the sterilization take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 OTHER PRIV. MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
315	CHECK 311/311A: CODE 'A' CIRCLED → Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'A' NOT CIRCLED → Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
315A	How much did you pay in total for the sterilization, including any consultation you may have had?	RIELS . . . . . 1 [ ][ ][ ][ ][ ] DOLLARS . . 2 [ ][ ][ ][ ][ ] FREE . . . . . 999995 DON'T KNOW 999998	
316	In what month and year was the sterilization performed?		
316A	In what month and year did you start using (CURRENT METHOD) continuously? PROBE: For how long have you been using (CURRENT METHOD) now without stopping? IF RESPONDENT DOES NOT KNOW GREGORIAN YEAR, USE CONVERSION CHART TO FIND GREGORIAN MONTH AND YEAR.	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
316B	CHECK 316/316A, 215 AND 230: DID RESPONDENT GIVE BIRTH OR HAVE A PREGNANCY TERMINATION AFTER MONTH AND YEAR REPORTED IN 316/316A ? YES → GO BACK TO 316/316A, PROBE AND CORRECT THE MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION). NO →		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
320	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 DAILY PILL . . . . . 03 MONTHLY PILL . . . . . 04 IUD . . . . . 05 INJECTABLES . . . . . 06 IMPLANTS . . . . . 07 CONDOM . . . . . 08 FEMALE CONDOM . . . . . 09 DIAPHRAGM . . . . . 10 FOAM/JELLY . . . . . 11 LACTATIONAL AMEN. METHOD . . . 12 RHYTHM METHOD . . . . . 13 WITHDRAWAL . . . . . 14 OTHER METHOD 96	→ 329 → 322 → 331 → 328 → 325 → 331
321	Where did you obtain (CURRENT METHOD) when you started using it in (DATE in 316A) ? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 OTHER PRIV. MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP .... 31 COMMUNITY DISTRIBUTOR . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	
322	Were you told about side effects or problems you might have with (CURRENT METHOD) when obtained it from (SOURCE OF METHOD IN 321) in (DATE IN 316A) ?	YES . . . . . 1 NO 2	→ 324
323	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	 → 325
324	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
325	Were you told about other methods of birth spacing you could use?	YES . . . . . 1 NO 2	→ 327
326	Were you ever told by a health or family planning worker about other methods of birth spacing that you could use?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
327	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 DAILY PILL . . . . . 03 MONTHLY PILL . . . . . 04 IUD . . . . . 05 INJECTABLES . . . . . 06 IMPLANTS . . . . . 07 CONDOM . . . . . 08 FEMALE CONDOM . . . . . 09 DIAPHRAGM . . . . . 10 FOAM/JELLY . . . . . 11 LACTATIONAL AMEN. METHOD . . . 12 RHYTHM METHOD . . . . . 13 WITHDRAWAL . . . . . 14 OTHER METHOD 96	01, 02 → 331 12, 13, 14, 96 → 331
328	Where did you obtain (CURRENT METHOD) the last time? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 OTHER PRIV. MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP .... 31 COMMUNITY DISTRIBUTOR . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	11, 12, 13, 14, 15, 16, 17, 21, 22, 26, 31, 32, 33, 96 → 331
329	Do you know of a place where you can obtain a method of birth spacing?	YES . . . . . 1 NO 2	2 → 331

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
330	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL PLACES MENTIONED.	PUBLIC MEDICAL SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSPITAL (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E MILITARY HOSPITAL . . . . . F OTHER PUBLIC _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . H PRIVATE CLINIC . . . . . I OTHER PRIV. MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP .... K COMMUNITY DISTRIBUTOR . . . . . L FRIEND/RELATIVE . . . . . M OTHER _____ X (SPECIFY)	
331	In the last 12 months, were you visited by a fieldworker who talked to you about family planning?	YES . . . . . 1 NO 2	
332	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	→ 401
333	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY, POSTNATAL CARE AND CHILDREN'S NUTRITION

401	CHECK 224: ONE OR MORE BIRTHS IN 2000 OR LATER ↓		NO BIRTHS IN 2000 OR LATER →	550
402	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2000 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)			
403	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . . . [ ][ ]	SECOND-FROM-LAST BIRTH LINE NUMBER . . . . . [ ][ ]
404	FROM 212 AND 216	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 (SKIP TO 407) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 407)	THEN . . . . . 1 (SKIP TO 429) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 429)	THEN . . . . . 1 (SKIP TO 429) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 429)
406	How much longer would you have liked to wait?	MONTHS 1 [ ][ ] YEARS 2 [ ][ ] DON'T KNOW 998	MONTHS 1 [ ][ ] YEARS 2 [ ][ ] DON'T KNOW 998	MONTHS 1 [ ][ ] YEARS 2 [ ][ ] DON'T KNOW 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D OTHER _____ X (SPECIFY) NO ONE . . . . . Y (SKIP TO 414)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
408	Where did you receive antenatal care for this pregnancy? CIRCLE ALL MENTIONED. IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . A MIDWIFE/ TBA HOME . . . . . B OTHER HOME . . . . . C PUBLIC SECTOR NATL HOSP (PP) . . . . . D PROV HOSP (RH) E DIST HOSP (RH) . . . . . F HLTH CENTER . . . . . G HLTH POST . . . . . H OUTREACH . . . . . I MILITARY HOSP . . . . . J OTHER PUBLIC _____ K (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . . . L PRIV. CLINIC . . . . . M OTHER PRIVATE MED. _____ N (SPECIFY) OTHER _____ X (SPECIFY)		
409	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . . . [ ][ ] DON'T KNOW 98		
410	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . . [ ][ ] DON'T KNOW 98		
411	As part of your antenatal care during this pregnancy, were any of the following done at least once? Were you weighed? Was your height taken? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO WEIGHT . . . . . 1 2 HEIGHT . . . . . 1 2 BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD 1 2		
412	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 414) ←┤ DON'T KNOW 8		
413	Were you told where to go if you had any of these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
414	Do you have a card where your vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 YES, NOT SEEN . . . . . 2 (SKIP TO 415) ←┤ NO CARD 3		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
414A	COPY TETANUS VACCINATION DATE FOR EACH VACCINE FROM THE CARD. WRITE '44' IN DAY COLUMN IF CARD SHOWS VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.	D D M M Y Y TT1 . . . . TT2 . . . . TT3 . . . . TT4 . . . . TT5		
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 418) DON'T KNOW 8		
416	During this pregnancy, how many times did you get this tetanus injection?	TIMES . . . . . . DON'T KNOW 8		
417	CHECK 416:	2 OR MORE TIMES (SKIP TO 420) OTHER		
418	At any time before this pregnancy, did you receive any tetanus injections?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW 8		
419	Before this pregnancy, how many times did you get a tetanus injection?	TIMES . . . . . . DON'T KNOW 8		
420	Where did you receive most of your tetanus vaccinations?	OUTREACH ACTIVITIES . . . . . 1 HEALTH CENTER . . . . . 2 NATL HOSP/ PROV OR DIST TOWN . . . . . 3 PRIV PRACTICE/ PRIV CLINIC . . . . . 4 OTHER 6		
421	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLETS.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 422A) DON'T KNOW 8		
422	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER DAYS DON'T KNOW 998		
422A	During this pregnancy, did you take any drug for intestinal parasites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
423	During this pregnancy, did you have difficulty with your vision during daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
424	During this pregnancy, did you suffer from night blindness?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
429	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
430	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432) ← DON'T KNOW 8
431	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99998	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99998	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99998
432	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D RELATIVE/FRIEND . . . . . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D RELATIVE/FRIEND . . . . . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D RELATIVE/FRIEND . . . . . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
433	Where did you give birth to (NAME)? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . 11 MIDWIFE/ TBA HOME . . . . . 12 OTHER HOME . . . . . 13 (SKIP TO 440) PUBLIC SECTOR NATL HOSP (PP) . . . . . 21 PROV HOSP (RH) . . . . . 22 DIST HOSP (RH) . . . . . 23 HLTH CENTER . . . . . 24 HLTH POST . . . . . 25 MILITARY HOSP . . . . . 26 OTHER PUBLIC _____ 27 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . . . 31 PRIV. CLINIC . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 440)	HOME YOUR HOME . . . . . 11 MIDWIFE/ TBA HOME . . . . . 12 OTHER HOME . . . . . 13 (SKIP TO 441) PUBLIC SECTOR NATL HOSP (PP) . . . . . 21 PROV HOSP (RH) . . . . . 22 DIST HOSP (RH) . . . . . 23 HLTH CENTER . . . . . 24 HLTH POST . . . . . 25 MILITARY HOSP . . . . . 26 OTHER PUBLIC _____ 27 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . . . 31 PRIV. CLINIC . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 441)	HOME YOUR HOME . . . . . 11 MIDWIFE/ TBA HOME . . . . . 12 OTHER HOME . . . . . 13 (SKIP TO 441) PUBLIC SECTOR NATL HOSP (PP) . . . . . 21 PROV HOSP (RH) . . . . . 22 DIST HOSP (RH) . . . . . 23 HLTH CENTER . . . . . 24 HLTH POST . . . . . 25 MILITARY HOSP . . . . . 26 OTHER PUBLIC _____ 27 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . . . 31 PRIV. CLINIC . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 441)
434	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . 1 [ ][ ] DAYS . . . . 2 [ ][ ] WEEKS . . . . 3 [ ][ ] DON'T KNOW 998	HOURS . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . 3 [ ][ ] DON'T KNOW 998	HOURS . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . 3 [ ][ ] DON'T KNOW 998
435	Was (NAME) delivered by caesarean section?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
436	Before you were discharged after (NAME) was born, did a health professional check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 439)	YES . . . . . 1 (SKIP TO 451) NO 2	YES . . . . . 1 (SKIP TO 451) NO 2
437	How many hours, days or weeks after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . 1 [ ][ ] DAYS . . . . 2 [ ][ ] WEEKS . . . . 3 [ ][ ] DON'T KNOW 998		
438	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 OTHER PERSON TRAD. BIRTH ATTENDANT . . . . . 14 OTHER _____ 96 (SPECIFY) (SKIP TO 449)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
439	After you were discharged, did a health professional or a traditional birth attendant check on your health?	YES . . . . . 1 (SKIP TO 442) NO . . . . . 2 (SKIP TO 449)	YES . . . . . 1 (SKIP TO 451) NO 2	YES . . . . . 1 (SKIP TO 451) NO 2
440	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . . . . A FACILITY NOT OPEN . . B TOO FAR/ NO TRANSPORT . . . . . C DON'T TRUST FACILITY/POOR QUALITY SERVICE . . D NO FEMALE PROVIDER AT FACILITY . . . . . E HUSBAND/FAMILY NOT ALLOW . . . . . F NOT NECESSARY . . . . . G MIDWIFE CAME TO HOME . . . . . H NO COMFORTABLE SPACE . . . . . I NO BEDS . . . . . J CHILD CARE . . . . . K OTHER _____ (SPECIFY) X		
441	After (NAME) was born, did a health professional or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 445)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
442	How many hours, days or weeks after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW 998		
443	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . 14 OTHER _____ (SPECIFY) 96		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
444	Where did this first check take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . 11 MIDWIFE/ TBA HOME . . . . . 12 OTHER HOME . . . . . 13 PUBLIC SECTOR NATL HOSP (PP) . . . . . 21 PROV HOSP (RH) 22 DIST HOSP (RH) . . . . . 23 HLTH CENTER . . . . . 24 HLTH POST . . . . . 25 OUTREACH . . . . . 26 MILITARY HOSP . . . . . 27 OTHER PUBLIC _____ 28 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . . . 31 PRIV. CLINIC . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)			
444A	CHECK 439:	YES ☐ → (SKIP TO 449) NOT ASKED ☐ →		
445	In the two months after (NAME) was born, did a health professional or traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 449) ← DON'T KNOW 8		
446	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HRS AFTER BIRTH 1 [ ][ ] DAYS AFTER BIRTH 2 [ ][ ] WKS AFTER BIRTH 3 [ ][ ] DON'T KNOW 998		
447	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . 14 OTHER _____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
448	Where did this first check of (NAME) take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . A MIDWIFE/ TBA HOME . . . . . B OTHER HOME . . . . . C PUBLIC SECTOR NATL HOSP (PP) . . . . . D PROV HOSP (RH) E DIST HOSP (RH) . . . . . F HLTH CENTER . . . . . G HLTH POST . . . . . H OUTREACH . . . . . I MILITARY HOSP . . . . . J OTHER PUBLIC _____ K (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . . . L PRIV. CLINIC . . . . . M OTHER PRIVATE MED. _____ N (SPECIFY) OTHER _____ X (SPECIFY)		
449	In the first eight weeks after delivery, did you receive a vitamin A dose like this? SHOW CAPSULE.	YES . . . . . 1 NO 2		
449A	In the first two months after delivery, did you receive iron tablets?	YES . . . . . 1 NO . . . . . 2 DK 8		
450	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 452) NO . . . . . 2 (SKIP TO 453)		
451	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 455)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 455)
452	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
453	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG-NANT [ ] PREGNANT OR UNSURE [ ] (SKIP TO 455)		
454	Have you resumed sexual relations since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 456)		
455	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
456	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463)
456A	Did you provide colostrum with the breastmilk?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
457	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . . 000 HOURS 1 [ ][ ] DAYS 2 [ ][ ]		
458	In the first three days after delivery, was (NAME) given anything to drink other than breast milk, such as chheu em?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460)		
459	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	PLAIN WATER . . . . . A SUGAR OR HONEY WATER . . . . . B SUGAR/SALT WATER . . . . . C HERBAL TEA . . . . . D JUICE/COCONUT WATER . . . . . E MILK (NOT BREASTMILK) . . . . . F INFANT FORMULA . . . . . G OTHER _____ X (SPECIFY)		
460	CHECK 404: IS CHILD LIVING?	LIVING [ ] DEAD [ ] (SKIP TO 462)	LIVING [ ] DEAD [ ] (SKIP TO 462)	LIVING [ ] DEAD [ ] (SKIP TO 462)
461	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 464) NO 2	YES . . . . . 1 (SKIP TO 466) NO 2	YES . . . . . 1 (SKIP TO 466) NO 2
462	For how many months did you breastfeed (NAME)?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
463	CHECK 404: IS CHILD LIVING?	LIVING [ ] DEAD [ ] (SKIP TO 466) (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 468)	LIVING [ ] DEAD [ ] (SKIP TO 466) (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 468)	LIVING [ ] DEAD [ ] (SKIP TO 466) (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 468)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
464	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . [ ][ ]		
465	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . [ ][ ]		
466	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
467		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 468.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 468.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 468.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
468	CHECK 215 AND 218: HAS AT LEAST ONE CHILD BORN IN 2002 OR LATER AND LIVING WITH HER ☐ RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 469) _____ (NAME)	DOES NOT HAVE ANY CHILDREN BORN IN 2002 OR LATER AND LIVING WITH HER ☐	→ 501
469	Now I would like to ask you about liquids (NAME FROM 468) drank yesterday during the day or at night. Did (NAME FROM 468) drink:	YES NO DK	
	Plain water?	PLAIN WATER 1 2 8	
	Infant formula?	FORMULA 1 2 8	
	Any other milk such as tinned, condensed, or fresh animal milk?	MILK 1 2 8	
	Fruit juice such as coconut juice?	JUICE 1 2 8	
	Tea or coffee?	TEA/COFFEE 1 2 8	
	Any other liquids such as sugar water, carbonated drinks, or soup broth?	OTHER LIQUIDS 1 2 8	
470	Now I would like to ask you about the food (NAME FROM 468) ate yesterday during the day or at night, either separately or combined with other foods. Did (NAME FROM 468) eat:	YES NO DK	
	a. Any porridge?	a 1 2 8	
	b. Any commercially produced baby cereal?	b 1 2 8	
	c. Any bread, rice, noodles, or any other staple foods made from grains?	c 1 2 8	
	d. Any pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	d 1 2 8	
	e. Any white potatoes, white yams, manioc, cassava, or any other foods made from roots?	e 1 2 8	
	f. Any dark green, leafy vegetables?	f 1 2 8	
	g. Any ripe mangoes or papayas?	g 1 2 8	
	h. Any other fruits or vegetables?	h 1 2 8	
	i. Any liver, kidney, heart or other organ meats?	i 1 2 8	
	j. Any beef, pork, lamb, goat, rabbit or deer?	j 1 2 8	
	k. Any chicken, duck or other birds?	k 1 2 8	
	l. Any eggs?	l 1 2 8	
	m. Any fresh or dried fish or shellfish?	m 1 2 8	
	n. Any foods made from beans, peas, or lentils?	n 1 2 8	
	o. Any nuts?	o 1 2 8	
	p. Any fish paste?	p 1 2 8	
	q. Any food made with oil, fat, or butter?	q 1 2 8	
	r. Any snake, snail, frog, rat, or insects?	r 1 2 8	
	s. Any sugary foods such as chocolates, sweets, candies, cakes or pastries ?	s 1 2 8	
	t. Any other solid or semi-solid food?	t 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
471	CHECK 470: AT LEAST ONE "YES" ☐	NOT A SINGLE "YES" ☐	→ 501
472	How many times did (NAME) eat solid, semisolid, or soft foods other than liquids yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OFTIMES . . . . . ☐ DON'T KNOW 8	

SECTION 5. IMMUNIZATION, HEALTH, AND WOMEN'S NUTRITION

501	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2000 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).			
502	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . . . [ ][ ]	SECOND-FROM-LAST BIRTH LINE NUMBER . . . . . [ ][ ]
503	FROM 212 AND 216	NAME_____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 547)	NAME_____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 547)	NAME_____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 547)
504	Has (NAME) ever received a vitamin A dose like this? SHOW CAPSULE.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 506) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 506) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 506) DON'T KNOW 8
505	How many months ago did (NAME) take the last dose?	MONTHS AGO . . [ ][ ] DON'T KNOW 98	MONTHS AGO . . [ ][ ] DON'T KNOW 98	MONTHS AGO . . [ ][ ] DON'T KNOW 98
506	In the last 7 days, did (NAME) take iron pills?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
506A	Has (NAME) taken any drug for intestinal parasites in the past 6 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
507	Do you have a yellow card where (NAME)'s vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 509) YES, NOT SEEN . . . . . 2 (SKIP TO 511) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 509) YES, NOT SEEN . . . . . 2 (SKIP TO 511) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 509) YES, NOT SEEN . . . . . 2 (SKIP TO 511) NO CARD 3
508	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 511) NO 2	YES . . . . . 1 (SKIP TO 511) NO 2	YES . . . . . 1 (SKIP TO 511) NO 2

509

(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.

(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.

	LAST BIRTH			NEXT-TO-LAST BIRTH			SECOND-FROM-LAST BIRTH		
	DAY	MONTH	YEAR	DAY	MONTH	YEAR	DAY	MONTH	YEAR
BCG				BCG			BCG		
POLIO 0				P0			P0		
POLIO 1				P1			P1		
POLIO 2				P2			P2		
POLIO 3				P3			P3		
DTC 1				D1			D1		
DTC 2				D2			D2		
DTC 3				D3			D3		
MEASLES				MEA			MEA		
VITAMIN A (MOST RECENT)				VIT A			VIT A		
VITAMIN A (2nd MOST RECENT)				VIT A			VIT A		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
510	Has (NAME) received any vaccinations that are not recorded on this card? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINES.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 509) (SKIP TO 513) NO . . . . . 2 (SKIP TO 513) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 509) (SKIP TO 513) NO . . . . . 2 (SKIP TO 513) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 509) (SKIP TO 513) NO . . . . . 2 (SKIP TO 513) DON'T KNOW 8
511	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 514) DON'T KNOW . . . . . 8 (SKIP TO 515)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 514) DON'T KNOW . . . . . 8 (SKIP TO 515)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 514) DON'T KNOW . . . . . 8 (SKIP TO 515)
512	Please tell me if (NAME) received any of the following vaccinations:			
512A	A BCG vaccination against tuberculosis, that is, an injection in the left arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
512B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512D) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512D) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512D) DON'T KNOW 8
512C	How many times was the polio vaccine received?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
512D	A DPT vaccination, that is, an injection given in the thigh or buttocks, usually at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512F) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512F) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512F) DON'T KNOW 8
512E	How many times was a DPT vaccination received?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
512F	An injection at nine months to prevent measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
513	Where did (NAME) receive most of the vaccinations?	OUTREACH ACTIVITIES . . . . . 01 HEALTH CENTER . 02 NATL, PROV, DIST HOSPITAL . . . . . 03 PRIV PRACTICE/ PRIV CLINIC . . . 04 OTHER _____ 96 (SPECIFY) (SKIP TO 515)	OUTREACH ACTIVITIES . . . . . 01 HEALTH CENTER . 02 NATL, PROV, DIST HOSPITAL . . . . . 03 PRIV PRACTICE/ PRIV CLINIC . . . 04 OTHER _____ 96 (SPECIFY) (SKIP TO 515)	OUTREACH ACTIVITIES . . . . . 01 HEALTH CENTER . 02 NATL, PROV, DIST HOSPITAL . . . . . 03 PRIV PRACTICE/ PRIV CLINIC . . . 04 OTHER _____ 96 (SPECIFY) (SKIP TO 515)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
514	Why did you not vaccinate your child? RECORD ALL MENTIONED.	UNAWARE OF NEED . . . . . A PLACE/TIME UNKNOWN . . . . . B SIDE EFFECTS . . . C CHILD SICK . . . . . D TOO BUSY . . . . . E NO NEED . . . . . F TOO COSTLY . . . . . G RUMOURS . . . . . H OTHER _____ X (SPECIFY)	UNAWARE OF NEED . . . . . A PLACE/TIME UNKNOWN . . . . . B SIDE EFFECTS . . . C CHILD SICK . . . . . D TOO BUSY . . . . . E NO NEED . . . . . F TOO COSTLY . . . . . G RUMOURS . . . . . H OTHER _____ X (SPECIFY)	UNAWARE OF NEED . . . . . A PLACE/TIME UNKNOWN . . . . . B SIDE EFFECTS . . . C CHILD SICK . . . . . D TOO BUSY . . . . . E NO NEED . . . . . F TOO COSTLY . . . . . G RUMOURS . . . . . H OTHER _____ X (SPECIFY)
515	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8
516	Was there any blood in the stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
517	Now I would like to know how much (NAME) was given to drink during the diarrhea. Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
518	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
519	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 524)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 524)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 524)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
520	Where did you seek advice or treatment? IF SOURCE IS A HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Anywhere else? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR NATL HOSP (PP) . A PROV HOSP (RH) B DIST HOSP (RH) . C HLTH CENTER . . . D HLTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSP . G OTHER PUBLIC _____ H (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) . A PROV HOSP (RH) B DIST HOSP (RH) . C HLTH CENTER . . . D HLTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSP . G OTHER PUBLIC _____ H (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) . A PROV HOSP (RH) B DIST HOSP (RH) . C HLTH CENTER . . . D HLTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSP . G OTHER PUBLIC _____ H (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)
521	CHECK 520:	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 523)	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 523)	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 523)
522	Where did you first seek advice or treatment? USE LETTER CODE FROM 520.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
523	How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐
524	Does (NAME) still have diarrhea?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
525	Was he/she given any of the following to drink at any time since he/she started having the diarrhea:	YES NO DK	YES NO DK	YES NO DK
a	A fluid made from a special packet called Oralyte?	FLUID FROM ORS PKT 1 2 8	FLUID FROM ORS PKT 1 2 8	FLUID FROM ORS PKT 1 2 8
b	A home fluid of porridge water or cooked rice with salt and sugar?	HOMEMADE FLUID 1 2 8	HOMEMADE FLUID 1 2 8	HOMEMADE FLUID 1 2 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
526	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8
527	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	TABLET OR SYRUP . . . . . A INJECTION (IM OR IV) . . . . . B PERFUSION . . . . . C TRADITIONAL/ HERBAL MEDICINE . . . . . D OTHER _____ X (SPECIFY)	TABLET OR SYRUP . . . . . A INJECTION (IM OR IV) . . . . . B PERFUSION . . . . . C TRADITIONAL/ HERBAL MEDICINE . . . . . D OTHER _____ X (SPECIFY)	TABLET OR SYRUP . . . . . A INJECTION (IM OR IV) . . . . . B PERFUSION . . . . . C TRADITIONAL/ HERBAL MEDICINE . . . . . D OTHER _____ X (SPECIFY)
530	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
531	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 534) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 534) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 534) DON'T KNOW 8
532	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 535) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 535) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 535) DON'T KNOW 8
533	When (NAME) had this illness, did he/she have a problem in the chest or a blocked or runny nose?	CHEST ONLY . . . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 535)	CHEST ONLY . . . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 535)	CHEST ONLY . . . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 535)
534	CHECK 530: HAD FEVER?	YES NO OR DK (SKIP TO 546)	YES NO OR DK (SKIP TO 546)	YES NO OR DK (SKIP TO 546)
535	Now I would like to know how much (NAME) was given to drink during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
536	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
537	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 542)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 542)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 542)
538	Where did you seek advice or treatment? Anywhere else? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATL HOSP (PP) . A PROV HOSP (RH) B DIST HOSP (RH) . C HLTH CENTER . . . D HLTH POST . . . . . E VILLAGE MALARIA WORKER . . . F OUTREACH . . . . . G MILITARY HOSP . . H OTHER PUBLIC _____ I (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP. . . . J PRIV. CLINIC . . . K PHARMACY . . . . . L HOME OF TRAINED HEALTH WORKER . . . M VISIT OF TRAINED HEALTH WORKER . . . N OTHER PRIVATE MED. _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P TRADITIONAL PRACTITIONER Q OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) . A PROV HOSP (RH) B DIST HOSP (RH) . C HLTH CENTER . . . D HLTH POST . . . . . E VILLAGE MALARIA WORKER . . . F OUTREACH . . . . . G MILITARY HOSP . . H OTHER PUBLIC _____ I (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP. . . . J PRIV. CLINIC . . . K PHARMACY . . . . . L HOME OF TRAINED HEALTH WORKER . . . M VISIT OF TRAINED HEALTH WORKER . . . N OTHER PRIVATE MED. _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P TRADITIONAL PRACTITIONER Q OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) . A PROV HOSP (RH) B DIST HOSP (RH) . C HLTH CENTER . . . D HLTH POST . . . . . E VILLAGE MALARIA WORKER . . . F OUTREACH . . . . . G MILITARY HOSP . . H OTHER PUBLIC _____ I (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP. . . . J PRIV. CLINIC . . . K PHARMACY . . . . . L HOME OF TRAINED HEALTH WORKER . . . M VISIT OF TRAINED HEALTH WORKER . . . N OTHER PRIVATE MED. _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P TRADITIONAL PRACTITIONER Q OTHER _____ X (SPECIFY)
539	CHECK 538:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 541)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 541)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 541)
540	Where did you first seek advice or treatment? USE LETTER CODE FROM 538.	FIRST PLACE . . .	FIRST PLACE . . .	FIRST PLACE . . .
541	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS	DAYS	DAYS . . . . .

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
542	Is (NAME) still sick with a (fever/ cough)?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
542A	At any time during the illness, was (NAME)'s blood tested for malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 543) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 543) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 543) ←┤ DON'T KNOW 8
542B	What type of test?	BLOOD SLIDE . . . . . 1 RAPID TEST . . . . . 2 DON'T KNOW 8	BLOOD SLIDE . . . . . 1 RAPID TEST . . . . . 2 DON'T KNOW 8	BLOOD SLIDE . . . . . 1 RAPID TEST . . . . . 2 DON'T KNOW 8
543	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 546) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 546) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 546) ←┤ DON'T KNOW 8
544	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL FANSIDAR . . . . . A CHLOROQUINE . B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K ANTIBIOTIC AMOXICILLINE . . . L COTRIMOXAZONE M TETRACYCLINE . N OTHER ASPIRIN . . . . . O PARACETAMOL . P DRUG COCKTAIL Q MULTIVITAMIN . . . R OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL FANSIDAR . . . . . A CHLOROQUINE . B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K ANTIBIOTIC AMOXICILLINE . . . L COTRIMOXAZONE M TETRACYCLINE . N OTHER ASPIRIN . . . . . O PARACETAMOL . P DRUG COCKTAIL Q MULTIVITAMIN . . . R OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL FANSIDAR . . . . . A CHLOROQUINE . B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K ANTIBIOTIC AMOXICILLINE . . . L COTRIMOXAZONE M TETRACYCLINE . N OTHER ASPIRIN . . . . . O PARACETAMOL . P DRUG COCKTAIL Q MULTIVITAMIN . . . R OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
544A	CHECK 544: ANY CODE A-N CIRCLED?	YES ☐ NO ☐ (SKIP TO 546)	YES ☐ NO ☐ (SKIP TO 546)	YES ☐ NO ☐ (SKIP TO 546)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
545	Did you already have (NAME OF DRUG FROM 544) at home when the child became ill? IF YES, CIRCLE CODE FOR THAT DRUG. ASK SEPARATELY FOR EACH ANTIMALARIALL OR ANTIBIOTIC DRUG GIVEN IN 544.	ANTIMALARIAL FANSIDAR . . . . . A CHLOROQUINE . B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K ANTIBIOTIC AMOXICILLINE . . . L COTRIMOXAZONE M TETRACYCLINE . N	ANTIMALARIAL FANSIDAR . . . . . A CHLOROQUINE . B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K ANTIBIOTIC AMOXICILLINE . . . L COTRIMOXAZONE M TETRACYCLINE . N	ANTIMALARIAL FANSIDAR . . . . . A CHLOROQUINE . B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K ANTIBIOTIC AMOXICILLINE . . . L COTRIMOXAZONE M TETRACYCLINE . N
546		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 547.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 547.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 547.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
547	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2000 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓	NONE ☐	→ 550
548	The last time (NAME OF YOUNGEST CHILD) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . 01 PUT/RINSED INTO TOILET OR LATRINE . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBAGE . . . . . 04 BURIED . . . . . 05 LEFT IN THE OPEN . . . . . 06 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
549	CHECK 525(a) AND 525(b), ALL COLUMNS: NO CHILD RECEIVED ORALYTE ☐ ↓	ANY CHILD RECEIVED ORALYTE ☐	→ 551
550	Have you ever heard of a special product called Oralyte, which can be provided during a diarrheal episode? (SHOW PACKET)	YES . . . . . 1 NO 2	
551	Now I would like to ask you some questions about medical care for you yourself. Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROB-LEM / NOT A BIG PROB-LEM	
	Getting permission to go.	PERMISSION TO GO . . . 1 2	
	Getting money needed for treatment.	GETTING MONEY 1 2	
	The distance to the health facility.	DISTANCE 1 2	
	Having to take transport.	TAKING TRANSPORT . . . 1 2	
	Not wanting to go alone.	GO ALONE 1 2	
	Concern that there may not be a female health provider.	NO FEMALE PROV. . . . 1 2	
	Concern that there may not be any health provider.	NO PROVIDER 1 2	
	Concern that there may be no drugs available.	NO DRUGS 1 2	
554	Now I would like to ask you some questions about any injections you have had in the last 12 months. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 558
555	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 558

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
556	The last time you had an injection given to you by a health worker, where did you go to get the injection?	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 OTHER PUBLIC _____ 18 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 DENTAL CLINIC/OFFICE . . . . . 22 PHARMACY . . . . . 23 OFFICE OR HOME OF NURSE/ HEALTH WORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER PLACE AT HOME . . . . . 31 OTHER _____ 96 (SPECIFY)	
557	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
558	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 560
559	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
560	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 562
561	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B OTHER _____ X (SPECIFY)	
562	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 566
563	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	INHERITED . . . . . A THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . B THROUGH SHARING UTENSILS . . . . . C THROUGH TOUCHING A PERSON WITH TB . . . . . D THROUGH FOOD . . . . . E THROUGH SEXUAL CONTACT . . . . . F THROUGH MOSQUITO BITES . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
564	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
565	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
566	CHECK 468: HAS AT LEAST ONE CHILD BORN IN 2002 OR LATER AND LIVING WITH HER DOES NOT HAVE ANY CHILDREN BORN IN 2002 OR LATER AND LIVING WITH HER		570A
567	Now I would like to ask you about the foods and liquids you had yesterday during the day or at night, either separately or combined with other foods or liquids. Did (YOU) eat or drink:	YES NO DK	
	a. Any bread, rice, noodles, or any other staple foods made from grains?	a 1 2 8	
	b. Any pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside?	b 1 2 8	
	c. Any white potatoes, white yams, manioc, cassava or any other foods made from roots or tubers?	c 1 2 8	
	d. Any dark green, leafy vegetables?	d 1 2 8	
	e. Any ripe mangoes or papayas?	e 1 2 8	
	f. Any other fruits or vegetables?	f 1 2 8	
	g. Any liver, kidney, heart or other organ meats?	g 1 2 8	
	h. Any beef, pork, lamb, goat, rabbit or deer?	h 1 2 8	
	i. Any chicken, duck or other birds?	i 1 2 8	
	j. Any eggs?	j 1 2 8	
	k. Any fresh or dried fish or shellfish?	k 1 2 8	
	l. Any foods made from beans, peas, or lentils?	l 1 2 8	
	m. Any nuts?	m 1 2 8	
	n. Any fish paste?	n 1 2 8	
	o. Any milk or other milk products?	o 1 2 8	
	p. Any foods made with oil, fat, or butter?	p 1 2 8	
	q. Any snake, snail, frog, rat, or insects?	q 1 2 8	
	r. Any tea or coffee?	r 1 2 8	
	s. Any sugary foods such as pastry, cakes, chocolates, sweets or candies ?	s 1 2 8	
	t. Any sugary drinks such as sodas or fruit juices ?	t 1 2 8	

SECTION 5A. CAUSE OF DEATH OF CHILDREN BORN AND DYING IN PAST 3 YEARS

570A	CHECK COVER PAGE: IS HOUSEHOLD SELECTED FOR CAUSE OF DEATH ? YES ☐ ↓ NO ☐ → 601			
507B	CHECK 215: ONE OR MORE BIRTH IN 2002 OR LATER ☐ ↓ NO BIRTH IN 2002 OR LATER ☐ → 601			
570C	ENTER THE LINE NUMBER FROM 212 OF EACH BIRTH BORN SINCE JANUARY 2002 IN THE TABLE. THEN ENTER THE NAME AND SURVIVAL STATUS OF EACH OF THOSE BIRTHS. IF TWO OR MORE BIRTHS, BEGIN WITH THE LAST BIRTH. ASK QUESTIONS ABOUT THE BIRTHS WHO HAVE DIED.			
	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . ☐☐	NEXT-TO-LAST BIRTH LINE NUMBER . . . ☐☐	SECOND-FROM-LAST BIRTH LINE NUMBER . . . ☐☐
570D	FROM 212 AND 216	NAME _____ DEAD ☐ ↓ ALIVE ☐ ↓ (GO TO NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 601)	NAME _____ DEAD ☐ ↓ ALIVE ☐ ↓ (GO TO NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 601)	NAME _____ DEAD ☐ ↓ ALIVE ☐ ↓ (GO TO NEXT COLUMN OR IF NO MORE BIRTHS, GO TO 601)
571	I know it may be difficult to talk about the (child/children) you had who died, but this information is very important in helping to plan health programs to prevent other children from dying. I would like to ask you some questions about the events and symptoms your (child/children) had during the time before (he/she/they) died. (We will talk about one child at a time.)			
572	Did (NAME) die as a result of an accident, or some other reason? IF ACCIDENT: Was it an accident or an accident at birth?	ACCIDENT . . . . . 1 ACCIDENT AT BIRTH/ PREMATURE/ MALFORMED . . . 2 (SKIP TO 575) ← ILLNESS 3	ACCIDENT . . . . . 1 ACCIDENT AT BIRTH/ PREMATURE/ MALFORMED . . . 2 (SKIP TO 575) ← ILLNESS 3	ACCIDENT . . . . . 1 ACCIDENT AT BIRTH/ PREMATURE/ MALFORMED . . . 2 (SKIP TO 575) ← ILLNESS 3
573	What type of accident?	LANDMINE/UNEXPLODED BOMB (UXO) . . . 01 GUN SHOT/WEAPON 02 ROAD ACCIDENT . 03 FIRE/BURNING . . . 04 SNAKE/ANIMAL BITE 05 FALL FROM TREE/ BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING . . . . . 08 VIOLENCE . . . . . 09 OTHER_____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (ALL SKIP TO 570D FOR BIRTH IN NEXT COLUMN)	LANDMINE/UNEXPLODED BOMB (UXO) . . . 01 GUN SHOT/WEAPON 02 ROAD ACCIDENT . 03 FIRE/BURNING . . . 04 SNAKE/ANIMAL BITE 05 FALL FROM TREE/ BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING . . . . . 08 VIOLENCE . . . . . 09 OTHER_____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (ALL SKIP TO 570D FOR BIRTH IN NEXT COLUMN)	LANDMINE/UNEXPLODED BOMB (UXO) . . . 01 GUN SHOT/WEAPON 02 ROAD ACCIDENT . 03 FIRE/BURNING . . . 04 SNAKE/ANIMAL BITE 05 FALL FROM TREE/ BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING . . . . . 08 VIOLENCE . . . . . 09 OTHER_____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (ALL SKIP TO 570D FOR BIRTH IN NEXT COLUMN)
575	What do you think was the cause of (NAME)'s death?	☐☐ _____ (SPECIFY ILLNESS)	☐☐ _____ (SPECIFY ILLNESS)	☐☐ _____ (SPECIFY ILLNESS)

	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . [ ][ ]	SECOND-FROM-LAST BIRTH LINE NUMBER . . . [ ][ ]
576	During the illness that led to (NAME)'s death, did you seek advice or treatment anywhere or from anyone? IF YES: Where did you go? RECORD ALL MENTIONED.	PUBLIC SECTOR NATL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP. (RH) . . . B DISTRICT HOSP. (RH) . . . C HEALTH CENTER D HEALTH POST . E VILLAGE MALARIA WORKER . . . F OUTREACH . . . . . G PRIVATE SECTOR PRIV HOSP. . . . . H PRIV CLINIC . . . I PHARMACY . . . . . J OTHER PRIV . . . K OTHER _____ X (SPECIFY) NONE . . . . . Z	PUBLIC SECTOR NATL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP. (RH) . . . B DISTRICT HOSP. (RH) . . . C HEALTH CENTER D HEALTH POST . E VILLAGE MALARIA WORKER . . . F OUTREACH . . . . . G PRIVATE SECTOR PRIV HOSP. . . . . H PRIV CLINIC . . . I PHARMACY . . . . . J OTHER PRIV . . . K OTHER _____ X (SPECIFY) NONE . . . . . Z	PUBLIC SECTOR NATL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP. (RH) . . . B DISTRICT HOSP. (RH) . . . C HEALTH CENTER D HEALTH POST . E VILLAGE MALARIA WORKER . . . F OUTREACH . . . . . G PRIVATE SECTOR PRIV HOSP. . . . . H PRIV CLINIC . . . I PHARMACY . . . . . J OTHER PRIV . . . K OTHER _____ X (SPECIFY) NONE . . . . . Z
576A	Did any health worker make a diagnosis explaining the death?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
577	Where did (NAME) die?	AT HOME . . . . . 1 IN A HEALTH FACILITY . . . . . 2 ON THE WAY TO HEALTH FAC. . . . 3 OTHER _____ 6 (SPECIFY)	AT HOME . . . . . 1 IN A HEALTH FACILITY . . . . . 2 ON THE WAY TO HEALTH FAC. . . . 3 OTHER _____ 6 (SPECIFY)	AT HOME . . . . . 1 IN A HEALTH FACILITY . . . . . 2 ON THE WAY TO HEALTH FAC. . . . 3 OTHER _____ 6 (SPECIFY)
578	CHECK 220: AGE AT DEATH	LESS THAN 1 MONTH [ ] 1 MONTH/ OLDER [ ] (SKIP TO 589)	LESS THAN 1 MONTH [ ] 1 MONTH/ OLDER [ ] (SKIP TO 589)	LESS THAN 1 MONTH [ ] 1 MONTH/ OLDER [ ] (SKIP TO 589)
579	Was (NAME) born after a difficult labor or delivery?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
580	Was (NAME) malformed in any way?	YES _____ 1 (SPECIFY) NO . . . . . 2 DON'T KNOW 8	YES _____ 1 (SPECIFY) NO . . . . . 2 DON'T KNOW 8	YES _____ 1 (SPECIFY) NO . . . . . 2 DON'T KNOW 8
581	Did (NAME) suckle or drink normally during the first two days of life?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
582	Did (NAME) have a decrease in suckling or difficulty suckling during the days before death?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . [ ][ ]	SECOND-FROM-LAST BIRTH LINE NUMBER . . . [ ][ ]
583	Did (NAME) have convulsions or spasms during the illness that led to death?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
583A	During the illness that led to death, did (NAME) have tetanus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
584	During the illness that led to death, did (NAME) have a cough?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 588) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 588) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 588) ← DON'T KNOW 8
585	For how many days did the cough last? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . . . [ ][ ]	DAYS . . . . . [ ][ ]	DAYS . . . . . [ ][ ]
586	When (NAME) had the illness with the cough, did (he/she) have difficult or rapid breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 588) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 588) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 588) ← DON'T KNOW 8
587	For how many days did the difficult or rapid breathing last? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . . . [ ][ ]	DAYS . . . . . [ ][ ]	DAYS . . . . . [ ][ ]
588	GO BACK TO 570D FOR NEXT CHILD THAT DIED; IF NO MORE DEATHS GO TO 601.			
589	During the illness that led to death, did (NAME) have loose or liquid stools, that is, diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 593) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 593) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 593) ← DON'T KNOW 8
590	Was the episode of diarrhea mild or severe?	MILD . . . . . 1 SEVERE . . . . . 2 DON'T KNOW 8	MILD . . . . . 1 SEVERE . . . . . 2 DON'T KNOW 8	MILD . . . . . 1 SEVERE . . . . . 2 DON'T KNOW 8
591	For how long did the diarrhea last? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998
592	Was there any blood in the stool?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . .	NEXT-TO-LAST BIRTH LINE NUMBER . . .	SECOND-FROM-LAST BIRTH LINE NUMBER . . .
593	During the illness that led to death, did (NAME) have a cough?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 597) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 597) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 597) ← DON'T KNOW 8
594	For how long did the cough last? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998
595	When (NAME) had the illness with the cough, did (he/she) have difficult or rapid breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 597) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 597) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 597) ← DON'T KNOW 8
596	For how long did the difficult or rapid breathing last? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998
597	During the illness that led to death, did (NAME) have a fever?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598) ← DON'T KNOW 8
597A	Was the fever mild or severe?	MILD . . . . . 1 SEVERE . . . . . 2 DON'T KNOW 8	MILD . . . . . 1 SEVERE . . . . . 2 DON'T KNOW 8	MILD . . . . . 1 SEVERE . . . . . 2 DON'T KNOW 8
597B	How long did the fever last? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998	DAYS . . . 1 WEEKS . 2 MONTHS . 3 DON'T KNOW 998
597C	During the illness that led to death, was (NAME) tested for malaria?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
598	During the illness that led to death, was (NAME) unconscious?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . [ ][ ]	SECOND-FROM-LAST BIRTH LINE NUMBER . . . [ ][ ]
598A	During the illness that led to death, did (NAME) have convulsions?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
598B	During the illness that led to death, did (NAME) have a skin rash all over (his/her) body and face?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598D) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598D) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598D) ←┤ DON'T KNOW 8
598C	How long did the rash last? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998
598D	During the illness that led to death, was there any bleeding from the nose, mouth, or gums?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
598E	During the illness that led to death, did (NAME) have black vomitting or bloody stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
598F	During the illness that led to death, was there any discharge from the eyes?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
598G	During the illness that led to death, was (NAME) very thin?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598J) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598J) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 598J) ←┤ DON'T KNOW 8
598H	How long was (NAME) very thin?	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . 2 [ ][ ] MONTHS . 3 [ ][ ] DON'T KNOW 998
598J	During the illness that led to death, did (NAME) have swelling of the feet or legs?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 599) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 599) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 599) ←┤ DON'T KNOW 8
598K	How long was the swelling present? IF LESS THAN ONE DAY, WRITE '00'.	DAYS . . . 1 [ ][ ] WEEKS . . . 2 [ ][ ] MONTHS . . . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . . . 2 [ ][ ] MONTHS . . . 3 [ ][ ] DON'T KNOW 998	DAYS . . . 1 [ ][ ] WEEKS . . . 2 [ ][ ] MONTHS . . . 3 [ ][ ] DON'T KNOW 998
599	GO BACK TO 570D FOR NEXT CHILD THAT DIED; IF NO MORE DEATHS, GO TO 601.			

SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→ 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→ 614
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 606
604	Is your husband/partner living with you now or is he staying elsewhere?	LIVING TOGETHER . . . . . 1 STAYING ELSEWHERE 2	
605	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . [ ][ ]	
606	Have you been married or lived with only one man or more than one man?	ONLY ONE . . . . . 1 MORE THAN ONE 2	
607	CHECK 606: MARRIED/ LIVED WITH A MAN ONLY ONCE → In what month and year did you start living with your husband/partner? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → Now I would like to ask about when you started living with your first husband/partner. What month and year was that? IF RESPONDENT DOES NOT KNOW GREGORIAN DATE, ASK FOR KHMER DATE OF MARRIAGE. USE DATE CONVERSION CHART TO FIND GREGORIAN MONTH AND YEAR. _____ (SPECIFY KHMER MONTH AND YEAR OF MARRIAGE)	GREGORIAN MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 GREGORIAN YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 609
608	How old were you when you first started living with him?	AGE . . . . . [ ][ ]	
609	CHECK 603: IS RESPONDENT CURRENTLY WIDOWED? NOT ASKED OR NOT WIDOWED → WIDOWED		→ 612
610	CHECK 606: MARRIED MORE THAN ONCE → MARRIED ONLY ONCE		→ 614
611	How did your previous marriage or union end?	DEATH/WIDOWHOOD . . . . . 1 DIVORCE . . . . . 2 SEPARATION 3	→ 614

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	Who did most of your late husband's property go to?	RESPONDENT . . . . . 1 OTHER WIFE . . . . . 2 SPOUSE'S CHILDREN . . . . . 3 SPOUSE'S FAMILY . . . . . 4 OTHER _____ 5 (SPECIFY) NO PROPERTY 6	→ 614
613	Did you receive any of your late husband's assets or valuables?	YES . . . . . 1 NO 2	
614	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
615	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you had sexual intercourse for the very first time?	NEVER . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→ 617 → 617
616	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 637
617	CHECK 106: 15-24 YEARS OLD [ ] ↓ 25-49 YEARS OLD [ ]		→ 622
618	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
619	How old was the person you first had sexual intercourse with?	AGE OF PARTNER . . . . . [ ][ ] DON'T KNOW 98	→ 622
620	Was this person older than you, younger than you, or about the same age as you?	OLDER . . . . . 1 YOUNGER . . . . . 2 ABOUT THE SAME AGE . . . . . 3 DON'T KNOW/DON'T REMEMBER . . . 8	→ 622
621	Would you say this person was ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER . . . . . 1 LESS THAN TEN YEARS OLDER . . . 2 OLDER, UNSURE HOW MUCH 3	
622	When was the <u>last</u> time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO. IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS.	NUMBER OF DAYS AGO . . . 1 [ ][ ] NUMBER OF WEEKS AGO . . . 2 [ ][ ] NUMBER OF MONTHS AGO . . . 3 [ ][ ] NUMBER OF YEARS AGO . . . 4 [ ][ ]	→ 636

		MOST RECENT SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
623	The last time you had sexual intercourse with this person, was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 626)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 626)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 626)
624	Why did you use a condom?	BIRTH SPACING . 1 HIV PREVENTION . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY)	BIRTH SPACING . 1 HIV PREVENTION . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY)	BIRTH SPACING . 1 HIV PREVENTION . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY)
625	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
626	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND/GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '02' IF NO, CIRCLE '03'	SPOUSE . . . . . 01 (SKIP TO 632) LIVE-IN PARTNER . . . . 02 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 03 CASUAL ACQUAINTANCE . . . . 04 COMMERCIAL SEX WORKER . . . . 05 OTHER _____ 96 (SPECIFY)	SPOUSE . . . . . 01 (SKIP TO 632) LIVE-IN PARTNER . . . . 02 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 03 CASUAL ACQUAINTANCE . . . . 04 COMMERCIAL SEX WORKER . . . . 05 OTHER _____ 96 (SPECIFY)	SPOUSE . . . . . 01 (SKIP TO 632) LIVE-IN PARTNER . . . . 02 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 03 CASUAL ACQUAINTANCE . . . . 04 COMMERCIAL SEX WORKER . . . . 05 OTHER _____ 96 (SPECIFY)
627	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . . . 1 [ ][ ] MONTHS 2 [ ][ ] YEARS . . . 3 [ ][ ]	DAYS . . . 1 [ ][ ] MONTHS 2 [ ][ ] YEARS . . . 3 [ ][ ]	DAYS . . . 1 [ ][ ] MONTHS 2 [ ][ ] YEARS . . . 3 [ ][ ]
628	CHECK 106:	15-24 Y. OLD [ ] 25-49 Y. OLD [ ] (SKIP TO 632)	15-24 Y. OLD [ ] 25-49 Y. OLD [ ] (SKIP TO 632)	15-24 Y. OLD [ ] 25-49 Y. OLD [ ] (SKIP TO 632)
629	How old is this person?	AGE OF PARTNER [ ][ ] (SKIP TO 632) DON'T KNOW 98	AGE OF PARTNER [ ][ ] (SKIP TO 632) DON'T KNOW 98	AGE OF PARTNER [ ][ ] (SKIP TO 632) DON'T KNOW 98
630	Is this person older than you, younger than you, or about the same age?	OLDER . . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 632)	OLDER . . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 632)	OLDER . . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 632)
631	Would you say this person is ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER . . 1 LESS THAN TEN YEARS OLDER . . 2 OLDER, UNSURE HOW MUCH . . . 3	TEN OR MORE YEARS OLDER . . 1 LESS THAN TEN YEARS OLDER . . 2 OLDER, UNSURE HOW MUCH . . . 3	TEN OR MORE YEARS OLDER . . 1 LESS THAN TEN YEARS OLDER . . 2 OLDER, UNSURE HOW MUCH . . . 3

		MOST RECENT SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
632	The last time you had sexual intercourse with this person, did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 634)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 634)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 635)
633	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4
634	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 623 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 636)	YES . . . . . 1 (GO BACK TO 623 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 636)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
635	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS LAST 12 MONTHS . . . . . [ ][ ] DON'T KNOW 98	
636	In total, with how many different partners have you had sexual intercourse in your life? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFE . . . . . [ ][ ] DON'T KNOW 98	
637	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 640
638	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G OTHER PUBLIC _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J OTHER PRIV. MEDICAL _____ K (SPECIFY) OTHER SOURCE SHOP . . . . . L COMMUNITY DISTRIBUTOR . . . . . M FRIEND/RELATIVE . . . . . N OTHER _____ X (SPECIFY)	
639	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
640	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 701

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
641	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G OTHER PUBLIC _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J OTHER PRIV. MEDICAL _____ K (SPECIFY) OTHER SOURCE SHOP . . . . . L COMMUNITY DISTRIBUTOR . . . . . M FRIEND/RELATIVE . . . . . N OTHER _____ X (SPECIFY)	
642	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 311/311A: NEITHER STERILIZED ☐ HE OR SHE STERILIZED ☐		→ 713
702	CHECK 226: NOT PREGNANT OR UNSURE ☐ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? PREGNANT ☐ Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . 3 UNDECIDED/DON'T KNOW: AND PREGNANT . . . . . 4 AND NOT PREGNANT OR UNSURE 5	 → 704 → 713 → 709 → 708
703	CHECK 226: NOT PREGNANT OR UNSURE ☐ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 → 708 → 713 → 708
704	CHECK 226: NOT PREGNANT OR UNSURE ☐ PREGNANT ☐		→ 709
705	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ NOT CURRENTLY USING ☐ CURRENTLY USING ☐		→ 713
706	CHECK 703: NOT ASKED ☐ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ 00-23 MONTHS OR 00-01 YEAR ☐		→ 709

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
707	CHECK 702: WANTS TO HAVE A/ANOTHER CHILD ☐ You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? WANTS NO MORE/ NONE ☐ You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . D SUBFECUND/INFECUND . . . . . E POSTPARTUM AMENORRHEIC . . . F BREASTFEEDING . . . . . G FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS HEALTH CONCERNS . . . . . O FEAR OF SIDE EFFECTS . . . . . P LACK OF ACCESS/TOO FAR . . . . . Q COSTS TOO MUCH . . . . . R INCONVENIENT TO USE . . . . . S INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . T OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
708	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ NO, NOT CURRENTLY USING ☐ YES, CURRENTLY USING ☐		→ 713
709	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 711
710	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 DAILY PILL . . . . . 03 MONTHLY PILL . . . . . 04 IUD . . . . . 05 INJECTABLES . . . . . 06 IMPLANTS . . . . . 07 MALE CONDOM . . . . . 08 FEMALE CONDOM . . . . . 09 DIAPHRAGM . . . . . 10 FOAM/JELLY . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER _____ 96 (SPECIFY) UNSURE 98	→ 713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT MARRIED . . . . . 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . . . 22 MENOPAUSAL/HYSTERECTOMY 23 SUBFECUND/INFECUND . . . . . 24 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 26 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 HUSBAND/PARTNER OPPOSED 32 OTHERS OPPOSED . . . . . 33 RELIGIOUS PROHIBITION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . . . 53 COSTS TOO MUCH . . . . . 54 INCONVENIENT TO USE . . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 713
712	Would you ever use a contraceptive method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
713	CHECK 216: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 715 → 715
714	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	
715	In the last few months have you heard about birth spacing: On the radio? On the television? In a newspaper or magazine? Through family or friends? From community council? Billboards, posters, or leaflets?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 1 2 FAMILY/FRIENDS . . . . . 1 2 COMMUNITY COUNCIL . . . . . 1 2 BILLBOARDS/POSTERS 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
716	CHECK 601: YES, CURRENTLY MARRIED ☐ YES, LIVING WITH A MAN ☐ NO, NOT IN UNION ☐ → 722		
717	CHECK 311/311A: NEITHER CODE B NOR CODE H CIRCLED, BUT ANY OTHER CODE CIRCLED ☐ CODE B OR H CIRCLED ☐ → 720 NO CODE CIRCLED ☐ → 720		
718	Does your husband/partner know that you are using a method of family planning?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
719	Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
720	CHECK 311/311A: NEITHER STERILIZED ☐ HE OR SHE STERILIZED ☐ → 722		
721	Do you think your husband/partner wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	
722	When a wife knows her husband has a disease that can be transmitted through sexual contact, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
723	CHECK 601: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ NOT IN UNION ☐ → 801		
724	Can you say no to your husband/partner if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/UNSURE 8	
725	Could you ask your husband/partner to use a condom it you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/UNSURE 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 601 AND 602: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ LIVED WITH A MAN ☐ NEVER MARRIED AND NEVER LIVED WITH A MAN ☐		803 807
802	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) husband/partner ever attend school?	YES . . . . . 1 NO 2	 806
804	What was the highest level of school he attended: primary, lower secondary, upper secondary, or higher?	PRIMARY . . . . . 1 LOWER SECONDARY . . . . . 2 UPPER SECONDARY . . . . . 3 HIGHER . . . . . 4 DON'T KNOW 8	 806
805	What was the highest grade he completed at that level?	GRADE . . . . . ☐☐ DON'T KNOW 98	
806	CHECK 801: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ What is your husband's/partner's occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ☐ What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?	☐☐ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	812
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO 2	812
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES . . . . . 1 NO 2	812
810	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	812
811	What have you been doing for most of the time over the last 12 months?	GOING TO SCHOOL/STUDYING . . . . . 01 LOOKING FOR WORK . . . . . 02 RETIRED . . . . . 03 TOO ILL TO WORK . . . . . 04 HANDICAPPED, CANNOT WORK . . . 05 HOUSEWORK/CHILD CARE . . . . . 06 OTHER _____ 96 (SPECIFY)	 901
812	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	CHECK 812: WORKS IN AGRICULTURE ☐ ↓ DOES NOT WORK IN AGRICULTURE ☐ →		815
814	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
815	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
816	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
817	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
818	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
819	CHECK 601: CURRENTLY MARRIED/LIVING WITH A MAN CODE 1 OR 2 CIRCLED ☐ ↓ NOT CURRENTLY MARRIED CODE 3 CIRCLED ☐ →		901
820	CHECK 818: CODE 1 OR 2 CIRCLED ☐ ↓ OTHER ☐ →		823
821	Who decides how the money you earn will be used: mainly you, mainly your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER 6	
822	Would you say that the money that you bring into the household is more than what your husband/partner brings in, less than what he brings in, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER DOESN'T BRING IN ANY MONEY . . . . . 4 DON'T KNOW 8	→ 901
823	Who decides how your husband's/partner's earnings will be used: mainly you, mainly your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER 6	

SECTION 9. HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 944
902	Can people reduce their chances of getting the AIDS virus by having just one sex partner who is not infected and who has no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
903	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	Can people reduce their chance of getting the AIDS virus by abstaining from sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Is there anything else a person can do to avoid or reduce the chances of getting the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 910
909	What can a person do? Anything else? RECORD ALL WAYS MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH PROSTITUTES . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . . . G AVOID SEX WITH PERSONS WHO INJECT DRUGS . . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I AVOID INJECTIONS . . . . . J AVOID SHARING RAZORS/BLADES . K AVOID KISSING . . . . . L AVOID MOSQUITO BITES . . . . . M SEEK PROTECTION FROM TRADITIONAL PRACTITIONER . . . N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
910	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
911	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
912	CHECK 911: AT LEAST ONE 'YES' ☐ NO CODE '1' CIRCLED ☐		→ 914
913	Are there any special medications that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
914	Is there any special medication that people infected with the AIDS virus can get from a doctor or a nurse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
915	CHECK 215: NO BIRTHS ☐ LAST BIRTH SINCE JANUARY 2003 ☐ LAST BIRTH BEFORE JANUARY 2003 ☐		→ 924 → 924
916	CHECK 407: SEE ANYONE FOR ANTENATAL CARE DURING THAT PREGNANCY? YES, PERSON SEEN ☐ NO ONE ☐		→ 924
917	During any of the antenatal visits for that pregnancy, did anyone talk to you about: Babies getting the AIDS virus from their mother? Things that you can do to prevent getting the AIDS virus? Getting tested for the AIDS virus?	YES NO DK AIDS FROM MOTHER 1 2 8 THINGS TO DO . 1 2 8 TESTED FOR AIDS . 1 2 8	
918	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	
919	I don't want to know the results, but were you tested for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	→ 924
920	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
921	Where was the test done? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE SOURCE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 VCCT CENTER . . . . . 18 PMTCT SITE . . . . . 19 OTHER PUBLIC _____ 20 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PRIVATE LABORATORY . . . . . 23 OTHER PRIV. MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	
922	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 925
923	When was the last time you were tested for the AIDS virus?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	→ 931
924	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 929
925	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
926	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
927	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
928	Where was the test done? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 VCCT CENTER . . . . . 18 PMTCT SITE . . . . . 19 OTHER PUBLIC _____ 20 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PRIVATE LABORATORY . . . . . 23 OTHER PRIV. MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 931
929	Do you know of a place where people can go to get tested for the virus that causes AIDS?	YES . . . . . 1 NO 2	→ 931
930	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G VCCT CENTER . . . . . H PMTCT SITE . . . . . I OTHER PUBLIC _____ J (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . K PRIVATE CLINIC . . . . . L PRIVATE LABORATORY . . . . . M OTHER PRIV. MEDICAL _____ N (SPECIFY) OTHER _____ X (SPECIFY)	
931	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
932	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
933	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
934	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
935	Do you personally know someone who has been denied health services in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 8	→ 940
936	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO 2	
937	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO 2	
938	CHECK 935, 936, AND 937: OTHER ☐ ↓	AT LEAST ONE 'YES' ☐ →	940
939	Do you personally know someone who is suspected to have the AIDS virus or who has the AIDS virus?	YES . . . . . 1 NO 2	
940	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
941	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
942	Should children age 12-14 be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
943	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
944	Do you believe that young men should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
945	Do you think that most young men you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
946	Do you believe that men who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
947	Do you think that most men you know who are not married and are having sex, have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
948	Do you believe that married men should only have sex with their wives?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
949	Do you think that most married men you know have sex only with their wives?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
950	Do you believe that young women should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
951	Do you think that most young women you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
952	Do you believe that women who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
953	Do you think that most women you know who are not married and are having sex, have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
954	Do you believe that married women should only have sex with their husbands?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
955	Do you think that most married women you know have sex only with their husbands?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
956	CHECK 901: HEARD ABOUT AIDS → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
957	CHECK 615: HAS HAD SEXUAL INTERCOURSE → HAS NOT HAD SEXUAL INTERCOURSE →		1001
958	CHECK 956: YES HAS HEARD ABOUT INFECTION TRANSMITTED THROUGH SEXUAL CONTACT → NO HAS NOT HEARD ABOUT INFECTION TRANSMITTED THROUGH SEXUAL CONTACT →		960
959	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
960	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
961	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
962	CHECK 959, 960, AND 961: HAS HAD AN INFECTION (ANY 'YES') → HAS NOT HAD AN INFECTION OR DOES NOT KNOW →		1001
963	The last time you had (PROBLEM FROM 959 / 960 / 961), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 1001

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
964	Where did you go? Any other place? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G VCCT CENTER . . . . . H PMTCT SITE . . . . . I STD CLINIC . . . . . J NGO CLINIC . . . . . K OTHER PUBLIC _____ L (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . M PRIVATE CLINIC . . . . . N PRIVATE LABORATORY . . . . . O STD CLINIC . . . . . P NGO CLINIC . . . . . Q OTHER PRIV. MEDICAL _____ R (SPECIFY) OTHER _____ X (SPECIFY)	

SECTION 10. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER . . . . . [ ][ ]	
1002	CHECK 1001: TWO OR MORE BIRTHS [ ] ↓ ; ONLY ONE BIRTH (RESPONDENT ONLY) [ ]		→ 1101
1003	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS . . . . . [ ][ ]	

		(1)	(2)	(3)	(4)	(5)	(6)
1004	What was the name given to your oldest (next oldest) brother or sister?	_____	_____	_____	_____	_____	_____
1005	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1006	Is (NAME) still alive?	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (2)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (3)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (4)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (5)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (6)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (7)
1007	How old is (NAME)?	[ ][ ] GO TO (2)	[ ][ ] GO TO (3)	[ ][ ] GO TO (4)	[ ][ ] GO TO (5)	[ ][ ] GO TO (6)	[ ][ ] GO TO (7)
1008	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1009	How old was (NAME) when he/she died?	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (2)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (3)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (4)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (5)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (6)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (7)
1010	Was (NAME) pregnant when she died?	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2
1011	Did (NAME) die during childbirth?	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2
1012	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1013	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]

GO BACK TO 1004 IN NEXT COLUMN, OR, IF NO MORE BROTHERS OR SISTERS, GO TO 1101.

1004	What was the name given to your oldest (next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
1005	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1006	Is (NAME) still alive?	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (8)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (9)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (10)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (11)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (12)	YES . . . 1 NO . . . 2 GO TO 1008 DK . . . 8 GO TO (13)
1007	How old is (NAME)?	[ ][ ] GO TO (8)	[ ][ ] GO TO (9)	[ ][ ] GO TO (10)	[ ][ ] GO TO (11)	[ ][ ] GO TO (12)	[ ][ ] GO TO (13)
1008	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1009	How old was (NAME) when he/she died?	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (8)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (9)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (10)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (11)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (12)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (13)
1010	Was (NAME) pregnant when she died?	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2
1011	Did (NAME) die during childbirth?	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2	YES . . . 1 GO TO 1013 NO . . . 2
1012	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1013	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
GO BACK TO 1004 IN NEXT COLUMN, OR, IF NO MORE BROTHERS OR SISTERS, GO TO 1101.							

SECTION 11. WOMEN'S STATUS MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	CHECK WOMEN'S STATUS BOX ON COVER PAGE: IS HOUSEHOLD SELECTED FOR WOMEN'S STATUS MODULE? YES ☐ NO ☐		→ 1235
1102	CHECK 601, 602, 603: CURRENT MARITAL STATUS	CURRENTLY MARRIED/ LIVING WITH A MAN . . . . . ☐ WIDOWED . . . . . ☐ DIVORCED . . . . . ☐ SEPARATED . . . . . ☐ NEVER MARRIED . . . . . ☐	→ 1111
1103	CHECK 610: NUMBER OF TIMES MARRIED MARRIED ONLY ONCE ☐ IGNORE WORDS IN PARENTHESES IN QUESTIONS 1104 - 1106. MARRIED MORE THAN ONCE ☐ 1) IF CURRENTLY MARRIED OR SEPARATED: USE (CURRENT) IN QUESTIONS 1104 - 1106. 2) IF CURRENTLY DIVORCED OR WIDOWED: USE (LAST) IN QUESTIONS 1104 - 1106.		
1104	I would like to ask some questions about your (current/last) marriage. How long had you known your (current/last) husband before you married him?	MET ON THE WEDDING DAY . . . . . 1 LESS THAN ONE MONTH . . . . . 2 1 MONTH TO LESS THAN 1 YEAR . . . 3 1 YEAR OR MORE . . . . . 4 KNEW SINCE CHILDHOOD . . . . . 5 OTHER 6	
1105	Who chose your (current/last) husband for you?	RESPONDENT CHOSE . . . . . 1 RESPONDENT AND HUSBAND CHOSE EACH OTHER . . . . . 2 RESPONDENT WITH SOMEONE ELSE CHOSE . . . . . 3 RESPONDENT'S FAMILY CHOSE . . . 4 HUSBAND OR HIS FAMILY CHOSE RESPONDENT . . . . . 5 SOMEONE ELSE CHOSE . . . . . 6 FORCED TO BE MARRIED BY HUSBAND 7	→ 1107 → 1107
1106	Was your consent sought when your (current/last) husband was being chosen for you, that is, were you asked whether you wanted to marry him or not?	YES . . . . . 1 NO 2	
1107	Did you sign a marriage contract in front of the (Commune/Sangkat) Authorities?	YES . . . . . 1 NO 2	
1108	Are you registered in your husband's household book or new family book as his wife?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1109	CHECK 1102: MARITAL STATUS CURRENTLY MARRIED ☐ ↓ SEPARATED/DIVORCED/ WIDOWED ☐ →		1111
1110	Do you and your husband talk about the following with each other often, sometimes, or never?	OFTEN / SOME-TIMES / NE-VER	
	a) Things that happen at his work/on the farm?	EVENTS AT WORK 1 2 3	
	b) Things that happen at home?	EVENTS AT HOME 1 2 3	
	c) What to spend money on?	MONEY MATTERS 1 2 3	
	d) Things that happen in the community?	COMMUNITY HAPPENINGS 1 2 3	
1111	Who in your family usually has the final say on making large household purchases?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1112	Who in your family usually has the final say on making household purchases for daily needs?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1113	Who in your family usually has the final say on whether you should do work to earn money?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1114	Who in your family usually has the final say on your own health care?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1115	Who in your family usually has the final say on whether to use contraception?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1116	Who in your family usually has the final say on visits to family, friends, or relatives?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1117	CHECK 202 AND 204: HAS LIVING CHILDREN HAS ONE OR MORE LIVING CHILDREN ☐ ↓	HAS NO LIVING CHILDREN ☐ →	1121
1118	Who in your family usually has the final say on any decisions about children's schooling?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1119	Who in your family usually has the final say on what to do if a child falls sick?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1120	Who in your family usually has the final say on whether to have another child?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY . . . . . 5 DECISION NOT MADE/NOT APPLIC . 6	
1121	Now I would like to get your opinion on some aspects of family life. Please tell me if you agree or disagree with each statement:	AGREE / DIS-AGREE / DK	
	a) The important decisions in the family should be made by the men of the family.	FAMILY DECISIONS BY MEN 1 2 8	
	b) If the wife is working outside the home, then the husband should help her with the household chores.	HUSBAND SHOULD HELP 1 2 8	
	c) A married woman should not be allowed to work outside the home even if she wants to.	WOMEN SHOULD NOT WORK 1 2 8	
	d) The wife has a right to express her opinion if she disagrees with what her husband is telling her.	WIFE TO EXPRESS OPINION 1 2 8	
	e) It is acceptable for a man to have sex outside his marriage.	SEX OUTSIDE MARRIAGE . 1 2 8	
	f) A wife should tolerate being beaten by her husband in order to keep the family together.	TOLERATE BEING BEATEN 1 2 8	
	g) It is better to educate a son than a daughter.	BETTER TO EDUCATE SON 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1122	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when:	YES NO DK	
	a) She knows her husband has a sexually transmitted disease or AIDS?	HAS STD/AIDS 1 2 8	
	b) She knows her husband has sex with other women?	OTHER WOMEN 1 2 8	
	c) She has recently given birth?	RECENT BIRTH 1 2 8	
	d) She is tired or not in the mood?	TIRED/MOOD 1 2 8	
1123	Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES NO DK	
	a) If she goes out without telling him.	GOES OUT 1 2 8	
	b) If she neglects the children?	NEGLECTS 1 2 8	
	c) If she argues with him?	ARGUES 1 2 8	
	d) If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	e) If food is late or not well prepared?	FOOD LATE 1 2 8	
1124	CHECK 1102: MARITAL STATUS MARRIED/SEPARATED/ WIDOWED ☐ ↓	DIVORCED/ NEVER MARRIED ☐	→ 1126
1125	Do any of your husband's relatives usually live with you? IF YES: Which of your husband's relatives usually live with you? RECORD ALL MENTIONED.	FATHER . . . . . A MOTHER . . . . . B BROTHER(S) . . . . . C SISTER(S) . . . . . D WIFE (WIVES) OF BROTHERS . . . . . E HUSBAND(S) OF SISTER(S) . . . . . F OTHER . . . . . X NO . . . . . Y	
1126	Now tell me about your birth family. Is your father currently living?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1127	Is your mother currently living?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1128	What is the highest level of school your father attended?	NONE . . . . . 1 PRIMARY . . . . . 2 SECONDARY . . . . . 3 HIGHER THAN SECONDARY . . . . . 4 DON'T KNOW 8	→ 1130
1129	(Could/Can) your father read a newspaper or letter?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1130	What is the highest level of school your mother attended?	NONE . . . . . 1 PRIMARY . . . . . 2 SECONDARY . . . . . 3 HIGHER THAN SECONDARY . . . . . 4 DON'T KNOW 8	→ 1132

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1131	(Could/Can) your mother read a newspaper or letter?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1132	Are any members of your birth family living close enough for you to be able to visit them and come home on the same day?	YES . . . . . 1 NO . . . . . 2 LIVING IN THE SAME HOUSE 3	
1133	If you need help or have a problem, is there someone from your family who you can depend on to: a) give you shelter for a few nights if you need it? b) give you financial support if you need it? c) give you advice?	YES NO DK SHELTER . . . . . 1 2 8 FINANCIAL . . . . . 1 2 8 ADVICE 1 2 8	
1134	Now I would like to ask you some questions about financial matters. I ask these questions only to understand more about the financial position of women. Please tell me if you alone, or jointly with someone else own the following: a) Land? b) This house/dwelling or the house/dwelling where you usually live? c) Any other house, apartment, or other dwelling? d) Jewelry or gems? e) Livestock such as ox, cow, buffalo? f) Car or motorbike?	YES ALONE / YES JOINTLY / DOES NOT OWN LAND . . . . . 1 2 3 THIS/USUAL DWELLING . . . . . 1 2 3 OTHER DWELLING . . . 1 2 3 JEWELRY . . . . . 1 2 3 LIVESTOCK . . . . . 1 2 3 CAR OR MOTORBIKE . 1 2 3	
1135	CHECK 1134: AT LEAST ONE '1' CIRCLED. OWNS AT LEAST ONE ASSET ALONE. ↓ NOT ONE '1' CIRCLED. DOES NOT OWN ANY ASSET ALONE. →		1137
1136	In an emergency, could you sell (any of) these assets without anyone else's permission? (ASK ONLY THOSE ASSETS CODED '1' IN 1134; FOR ASSETS CODED '2' OR '3' IN 1134, CIRCLE CODE '3'.) a) The Land? b) This house/dwelling where you usually live? c) The other house, apartment, or other dwelling? d) The jewelry or gems? e) The livestock? f) The car or motorbike?	YES NO DOES NOT OWN ALONE LAND . . . . . 1 2 3 USUAL DWELLING . . . 1 2 3 OTHER DWELLING . . . 1 2 3 JEWELRY . . . . . 1 2 3 LIVESTOCK . . . . . 1 2 3 CAR / MOTORBIKE . . . 1 2 3	
1137	Do you yourself control the money needed to buy the following things? a) Perishable food items like vegetables or fruits? b) Staple foods such as rice? c) Clothes for yourself/ d) Any kind of medicinal care for yourself? e) Toiletries for yourself like lipstick or perfume?	YES NO DOES NOT BUY PERISHABLE FOOD . 1 2 3 STAPLES . . . . . 1 2 3 CLOTHES . . . . . 1 2 3 MEDICINE . . . . . 1 2 3 TOILETRIES 1 2 3	
1138	Do you know of any programs in this area that give loans to women so they can start or expand a business of their own?	YES . . . . . 1 NO 2	
1139	Have you yourself ever taken out or been given a loan either in cash or in kind to start or expand a business?	YES . . . . . 1 NO 2	
1140	Are you a member of any type of association, group or club, which holds regular meetings?	YES . . . . . 1 NO 2	→ 1142

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1141	What kind of association, group, or club is it? RECORD ALL MENTIONED.	RELIGIOUS . . . . . A SOCIAL . . . . . B WOMEN'S ORGANIZATION . . . . . C LABOR UNION . . . . . D POLITICAL . . . . . E DEVELOPMENT COMMITTEE . . . . . F OTHER X	
1142	When there is a local or a national election of any kind do you vote always, sometimes, or never?	ALWAYS VOTES . . . . . 1 SOMETIMES VOTES . . . . . 2 NEVER VOTES . . . . . 3 TOO YOUNG TO VOTE . . . . . 4 NEVER AN ELECTION 5	
1143	Are you aware of the trafficking of women?	YES . . . . . 1 NO 2	
1144	Do you know if there are any laws in Cambodia protecting women's rights?	YES . . . . . 1 NO 2	 → 1201
1145	Could you tell me what laws you have heard about? RECORD ALL MENTIONED.	EQUAL RIGHTS . . . . . A MARRIAGE/DIVORCE . . . . . B LABOR . . . . . C ABORTION . . . . . D TRAFFICKING . . . . . E OTHER X	

SECTION 12. HOUSEHOLD RELATIONS MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1201	CHECK HOUSEHOLD RELATIONS BOX ON COVER PAGE: IS THIS WOMAN SELECTED FOR THE HOUSEHOLD RELATIONS MODULE? YES ☐ NO ☐ → 1235		
1202	CHECK FOR PRESENCE OF OTHERS. DO NOT CONTINUE UNTIL EFFECTIVE PRIVACY IS ENSURED. PRIVACY OBTAINED ☐ PRIVACY NOT POSSIBLE ☐ → 1235		
1203	READ TO ALL RESPONDENTS: Now I would like to ask you questions about some aspects of the relationship between couples. I know that some of these questions are very personal. However, your answers are very important for helping to understand the condition of women in Cambodia. Let me assure you that your answers are completely confidential and will not be told to anyone. No one in the household will be asked or hear the questions. The interviewing must pause if privacy is lost.		
1204	CHECK 601 AND 602: MARITAL STATUS CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ FORMERLY LIVED WITH A MAN (READ IN PAST TENSE) ☐ NEVER MARRIED ☐ → 1215		
1205	Now I am going to ask you about some situations which happen to some women. Please tell me if these phrases apply to your relationship with your (last) husband?	YES NO DK	
	a) He (is/was) jealous or angry if you (talk/talked) to other men?	JEALOUS 1 2 8	
	b) He frequently (accuses/accused) you of being unfaithful?	ACCUSES 1 2 8	
	c) He (does/did) not permit you to meet with your girl friends?	NOT MEET FRIENDS 1 2 8	
	d) He (tries/tried) to limit your contact with your family?	NO FAMILY 1 2 8	
	e) He (insists/insisted) on knowing where you (are/were) at all times?	WHERE YOU ARE 1 2 8	
	f) He (does/did) not trust you with any money?	MONEY 1 2 8	
1206	Now if you will permit me, I need to ask some more questions about your relationship with your (last) husband.		
	1206A. (Does/Did) your (last) husband ever:	1206B How many times did this happen during the last 12 months?	
	a) say or do something to humiliate you in front of others?	YES . . . 1 → NO . . . 2 ↓	a) NUMBER OF TIMES . . . . . ☐☐
	b) threaten you or someone close to you with harm?	YES . . . 1 → NO . . . 2 ↓	b) NUMBER OF TIMES . . . . . ☐☐
	c) swear at you?	YES . . . 1 → NO . . . 2 ↓	c) NUMBER OF TIMES . . . . . ☐☐

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
1207	1207A. (Does/Did) your (last) husband ever:		1207B. How many times did this happen during the last 12 months?	
	a) push you, shake you, or throw something at you?	YES . . . 1 → NO . . . 2 ↓	a) NUMBER OF TIMES . . . . . [ ][ ]	
	b) slap you or twist your arm?	YES . . . 1 → NO . . . 2 ↓	b) NUMBER OF TIMES . . . . . [ ][ ]	
	c) punch you with his fist or with something that could hurt you?	YES . . . 1 → NO . . . 2 ↓	c) NUMBER OF TIMES . . . . . [ ][ ]	
	d) kick you or drag you?	YES . . . 1 → NO . . . 2 ↓	d) NUMBER OF TIMES . . . . . [ ][ ]	
	e) try to strangle you or burn you?	YES . . . 1 → NO . . . 2 ↓	e) NUMBER OF TIMES . . . . . [ ][ ]	
	f) threaten you with a knife, gun, or other type of weapon?	YES . . . 1 → NO . . . 2 ↓	f) NUMBER OF TIMES . . . . . [ ][ ]	
	g) attack you with a knife, gun, or other type of weapon?	YES . . . 1 → NO . . . 2 ↓	g) NUMBER OF TIMES . . . . . [ ][ ]	
	h) physically force you to have sexual intercourse even when you did not want to?	YES . . . 1 → NO . . . 2 ↓	h) NUMBER OF TIMES . . . . . [ ][ ]	
	i) force you to perform types of other sexual acts you did not want to?	YES . . . 1 → NO . . . 2 ↓	i) NUMBER OF TIMES . . . . . [ ][ ]	
1208	CHECK 1207: AT LEAST ONE YES' [ ] ↓ NOT A SINGLE YES' [ ] →			1210
1209	How long after you first got married to your (last) husband did (this/any of these things) first happen? IF LESS THAN ONE YEAR ENTER '00'.		NUMBER OF YEARS . . . . . [ ][ ] BEFORE MARRIAGE . . . . . 95 AFTER SEPARATION/DIVORCE 96	
1210	1210A. Did the following ever happen because of something your (last) husband did to you:		1210B. How many times did this happen during the last 12 months?	
	a) You had bruises and aches?	YES . . . 1 → NO . . . 2 ↓	a) NUMBER OF TIMES . . . . . [ ][ ]	
	b) You had an injury or a broken bone?	YES . . . 1 → NO . . . 2 ↓	b) NUMBER OF TIMES . . . . . [ ][ ]	
	c) You went to a health facility as a result of something your husband had done to you?	YES . . . 1 → NO . . . 2 ↓	c) NUMBER OF TIMES . . . . . [ ][ ]	
1211	Have you ever hit, slapped, kicked or done anything else to physically hurt your (last) husband at times when he was not already beating or physically hurting you?		YES . . . . . 1 NO 2	→ 1213
1212	In the last 12 months, how many times have you hit, slapped, kicked or done something to physically hurt your (last) husband at a time when he was not already beating or physically hurting you?		NUMBER OF TIMES . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1213	(Does/Did) your (last) husband drink alcohol?	YES . . . . . 1 NO 2	→ 1215
1214	How often (does/did) he get drunk: very often, only sometimes, or never?	VERY OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
1215	From the time you were 15 years old has anyone (other than your current/last husband) hit, slapped, kicked, or done anything else to hurt you physically?	YES . . . . . 1 NO . . . . . 2 NO ANSWER 6	→ 1220
1216	Who has physically hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER . . . . . A FATHER . . . . . B STEP-MOTHER . . . . . C STEP-FATHER . . . . . D SISTER . . . . . E BROTHER . . . . . F DAUGHTER . . . . . G SON . . . . . H EX-HUSBAND . . . . . I MOTHER-IN-LAW . . . . . J FATHER-IN-LAW . . . . . K OTHER FEMALE IN-LAWS . . . . . L OTHER MALE IN-LAWS . . . . . M OTHER FEMALE RELATIVES . . . . . N OTHER MALE RELATIVES . . . . . O FEMALE FRIEND/ACQUAINTANCE . . . P MALE FRIEND/ACQUAINTANCE . . . . . Q TEACHER . . . . . R EMPLOYER . . . . . S POLICEMAN/MILITARY . . . . . T STRANGER . . . . . U OTHER X	
1217	CHECK 1216: MORE THAN ONE PERSON MENTIONED ↓ ONLY ONE PERSON MENTIONED →		1219

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1218	Who is the person who has hit, slapped, kicked, or done something to physically hurt you most often?	MOTHER . . . . . 01 FATHER . . . . . 02 STEP-MOTHER . . . . . 03 STEP-FATHER . . . . . 04 SISTER . . . . . 05 BROTHER . . . . . 06 DAUGHTER . . . . . 07 SON . . . . . 08 EX-HUSBAND . . . . . 09 MOTHER-IN-LAW . . . . . 10 FATHER-IN-LAW . . . . . 11 OTHER FEMALE IN-LAWS . . . . . 12 OTHER MALE IN-LAWS . . . . . 13 OTHER FEMALE RELATIVES . . . . . 14 OTHER MALE RELATIVES . . . . . 15 FEMALE FRIEND/ACQUAINTANCE . . . 16 MALE FRIEND/ACQUAINTANCE . . . . . 17 TEACHER . . . . . 18 EMPLOYER . . . . . 19 POLICEMAN/MILITARY . . . . . 20 STRANGER . . . . . 21 OTHER 96	
1219	In the last 12 months, how many times has this person hit, slapped, kicked, or done something to physically hurt you in any other way?	NUMBER OF TIMES . . . . . [ ][ ]	
1220	CHECK 208 FOR LIVE BIRTHS AND 229 FOR NON - LIVE BIRTHS CHECK 226 FOR CURRENTLY PREGNANT ONE OR MORE LIVE OR NON-LIVE BIRTHS [ ] ↓ CURRENTLY PREGNANT [ ] ↓ NO LIVE BIRTHS, NOT PREGNANT, AND NO NON-LIVE BIRTHS [ ]		→ 1223
1221	Has anyone ever hit, slapped, kicked, or done something else to hurt you physically during (any/this or any other) pregnancy?	YES . . . . . 1 NO 2	→ 1224
1222	Who has done any of these things to physically hurt you during pregnancy? Anyone else? RECORD ALL MENTIONED.	MOTHER . . . . . A FATHER . . . . . B STEP-MOTHER . . . . . C STEP-FATHER . . . . . D SISTER . . . . . E BROTHER . . . . . F DAUGHTER . . . . . G SON . . . . . H EX-HUSBAND . . . . . I MOTHER-IN-LAW . . . . . J FATHER-IN-LAW . . . . . K OTHER FEMALE IN-LAWS . . . . . L OTHER MALE IN-LAWS . . . . . M OTHER FEMALE RELATIVES . . . . . N OTHER MALE RELATIVES . . . . . O FEMALE FRIEND/ACQUAINTANCE . . . P MALE FRIEND/ACQUAINTANCE . . . . . Q TEACHER . . . . . R EMPLOYER . . . . . S POLICEMAN/MILITARY . . . . . T STRANGER . . . . . U HUSBAND . . . . . V OTHER X	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1223	CHECK 615: HAS HAD SEXUAL INTERCOURSE HAS NOT HAD SEXUAL INTERCOURSE		1228
1224	The first time that you had sexual intercourse, would you say that you had it because you wanted to, or because you were forced to have it against your will?	WANTED TO . . . . . 1 FORCED TO . . . . . 2 REFUSED ANSWER/NO RESPONSE . 3	1226 1226
1225	Were you physically forced?	YES . . . . . 1 NO . . . . . 2 REFUSED ANSWER/NO RESPONSE . 3	
1226	CHECK 601 AND 602: EVER MARRIED/LIVED WITH A MAN NEVER MARRIED/ NEVER LIVED WITH A MAN In the last 12 months, has anyone other than your (current/last) husband/ partner forced you to have sexual intercourse against your will? In the last 12 months has anyone forced you to have sexual intercourse against your will?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	 1228
1227	Were you physically forced?	YES . . . . . 1 NO . . . . . 2 REFUSED ANSWER/NO RESPONSE . 3	
1228	CHECK 1207, 1210, 1215 1221, 1224, AND 1226: AT LEAST ONE 'YES' IN 1207, 1210, 1215, 1221 CODE '2' CIRCLED IN 1224 CODE '1' CIRCLED IN 1226 OTHER		1232
1229	Have you ever tried to get help?	YES . . . . . 1 I KEPT IT QUIET . . . . . 2 NO 3	 1231
1230	From whom have you sought help? Anyone else? RECORD ALL MENTIONED.	MOTHER . . . . . A FATHER . . . . . B STEP-MOTHER . . . . . C STEP-FATHER . . . . . D SISTER . . . . . E BROTHER . . . . . F DAUGHTER . . . . . G SON . . . . . H EX-HUSBAND . . . . . I MOTHER-IN-LAW . . . . . J FATHER-IN-LAW . . . . . K OTHER FEMALE IN-LAWS . . . . . L OTHER MALE IN-LAWS . . . . . M OTHER FEMALE RELATIVES . . . . . N OTHER MALE RELATIVES . . . . . O FEMALE FRIEND/ACQUAINTANCE . . . P MALE FRIEND/ACQUAINTANCE . . . . . Q TEACHER . . . . . R EMPLOYER . . . . . S POLICEMAN/MILITARY . . . . . T STRANGER . . . . . U OTHER X	1232

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1231	What is the main reason you have never sought help?	DON'T KNOW WHO TO GO TO . . . . . 01 NO USE . . . . . 02 PART OF LIFE . . . . . 03 AFRAID OF DIVORCE/DESERTION . 04 AFRAID OF FURTHER BEATINGS . . . 05 AFRAID OF GETTING PERSON BEATING HER INTO TROUBLE . . . 06 EMBARRASSED . . . . . 07 NO MONEY . . . . . 08 OTHER _____ 96 (SPECIFY)	
1232	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
	THANK THE RESPONDENT AGAIN FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE IMPLEMENTATION OF THE HOUSEHOLD RELATIONS MODULE ONLY.		
1233	PRESENCE OF CHILDREN	PRESENT ALL THE TIME / PRESENT SOME OF THE TIME / NOT PRESENT CHILDREN UNDER 10 YEARS . . . . . 1 2 3 CHILDREN AGE 10 OR OLDER 1 2 3	
1234	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE THE LISTED PERSON WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERRUPTED IN ANY OTHER WAY?	YES ONCE / YES, MORE THAN ONCE / NO HUSBAND . . . . . 1 2 3 OTHER MALE ADULT . . . . . 1 2 3 FEMALE ADULT 1 2 3	
	INTERVIEWER'S COMMENTS ON THE HOUSEHOLD RELATIONS MODULE ONLY. _____ _____ _____ _____		
1235	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF THE SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

CAMBODIA DEMOGRAPHIC AND HEALTH SURVEY 2005
MAN'S QUESTIONNAIRE

MINISTRY OF PLANNING
NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH
NATIONAL INSTITUTE OF PUBLIC HEALTH

DOMAIN	DOMAIN
PROVINCE _____	PROVINCE
DISTRICT _____	DISTRICT
COMMUNE _____	COMMUNE
VILLAGE _____	VILLAGE
NAME OF HOUSEHOLD HEAD _____	
CLUSTER NUMBER	CLUSTER
HOUSEHOLD NUMBER	HOUSEHOLD
NAME AND LINE NUMBER OF MAN _____	

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR 2 0
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER
RESULT *	_____	_____	_____	RESULT *
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1 - RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the Ministry of Health and Ministry of Planning. We are conducting a national health survey. We would very much appreciate your participation in this survey. I would like to ask you about some important health issues. This information will help the government to plan health services. The survey usually takes around 20 minutes to complete.

Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	In what month and year were you born? IF RESPONDENT DOES NOT KNOW GREGORIAN MONTH AND YEAR OF BIRTH, ASK FOR KHMER MONTH AND YEAR. USE DATE CONVERSION CHART. _____ (SPECIFY KHMER MONTH AND YEAR OF BIRTH)	GREGORIAN MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 GREGORIAN YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? IF GREGORIAN DATE IS RECORDED IN 102, COMPARE AGE TO DATE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 107
105	What is the highest level of school you attended: primary, lower secondary, upper secondary, or higher?	PRIMARY . . . . . 1 LOWER SECONDARY . . . . . 2 UPPER SECONDARY . . . . . 3 HIGHER 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	What is the highest grade you completed at that level? RECORD '00' IF LESS THAN ONE GRADE COMPLETED AT THAT LEVEL.	GRADE . . . . . [ ][ ]	
107	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL . . . . . 4 CANNOT READ 8	
108	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
109	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
113	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 115
113A	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation or any other such reason?	YES . . . . . 1 NO 2	→ 115
114	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 116
115	What is your occupation, that is, what kind of work do you mainly do? PROBE TO OBTAIN DETAILED INFORMATION ON THE KIND OF WORK RESPONDENT DOES.	_____ [ ][ ]	→ 117
116	What have you been doing for most of the time over the last 12 months?	GOING TO SCHOOL/STUDYING . . . 01 LOOKING FOR WORK . . . . . 02 RETIRED . . . . . 03 TOO ILL TO WORK . . . . . 04 HANDICAPPED, CANNOT WORK . . . 05 HOUSEWORK/CHILD CARE . . . . . 06 OTHER _____ 96 (SPECIFY)	
117	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
118	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS . . . . . [ ][ ] NONE 00	 → 121
119	In the last 12 months, have you been away from your home community for more than one month at a time?	YES . . . . . 1 NO 2	→ 121
120	In the last 12 months, have you been away from your home community for more than one month in total, all trips together?	YES . . . . . 1 NO 2	
121	What is your religion?	BUDDHIST . . . . . 1 MOSLEM . . . . . 2 CHRISTIAN . . . . . 3 OTHER 4	
122	Some men are circumcised. Are you circumcised?	YES . . . . . 1 NO 2	

SECTION 2 - REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all of the children you have had during your lifetime. I am interested only in the children that are biologically yours. Have you fathered any children with any woman?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters whom you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons are living with you? And how many daughters are living with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters whom you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . [ ][ ]	
206	Have you ever fathered a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: To make sure that I have this right: you have fathered in TOTAL _____ births during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		
215	Are you the primary care giver for any of your own children or other children?	YES . . . . . 1 NO 2	→ 301
216	Are any of these children for whom you are the primary caregiver under the age of 18 years ?	YES . . . . . 1 NO 2	→ 301
217	Now I would like to ask you about the children who are under the age of 18 years and for whom you are the primary caregiver. Have you made arrangements for someone to care for these children in the event that you fall sick or are unable to care for them?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	

SECTION 3 - MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	→ 304
302	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→ 310
303	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 307
304	Is your wife/partner living with you now or is she staying elsewhere?	LIVING TOGETHER . . . . . 1 STAYING ELSEWHERE 2	
305	Please tell me the name of (your wife/the woman you are living with). RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR SPOUSE OR LIVE-IN PARTNER. IF THE PERSON IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . [ ][ ]	
306	How old was your wife/partner on her last birthday?	AGE OF WIFE/PARTNER IN COMPLETED YEARS . . . . . [ ][ ]	
307	Have you been married or lived with only one woman or more than one woman?	ONLY ONE . . . . . 1 MORE THAN ONE 2	
308	CHECK 307: MARRIED/LIVED WITH A WOMAN ONLY ONCE → In what month and year did you start living with your wife/partner? MARRIED/ LIVED WITH A WOMAN MORE THAN ONCE → Now I would like to ask about when you started living with a woman as if married for the very first time. What month and year was that? IF RESPONDENT DOES NOT KNOW GREGORIAN DATE, ASK FOR KHMER MONTH AND YEAR OF MARRIAGE. USE DATE CONVERSION CHART TO FIND GREGORIAN MONTH AND YEAR. _____ (SPECIFY KHMER MONTH AND YEAR OF MARRIAGE)	GREGORIAN MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 GREGORIAN YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 310
309	How old were you when you first started living with her?	AGE . . . . . [ ][ ]	
310	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
311	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you had sexual intercourse for the very first time?	NEVER . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	→ 313 → 313
312	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 340
313	CHECK 103: 15-24 YEARS OLD [ ] ↓ 25-49 YEARS OLD [ ]		→ 318
314	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
315	How old was the person you first had sexual intercourse with?	AGE OF PARTNER . . . . . [ ][ ] DON'T KNOW 98	→ 318
316	Was this person older than you, younger than you, or about the same age as you?	OLDER . . . . . 1 YOUNGER . . . . . 2 ABOUT THE SAME AGE . . . . . 3 DON'T KNOW/DON'T REMEMBER . . . 8	→ 318
317	Would you say this person was ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER . . . . . 1 LESS THAN TEN YEARS OLDER . . . 2 OLDER, UNSURE HOW MUCH 3	
318	When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO. IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS.	NUMBER OF DAYS AGO . . . 1 [ ][ ] NUMBER OF WEEKS AGO . . . . 2 [ ][ ] NUMBER OF MONTHS AGO . . 3 [ ][ ] NUMBER OF YEARS AGO . . . . 4 [ ][ ]	→ 334

		MOST RECENT SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
319	The last time you had sexual intercourse with this person, was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 322)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 322)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 322)
320	Why did you use a condom?	BIRTH SPACING . . . 1 HIV PREVENTION . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY)	BIRTH SPACING . . . 1 HIV PREVENTION . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY)	BIRTH SPACING . . . 1 HIV PREVENTION . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY)
321	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
322	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND/GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '02' IF NO, CIRCLE '03'	HUSBAND/WIFE . . . . . 01 (SKIP TO 324) LIVE-IN PARTNER . . . . 02 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 03 CASUAL ACQUAINTANCE . . . . 04 COMMERCIAL SEX WORKER . . . . 05 OTHER _____96 (SPECIFY)	HUSBAND/WIFE . . . . . 01 (SKIP TO 324) LIVE-IN PARTNER . . . . 02 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 03 CASUAL ACQUAINTANCE . . . . 04 COMMERCIAL SEX WORKER . . . . 05 OTHER _____96 (SPECIFY)	HUSBAND/WIFE . . . . . 01 (SKIP TO 324) LIVE-IN PARTNER . . . . 02 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 03 CASUAL ACQUAINTANCE . . . . 04 COMMERCIAL SEX WORKER . . . . 05 OTHER _____96 (SPECIFY)
323	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . . . 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS . . . 3 [ ][ ]	DAYS . . . 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS . . . 3 [ ][ ]	DAYS . . . 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS . . . 3 [ ][ ]
324	The last time you had sexual intercourse with this person, did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 326)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 326)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 327)
325	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4
326	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 319 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 328)	YES . . . . . 1 (GO BACK TO 319 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 328)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
327	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF PARTNERS LAST 12 MONTHS . . . . . [ ][ ][ ] DON'T KNOW 998	
328	Have you heard of men having sex with men?	YES . . . . . 1 NO 2	→ 330
329	Have you ever had sex with a man?	YES . . . . . 1 NO 2	
330	CHECK 322: NO PARTNERS ARE COMMERCIAL SEX WORKERS ↓ [ ] AT LEAST ONE PARTNER A COMMERCIAL SEX WORKER [ ] → 334		
331	In the last 12 months, did you pay anyone in exchange for sex?	YES . . . . . 1 NO 2	→ 334
332	The last time you paid someone in exchange for sex, was a condom used?	YES . . . . . 1 NO 2	→ 334
333	Did you use a condom during every sexual intercourse every time you paid someone in exchange for sex in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DK 8	
334	In total, with how many different partners have you had sexual intercourse in your life? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF PARTNERS IN LIFE . . . . . [ ][ ][ ] DON'T KNOW 998	
335	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL EFFECTIVE PRIVACY IS ENSURED.	PRIVACY OBTAINED . . . . . 1 PRIVACY NOT POSSIBLE 2	→ 340
336	The first time you had sexual intercourse, would you say that you had it because you wanted to, or because you were forced to have it against your will?	WANTED TO . . . . . 1 FORCED TO . . . . . 2 REFUSED TO ANSWER/ NO RESPONSE 3	→ 338 → 338
337	Were you physically forced?	YES . . . . . 1 NO 2	
338	In the last 12 months, has anyone forced you to have sexual intercourse against your will?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO RESPONSE 3	→ 340
339	Were you physically forced?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
340	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	 → 401
341	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G OTHER PUBLIC _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J OTHER PRIV. MEDICAL _____ K (SPECIFY) OTHER SOURCE SHOP . . . . . L COMMUNITY DISTRIBUTOR . . . . . M FRIEND/RELATIVE . . . . . N OTHER _____ X (SPECIFY)	

SECTION 4 - HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	 → 435
402	Can people reduce their chances of getting the AIDS virus by having just one sex partner who is not infected and who has no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
403	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
404	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
405	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
406	Can people reduce their chance of getting the AIDS virus by abstaining from sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
407	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
408	Is there anything else a person can do to avoid or reduce the chances of getting the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 → 410
409	What can a person do? Anything else? RECORD ALL WAYS MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH PROSTITUTES . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . G AVOID SEX WITH PERSONS WHO INJECT DRUGS . . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I AVOID INJECTIONS . . . . . J AVOID SHARING RAZORS/BLADES . K AVOID KISSING . . . . . L AVOID MOSQUITO BITES . . . . . M SEEK PROTECTION FROM TRADITIONAL PRACTITIONER . . . N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
410	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
411	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREGNACY . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
412	CHECK 411: AT LEAST ONE 'YES' NO CODE '1' CIRCLED		414
413	Are there any special medications that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
414	Is there any special medication that people infected with the AIDS virus can get from a doctor or a nurse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
415	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	420
416	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
417	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
418	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
419	Where was the test done? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 VCCT CENTER . . . . . 18 PMTCT SITE . . . . . 19 OTHER PUBLIC _____ 20 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PRIVATE LABORATORY . . . . . 23 OTHER PRIV. MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 422
420	Do you know of a place where people can go to get tested for the virus that causes AIDS?	YES . . . . . 1 NO 2	→ 422
421	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G VCCT CENTER . . . . . H PMTCT SITE . . . . . I OTHER PUBLIC _____ J (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . K PRIVATE CLINIC . . . . . L PRIVATE LABORATORY . . . . . M OTHER PRIV. MEDICAL _____ N (SPECIFY) OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
422	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
423	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
424	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
425	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
426	Do you personally know someone who has been denied health services in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 8	→ 431
427	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO 2	
428	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO 2	
429	CHECK 426, 427, 428: NO CODE '1' CIRCLED ☐ ↓ AT LEAST ONE 'YES' ☐		→ 431
430	Do you personally know someone who is suspected to have the AIDS virus or who has the AIDS virus?	YES . . . . . 1 NO 2	
431	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
432	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
433	Should children age 12-14 be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
434	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
435	Do you believe that young men should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
436	Do you think that most young men you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
437	Do you believe that men who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
438	Do you think that most men you know who are not married and are having sex, have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
439	Do you believe that married men should only have sex with their wives?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
440	Do you think that most married men you know have sex only with their wives?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
441	Do you believe that young women should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
442	Do you think that most young women you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
443	Do you believe that women who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
444	Do you think that most women you know who are not married and are having sex, have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
445	Do you believe that married women should only have sex with their husbands?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
446	Do you think that most married women you know have sex only with their husbands?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

SECTION 5 - OTHER REPRODUCTIVE HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: ☐ HEARD ABOUT AIDS Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? ☐ NOT HEARD ABOUT AIDS Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
502	CHECK 311: HAS HAD SEXUAL INTERCOURSE ☐ HAS NOT HAD SEXUAL INTERCOURSE ☐ → 510		
503	CHECK 501: HEARD ABOUT INFECTION TRANSMITTED THROUGH SEXUAL CONTACT ☐ HAS NOT HEARD ABOUT INFECTION TRANSMITTED THROUGH SEXUAL CONTACT ☐ → 505		
504	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
505	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
506	Sometimes men have a sore or ulcer on or near their penis. During the last 12 months, have you had an ulcer or sore on or near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
507	CHECK 504, 505, AND 506: HAS HAD AN INFECTION (ANY 'YES') ☐ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ → 510		
508	The last time you had (PROBLEM FROM 505/506/507), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 510

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
509	Where did you go? Any other place? RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G VCCT CENTER . . . . . H PMTCT SITE . . . . . I STD CLINIC . . . . . J NGO CLINIC . . . . . K OTHER PUBLIC _____ L (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . M PRIVATE CLINIC . . . . . N PRIVATE LABORATORY . . . . . O STD CLINIC . . . . . P NGO CLINIC . . . . . Q OTHER PRIV. MEDICAL _____ R (SPECIFY) OTHER _____ X (SPECIFY)	
510	Now I would like to ask you some questions about any injections you have had in the last 12 months. Have you had an injection for any reason in the last 12 months? IF YES: How many injections did you have? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 514
511	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health workers? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 514

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
512	The last time you had an injection given to you by a health worker, where did you go to get the injection?	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 OTHER PUBLIC _____ 18 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 DENTAL CLINIC/OFFICE . . . . . 22 PHARMACY . . . . . 23 OFFICE OR HOME OF NURSE/ HEALTH WORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER PLACE AT HOME . . . . . 31 OTHER _____ 96 (SPECIFY)	
513	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
514	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when she knows he has a disease that can be transmitted through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
515	When a wife knows her husband has a disease that can be transmitted through sexual contact, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
516	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF THE SUPERVISOR: _____ DATE: _____