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Abortion Surveillance — United States, 1989

Influenza Surveillance — United States, 1991–92

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Contents

Most Recent Reports Published in the MMWR Surveillance Summaries

Subject	Responsible CIO*	Most Recent Report
Abortion	NCCDPHP	1992; Vol. 41, No. SS-5
AIDS/HIV		
Distribution by Racial/Ethnic Group	NCID	1988; Vol. 37, No. SS-3
Among Black and Hispanic Children and Women of Childbearing Age	NCEHIC	1990; Vol. 39, No. SS-3
Behavioral Risk Factors	NCCDPHP	1991; Vol. 40, No. SS-4
Birth Defects		
B.D. Monitoring Program (see also Malformations)	NCEHIC	1990; Vol. 39, No. SS-4
Contribution of B.D. to Infant Mortality Among Minority Groups	NCEHIC	1990; Vol. 39, No. SS-3
Breast and Cervical Cancer	NCCDPHP	1992; Vol. 41, No. SS-2
Campylobacter	NCID	1988; Vol. 37, No. SS-2
Chancroid	NCPS	1992; Vol. 41, No. SS-3
Cholera	NCID	1992; Vol. 41, No. SS-1
Coal Workers' Health (see also Mining)	NIOSH	1985; Vol. 34, No. 1SS
Congenital Malformations, Minority Groups	NCEHIC	1988; Vol. 37, No. SS-3
Contraception Practices	NCCDPHP	1992; Vol. 41, No. SS-4
Cytomegalovirus Disease, Congenital	NCID	1992; Vol. 41, No. SS-2
Dengue	NCID	1985; Vol. 34, No. 2SS
Dental Caries and Periodontal Disease Among Mexican-American Children	NCPS	1988; Vol. 37, No. SS-3
Dracunculiasis	NCID	1992; Vol. 41, No. SS-1
Ectopic Pregnancy	NCCDPHP	1990; Vol. 39, No. SS-4
Ectopic Pregnancy, Mortality	NCCDPHP	1987; Vol. 36, No. SS-2
Elderly, Hospitalizations Among	NCCDPHP	1991; Vol. 40, No. SS-1
Endometrial and Ovarian Cancers	EPO, NCCDPHP	1986; Vol. 35, No. 2SS
Escherichia coli O157	NCID	1991; Vol. 40, No. SS-1
Evacuation Camps	EPO	1992; Vol. 41, No. SS-4
Foodborne Disease	NCID	1990; Vol. 39, No. SS-1
Gonococcal Infection	NCPS, NCID	1984; Vol. 33, No. 4SS
Gonorrhea and Salpingitis, Teenagers	NCPS, NCID	1983; Vol. 32, No. 3SS
Health Surveillance Systems	IHPO	1992; Vol. 41, No. SS-4
Hepatitis	NCID	1985; Vol. 34, No. 1SS
Hepatitis, Viral	NCID	1983; Vol. 32, No. 2SS
Homicide	NCEHIC	1992; Vol. 41, No. SS-3
Homicides, Black Males	NCEHIC	1988; Vol. 37, No. SS-1
Hysterectomy	NCCDPHP	1986; Vol. 35, No. 1SS
Infant Mortality (see also National Infant Mortality; Birth Defects; Postneonatal Mortality)	NCEHIC	1990; Vol. 39, No. SS-3
Influenza	NCID	1992; Vol. 41, No. SS-5
Injury		
Death Rates, Blacks and Whites	NCEHIC	1988; Vol. 37, No. SS-3
Drownings	NCEHIC	1988; Vol. 37, No. SS-1
Falls, Deaths	NCEHIC	1988; Vol. 37, No. SS-1
Firearm-Related Deaths, Unintentional	NCEHIC	1988; Vol. 37, No. SS-1
In Developing Countries	NCEHIC	1992; Vol. 41, No. SS-1
In the Home, Persons <15 Years of Age	NCEHIC	1988; Vol. 37, No. SS-1
Motor Vehicle-Related Deaths	NCEHIC	1988; Vol. 37, No. SS-1
Objectives of Injury Control, State and Local	NCEHIC	1988; Vol. 37, No. SS-1
Objectives of Injury Control, National	NCEHIC	1988; Vol. 37, No. SS-1
Residential Fires, Deaths	NCEHIC	1988; Vol. 37, No. SS-1
Tap Water Scalds	NCEHIC	1988; Vol. 37, No. SS-1
Lead Poisoning, Childhood	NCEHIC	1990; Vol. 39, No. SS-4
Low Birth Weight	NCCDPHP	1990; Vol. 39, No. SS-3

*All abbreviations are listed at end of inventory. Readers should check individual summaries when more than one CIO is responsible.

Most Recent Reports Published in the MMWR Surveillance Summaries — Continued

Subject	Responsible CIO*	Most Recent Report
Malaria, Imported	NCID	1983; Vol. 32, No. 3SS
Malformations (see also Birth Defects)	NCEHIC	1985; Vol. 34, No. 2SS
Maternal Mortality	NCCDPHP	1991; Vol. 40, No. SS-2
Measles	NCPS	1992; Vol. 41, No. SS-4
Mining (see also Coal Workers' Health)	NIOSH	1986; Vol. 35, No. 2SS
National Infant Mortality (see also Infant Mortality; Birth Defects)	NCCDPHP	1989; Vol. 38, No. SS-3
Nosocomial Infection	NCID	1986; Vol. 35, No. 1SS
Occupational Injuries/Disease		
Among Loggers	NIOSH	1983; Vol. 32, No. 3SS
Hazards, Occupational	NIOSH	1985; Vol. 34, No. 2SS
In Meatpacking Industry	NIOSH	1985; Vol. 34, No. 1SS
State Activities	NIOSH	1987; Vol. 36, No. SS-2
Treated in Hospital Emergency Rooms	NIOSH	1983; Vol. 32, No. 2SS
Ovarian Cancer (see Endometrial and Ovarian Cancers)		
Parasites, Intestinal	NCID	1991; Vol. 40, No. SS-4
Pediatric Nutrition	NCCDPHP	1983; Vol. 32, No. 4SS
Pelvic Inflammatory Disease	NCPS	1983; Vol. 32, No. 4SS
Plague	NCID	1985; Vol. 34, No. 2SS
Plague, American Indians	NCID	1988; Vol. 37, No. SS-3
Pneumoconiosis, Coal Miners	NIOSH	1983; Vol. 32, No. 1SS
Poliomyelitis	NCPS	1992; Vol. 41, No. SS-1
Postneonatal Mortality	NCCDPHP	1991; Vol. 40, No. SS-2
Pregnancy, Teenage	NCCDPHP	1987; Vol. 36, No. 1SS
Psittacosis	NCID	1983; Vol. 32, No. 1SS
Rabies	NCID	1989; Vol. 38, No. SS-1
Racial/Ethnic Minority Groups	Various	1990; Vol. 39, No. SS-3
Respiratory Disease	NCEHIC	1992; Vol. 41, No. SS-4
Reye Syndrome	NCID	1984; Vol. 33, No. 3SS
Rocky Mountain Spotted Fever	NCID	1984; Vol. 33, No. 3SS
Rotavirus	NCID	1992; Vol. 41, No. SS-3
Rubella and Congenital Rubella	NCPS	1984; Vol. 33, No. 4SS
Salmonella	NCID	1988; Vol. 37, No. SS-2
Salpingitis (see Gonorrhea and Salpingitis)		
Sexually Transmitted Diseases in Italy	NCPS	1992; Vol. 41, No. SS-1
Smoking	NCCDPHP	1990; Vol. 39, No. SS-3
Sudden Unexplained Death Syndrome Among Southeast Asian Refugees	NCEHIC, NCPS	1987; Vol. 36, No. 1SS
Suicides, Persons 15–24 Years of Age	NCEHIC	1988; Vol. 37, No. SS-1
Summer Mortality	NCEHIC	1983; Vol. 32, No. 1SS
Syphilis	NCPS	1991; Vol. 40, No. SS-3
Toxic-Shock Syndrome	NCID	1984; Vol. 33, No. 3SS
Trichinosis	NCID	1991; Vol. 40, No. SS-3
Tubal Sterilization Among Women	NCCDPHP	1983; Vol. 32, No. 3SS
Tuberculosis	NCPS	1991; Vol. 40, No. SS-3
Water-Related Disease	NCID	1991; Vol. 40, No. SS-3

Abbreviations

NCCDPHP	National Center for Chronic Disease Prevention and Health Promotion
NCEHIC	National Center for Environmental Health and Injury Control
NCID	National Center for Infectious Diseases
CIO	Centers/Institute/Offices
NCPS	National Center for Prevention Services
EPO	Epidemiology Program Office
IHPO	International Health Program Office
NIOSH	National Institute for Occupational Safety and Health

Abortion Surveillance—United States, 1989

Lisa M. Koonin, M.N., M.P.H.
Jack C. Smith, M.S.
Merrell Ramick
Herschel W. Lawson, M.D.
Division of Reproductive Health
National Center for Chronic Disease Prevention and Health Promotion

Summary

Since 1980, the number of legal induced abortions reported to CDC has remained stable, varying each year by <5%. In 1989, 1,396,658 abortions were reported—a 1.9% increase from 1988. The abortion ratio for 1989 was 346 legal induced abortions/1,000 live births, and the abortion rate was 24/1,000 women ages 15–44 years. The abortion ratio was highest for black women and women of other minority racial groups and for women <15 years of age. Overall, women undergoing abortions tended to be young, white, and unmarried; to have had no previous live births; and to be having the procedure for the first time. Approximately half of all abortions were performed before the eighth week of gestation, and 87% were before the thirteenth week of gestation. Younger women tended to obtain abortions later in pregnancy than older women.

This report also includes newly reported abortion-related deaths for 1986 and 1987, as well as an update on abortion-related deaths for the period 1978–1985. Ten deaths in 1986 and six deaths in 1987 were associated with legal induced abortion. The case-fatality rate in 1986 was 0.8 abortion-related deaths/100,000 legal induced abortions and 0.4/100,000 in 1987.

INTRODUCTION

In 1969, CDC began surveillance of abortions to document the number and characteristics of women obtaining legal induced abortions and to assist efforts to identify and reduce preventable causes of morbidity and mortality associated with abortions. This report summarizes surveillance findings for 1989 and, as in past years, is based on abortion data provided to the Division of Reproductive Health (DRH), National Center for Chronic Disease Prevention and Health Promotion, CDC. It also includes newly reported abortion-related deaths for 1986 and 1987, as well as an update on abortion-related deaths for the period 1978–1985.

METHODS

For 1989, DRH tabulated data received from 52 reporting areas: the 50 states, New York City, and the District of Columbia. The total number of legal induced abortions was available from all reporting areas, most of which provided information on the characteristics of women obtaining abortions. For 45 reporting areas, data were provided from the central health agency;* for the remaining seven reporting areas, data

*Includes state health departments and the health departments of New York City and the District of Columbia.

were provided from hospitals and other medical facilities. Data are reported by the state in which the abortion occurred.

Ages of women obtaining legal induced abortion were grouped by 5-year intervals. Race was categorized either into three groups (white, black, and all other races) or into two groups (white or black/other races).

Abortion statistics for 1989 and selected previous years have been analyzed by the characteristics of the women obtaining legal abortions (Table 1). Abortion ratios and rates for the years 1970–1989 have been calculated (Table 2). State-specific characteristics of women obtaining abortions in 1989 are presented (Tables 3 through 11), and overall tabulations of selected characteristics are given (Tables 12 through 14). For the first time since 1981, this yearly report includes state-specific tables presenting data for race, marital status, number of previous live births, and number of previous induced abortions.

CDC has periodically reported data on abortion-related deaths since 1972. Sources for reporting such deaths include national and state vital records, maternal mortality review committees, surveys, private citizens, the media, health-care providers, and medical examiner reports. Clinical records and autopsy reports are requested and reviewed by a medical epidemiologist to determine the cause of death and to verify that the death was abortion related.

An abortion-related death was defined as a death resulting from a) a direct complication of an abortion, b) an indirect complication caused by the chain of events initiated by the abortion, or c) aggravation of a preexisting condition by the physiologic or psychologic effects of the abortions. Each death was then further categorized as legal induced, illegal induced, spontaneous, unknown (as to whether the death was related to a legal induced, illegal induced, or spontaneous abortion), or not abortion related.

Abortion-related deaths that occurred during the period 1986–1987 are presented in this report (Table 15). Updated totals for the years 1978–1985 include additional abortion-related deaths identified and classified during the coding and analysis of data collected for a national Retrospective Maternal Mortality Study (*1*).

RESULTS

In 1989, 1,396,658 legal abortions were reported to CDC—a 1.9% increase over the number reported for 1988 (Table 1) (*2*). The national abortion rate increased from 23 abortions/1,000 women ages 15–44 in 1986 to 24/1,000 in 1987 and remained at that rate in 1988 and 1989 (Table 2, Figure 1). The abortion ratio rose slightly from 354 abortions/1,000 live births in 1986 to 356/1,000 in 1987, declined to 352 in 1988, and declined again to 346 in 1989.

In 1989, as in previous years, the most abortions performed were in California, New York City, and Texas; the fewest were performed in Wyoming, South Dakota, Alaska, and Idaho (Table 3) (*2,3*). Of women whose state of residence was known, 91% had the abortion performed within that state. The percentage of abortions obtained by out-of-state residents ranged from approximately 52% in the District of Columbia to <1% in Hawaii. Data on abortions obtained by out-of-state residents were not available for 12 reporting areas in 1989.

Thirty-nine states, the District of Columbia, and New York City reported legal abortions by age in 1989. Women 20–24 years of age had approximately 32% of all

abortions, whereas women <15 years of age had about 1% (Table 4). Abortion ratios were highest for the youngest women (886 abortions/1,000 live births for women <15 years of age and 560/1,000 for women 15–19 years of age) and the oldest women (496/1,000 for women ≥40 years of age); the ratio was lowest for women ages 30–34 (187/1,000) (Figure 2). Among teenagers, the abortion ratio was highest for those <15 years old and lowest for 19-year-olds (Table 5).

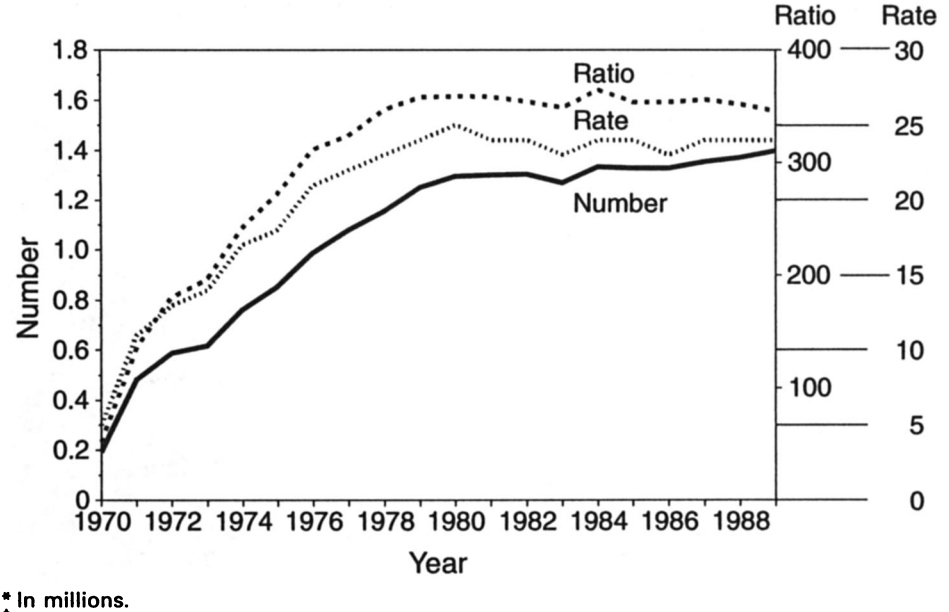
For most age groups, the abortion ratio rose from 1974 to 1980 and declined thereafter, particularly for women at the age extremes, i.e., women <15 years, 35–39 years, and ≥40 years of age (Figure 3). The abortion ratio for women <15 years of age was consistently the highest of any age group. However, in 1989, the ratio for these youngest women was the lowest recorded for this group since 1974. The abortion ratio for women ages 20–34 (the group with the highest fertility rate) has remained stable since 1974 (*4*).

In 1989, approximately 49% of reported legal abortions were performed before 8 weeks of gestation, and 87% were done before 13 weeks (Table 6). Approximately 4% of the abortions were performed at 16–20 weeks of gestation, and 1% at ≥21 weeks.

Approximately 98% of legal abortions were performed by curettage, and <1% by intrauterine saline or prostaglandin instillation (Table 7). Hysterectomy and hysterotomy were rarely used; <0.02% of abortions were performed by these methods.

In 1989, 31 states, the District of Columbia, and New York City reported legal abortions by race. As noted in previous reports, almost two-thirds of women obtaining abortions were white (Table 8) (*2,3*). The abortion ratio for black women, however,

FIGURE 1. Number,* ratio,† and rate§ of legal abortions, by year — United States, 1970–1989



* In millions.
† Per 1,000 live births.
§ Per 1,000 women ages 15–44.

FIGURE 2. Abortion ratio, by age group — United States, 1989

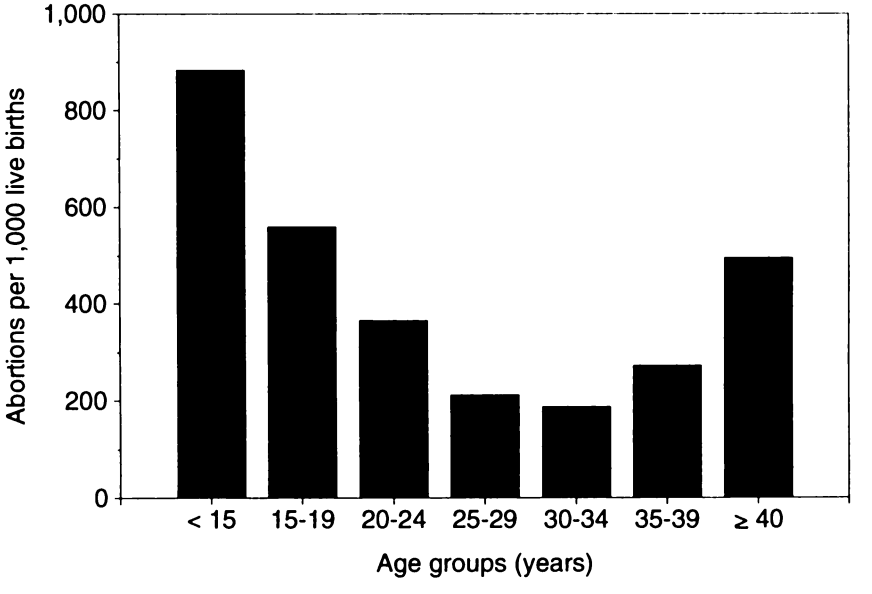
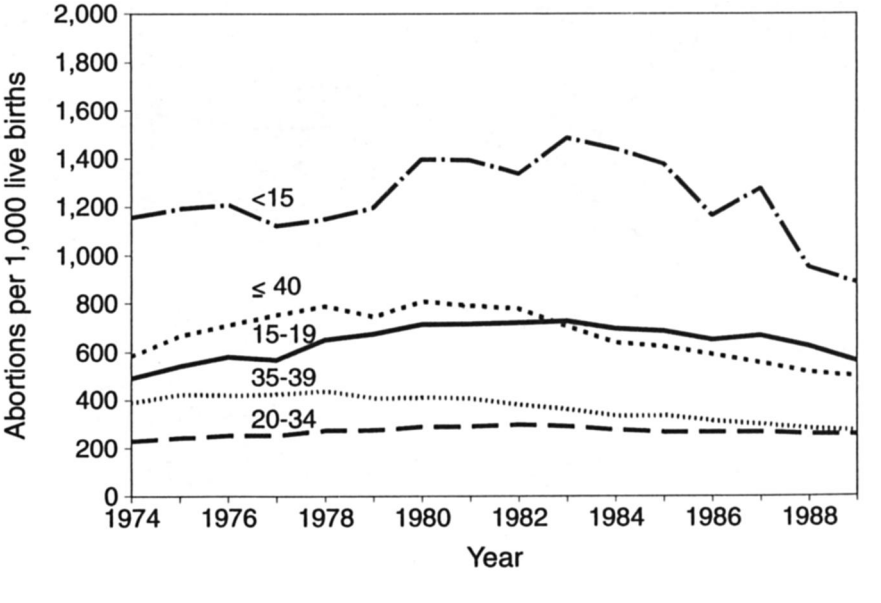


FIGURE 3. Abortion ratio, by age group and year — United States, 1974–1989



was about twice as high as that for white women (496 versus 252/1,000 live births). The abortion ratio for women of other racial groups (Table 8) was 1.3 times higher (338/1,000 live births) than that for white women.

In 1989, approximately 78% of women obtaining abortions were unmarried (Table 9). This proportion varied by state, from 62% in Utah to almost 95% in New York State. The abortion ratio was 11.4 times higher for unmarried women than for married women: 921 versus 81 abortions/1,000 live births.

Approximately 51% of the women obtaining legal abortions had had no previous live births, and about 89% had had two or fewer live births (Table 10). The abortion ratio was highest for women who had had no live births and lowest for women who had had one live birth.

Approximately 57% of women obtaining abortions were having the procedure for the first time, and approximately 15% had had at least two previous abortions (Table 11).

When the proportion of women undergoing legal abortion was analyzed by race and age group, few differences were found between white women and women in black/other racial groups (Table 12). However, the proportion of women <15 years old in black/other racial groups who had an abortion was more than twice that of white women in this age group. When the proportion of women undergoing legal abortion was analyzed by race and marital status, a slightly higher proportion of unmarried women in black/other racial groups was noted (81.7% of women of black/other races versus 78.1% of white women).

Overall, most women obtained abortions during the first 12 weeks of pregnancy. However, women <15 years of age were more likely to obtain abortions later in pregnancy than were older women (Table 13). The proportion of women obtaining an early abortion (≤8 weeks) increased with age, and the proportion obtaining a late abortion (≥16 weeks) decreased with age (Figure 4). Women in black/other racial groups tended to obtain abortions later in pregnancy than did white women.

When the data are analyzed by gestational age, about 99% of abortions at ≤12 weeks of gestation were performed by curettage (primarily suction procedures) (Table 14). Beyond 12 weeks of gestation, the most common procedure was curettage, which was usually reported as dilatation and evacuation (D&E). Most intrauterine instillations involved the use of saline and were usually performed at ≥16 weeks of gestation.

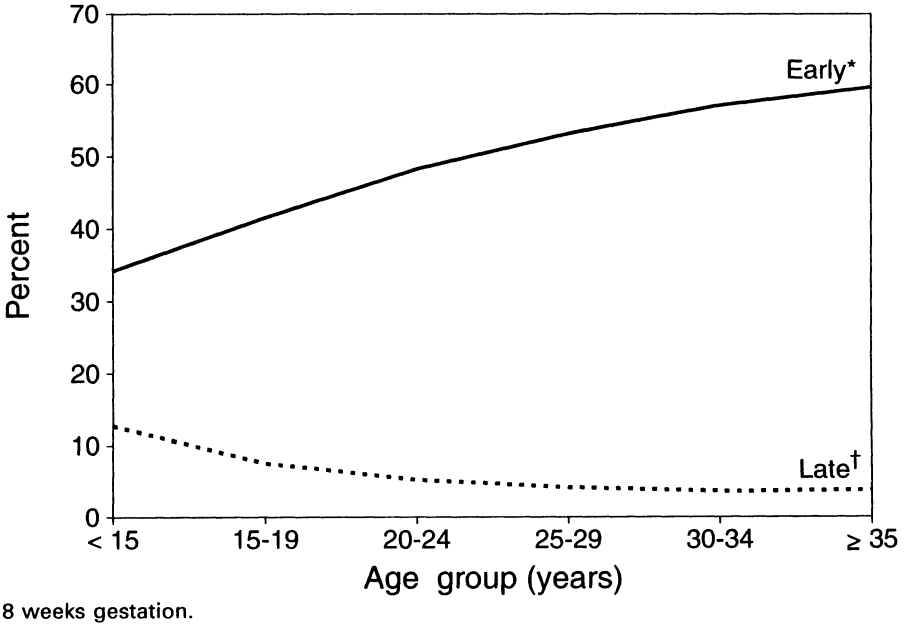
The number of abortion-related deaths and case-fatality rates for the years 1972–1987 have been analyzed by type of abortion (Table 15). Suspected abortion-related deaths for 1988 and 1989 are currently under investigation and are not yet categorized. Twenty-seven cases of suspected abortion-related deaths in 1986 were reported to CDC. Of these, 17 women were categorized as having died from abortion-related causes. Ten deaths were associated with legal induced abortion and five with spontaneous abortion; for two cases, the type of abortion was unknown. After investigation, the remaining 10 deaths were classified as not abortion related. In 1987, 24 suspected abortion-related deaths were reported to CDC. Of these, 20 women died from abortion-related causes. Six deaths were associated with legal induced abortion, 12 with spontaneous abortion, and two with illegal induced abortion; four deaths were classified as not abortion related.

Updated totals for abortion-related deaths for the years 1978–1985 include additional abortion-related deaths identified and classified on the basis of data collected from a recent Retrospective Maternal Mortality Study (*1*). This study identified 11 deaths related to legal induced abortion that had not been previously reported to CDC. As shown below, these additional deaths slightly increased the previously published case-fatality rates (per 100,000 legal induced abortions) (*4*):

Year	Additional deaths	Increase in case-fatality rate
1979	4	1.4 to 1.8
1981	1	0.5 to 0.6
1983	1	0.8 to 0.9
1984	1	0.8 to 0.9
1985	4	0.5 to 0.8
Total	11	

Data from the same study permitted identification and classification of two spontaneous-abortion-related deaths that had not been previously reported to CDC (one in 1979 and one in 1980). In previous reports, a category of "other" was used to describe two deaths. After subsequent review of these two cases (one from 1978 and one from 1984), neither death appeared to be abortion related. Finally, one death occurring in 1980 that had not been previously reported to CDC was identified and classified as "unknown" as to whether it was related to a legal induced, spontaneous, or illegal induced abortion.

FIGURE 4. Percentage of women having early and late abortions, by age group — United States, 1989



* ≤ 8 weeks gestation.
† ≥ 16 weeks gestation.

Since 1980, the case-fatality rate for abortion-related causes has remained at <1 death/100,000 legal induced abortions (Figure 5).

DISCUSSION

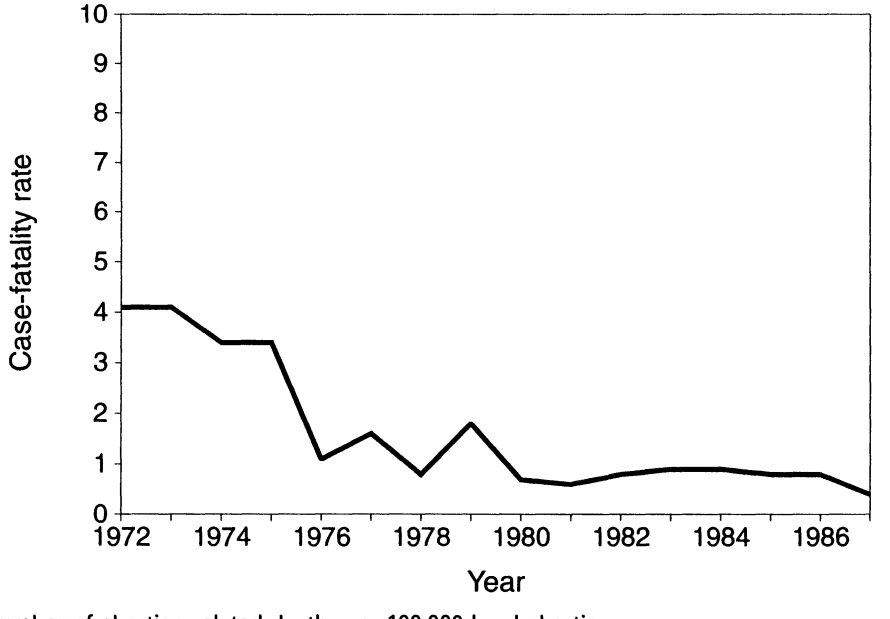
From 1970 to 1982, the reported number of legal abortions in the United States increased every year (Figure 1); the largest percentage increase occurred during 1970–1972. From 1976 to 1982, the annual rate of increase declined continuously, reaching a low of 0.2% for 1981–1982. Since 1980, the number of abortions has remained relatively stable, with only small (<5%) year-to-year fluctuations.

The abortion ratio increased each year from 1970 to 1980 and has also remained relatively stable since 1980 (Figure 1). The abortion rate followed a similar pattern, also increasing each year through 1980, when it reached 25 abortions/1,000 women ages 15–44. Since that time, the rate has remained stable, fluctuating from 23 to 24 abortions/1,000 women ages 15–44 (Figure 1).

The number of legal abortions reported to CDC in 1989 was probably lower than the number actually performed. Totals provided by central health agencies are often lower than those obtained by direct surveys of abortion providers (*5*). For example, in 1988, the total number of abortions reported by CDC was approximately 16% lower than that reported by the Alan Guttmacher Institute, a private organization that obtains information on the number of abortions performed directly from abortion providers* (*6*).

*1988 was the last year for which abortion survey data were reported by the Alan Guttmacher Institute.

FIGURE 5. Case-fatality rates* for legal induced abortion, by year — United States, 1972–1987



* Number of abortion-related deaths per 100,000 legal abortions.

Abortion ratios vary widely by age. Although the abortion ratio was highest for teenagers, the proportion of legal abortions they obtained decreased slightly—from 25% of all legal induced abortions in 1988 to 24% in 1989 (*2*). Since 1980, the abortion ratio has declined for most age groups, particularly for women at the age extremes, i.e., women <15 and ≥35 years of age. Increasing rates of childbearing among teenage women and those ≥35 years of age may account for some of this decline (*7*).

Several other trends were observed—not necessarily related to each other—for women who obtained abortions from 1972 to 1989 (Table 1). During that time period, the proportion of women obtaining an abortion in their state of residence increased from 56% to 91% and has remained stable at approximately 91%–92% since 1984 (Table 1). From 1972 through 1989, the proportion of women obtaining abortions who were unmarried increased steadily, from 70% to almost 80% in 1984; since then, the proportion has remained about the same (*4*). The percentage of abortions among women of racial minorities increased from 23% in 1972 to approximately 36% in 1989, and the number of women having abortions who had had one or no previous live births increased from 68% to 76% during the same period. The percent distribution of abortions by gestational age has been relatively stable since 1978, although slight changes have occurred in the proportion of women obtaining legal abortions either early (≤8 weeks) or late (≥16 weeks) in gestation (Table 1).

The proportion of women having abortions who did so for the first time decreased from 75% in 1974 to 57% in 1989. During this 15-year period, the percentage of women who had previously had one induced abortion increased from 10% in 1974 to 26% in 1988 and remained at that level in 1989. The percentage who had had two previous abortions increased from about 1% in 1974 to approximately 10% in 1985 and has remained at about 9%–10% since that time. The percentage who had had three or more abortions increased from 0.4% in 1974 to approximately 5% in 1985, where it remained in 1989. These increases in the early to mid-1980's probably reflected the increasing number of women at risk of having an abortion and the fact that women who have had an abortion are more likely to have another than are women who have never had one (*8,9*).

From 1972 to 1989, the percentage of abortions performed by curettage increased from 89% to almost 99% (Table 1). Surveillance during the same period showed a sharp decline in the percentage of abortions performed by intrauterine instillation (from 10% to 1%) and by hysterectomy and hysterotomy (from 0.6% to 0.02%).

From 1975 to 1989, the percentage of second-trimester abortions performed by D&E increased from 33% to 92%; the percentage of second-trimester abortions that were performed by intrauterine instillation decreased from 57% to 6%. The increasing use of D&E may have resulted from the improved technology and the lower risk of complications associated with the procedure (*10,11*).

Previous reports have found, as did this study, that age is inversely correlated with the timing of abortion; i.e., younger women tend to obtain abortions later in gestation than older women (*2,12,13*).

Since CDC's surveillance of abortion mortality began in 1972, the annual number of deaths associated with legal induced abortion has decreased 75% (as of 1987) (Table 15). In 1972, 63 women died as a result of induced abortion. Of those deaths, 24 were related to legal abortion and 39 to illegal abortion. In 1987, eight women died as a result of induced abortion; six of those deaths were related to legal abortion and two

to illegal abortion. The case-fatality rate for 1987 (0.4/100,000 legal induced abortions) is approximately one-tenth of what it was in 1972 (4.1/100,000).

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TABLE 1. Characteristics of women who obtained legal abortions — United States, selected years, 1972–1989

Characteristic	Year										
	1972	1973	1976	1978	1980	1982	1984	1986	1987	1988	1989
Reported number of legal abortions	586,760	615,831	988,267	1,157,776	1,297,606	1,303,980	1,333,521	1,328,112	1,353,671	1,371,285	1,396,658
	Percent distribution*										
Residence											
In-state	56.2	74.8	90.0	89.3	92.6	92.9	92.0	92.4	91.7	91.4	91.0
Out-of-state	43.8	25.2	10.0	10.7	7.4	7.1	8.0	7.6	8.3	8.6	9.0
Age(years)											
≤19	32.6	32.7	32.1	30.0	29.2	27.1	26.4	25.3	25.8	25.3	24.2
20–24	32.5	32.0	33.3	35.0	35.5	35.1	35.3	34.0	33.4	32.8	32.6
≥25	34.9	35.3	34.6	34.9	35.3	37.8	38.3	40.7	40.8	41.9	43.2
Race											
White	77.0	72.5	66.6	67.0	69.9	68.5	67.4	67.0	66.4	64.4	64.2
Black and other	23.0	27.5	33.4	33.0	30.1	31.5	32.6	33.0	33.6	35.6	35.8
Marital status											
Married	29.7	27.4	24.6	26.4	23.1	22.0	20.5	20.2	20.8	20.3	20.1
Unmarried	70.3	72.6	75.4	73.6	76.9	78.0	79.5	79.8	79.2	79.7	79.9
Number of live births†											
0	49.4	48.6	47.7	56.6	58.4	57.8	57.0	55.1	53.6	52.4	52.2
1	18.2	18.8	20.7	19.2	19.4	20.3	20.9	22.1	22.8	23.4	23.6
2	13.3	14.2	15.4	14.1	13.7	13.9	14.4	14.9	15.5	16.0	15.9
3	8.7	8.7	8.3	5.9	5.3	5.1	5.1	5.3	5.5	5.6	5.7
≥4	10.4	9.7	7.9	4.2	3.2	2.9	2.6	2.6	2.6	2.6	2.6
Type of procedure											
Curettage	88.6	88.4	92.8	94.6	95.5	96.4	96.8	97.0	97.2	98.5	98.8
Suction	65.2	74.9	82.6	90.2	89.8	90.6	93.1	94.5	93.3	95.0	97.1
Sharp	23.4	13.5	10.2	4.4	5.7	5.8	3.7	2.5	3.7	3.5	1.7
Intrauterine instillation	10.4	10.4	6.0	3.9	3.1	2.5	1.9	1.4	1.3	1.1	0.9
Other§	1.0	1.2	1.2	1.5	1.4	1.1	1.3	1.6	1.5	0.4	0.3

TABLE 1. Characteristics of women who obtained legal abortions — United States, selected years, 1972–1989 — Continued

Characteristic	Year										
	1972	1973	1976	1978	1980	1982	1984	1986	1987	1988	1989
Weeks of gestation											
≤ 8	34.0	36.1	47.0	52.2	51.7	50.6	50.5	51.0	50.4	48.7	49.8
9–10	30.7	29.4	28.0	26.9	26.2	26.7	26.4	25.8	26.0	26.4	25.8
11–12	17.5	17.9	14.4	12.3	12.2	12.4	12.6	12.2	12.4	12.7	12.6
13–15	8.4	6.9	4.5	4.0	5.2	5.3	5.8	6.1	6.2	6.6	6.6
16–20	8.2	8.0	5.1	3.7	3.9	3.9	3.9	4.1	4.2	4.5	4.2
≥21	1.3	1.7	0.9	0.9	0.9	1.1	0.8	0.8	0.8	1.1	1.0

*Excludes unknowns. Since the number of states that reported each characteristic varies from year to year, temporal comparisons should be made with caution. Percent distributions are based on data from all areas reporting a given characteristic, and (as is not the cases with the other tables) unknown values are excluded unless otherwise noted.

†For years 1972–1977, data indicate number of living children.

§Includes hysterotomy and hysterectomy.

TABLE 2. Number, ratio, and rate of reported legal abortions and source of reporting — United States, 1970–1989

Year	Total number of legal abortions	Ratio*	Rate†	Number of areas reporting	
				Central health agency§	Hospital/ facilities¶
1970	193,491	52	5	18	7
1971	485,816	137	11	19	7
1972	586,760	180	13	21	8
1973	615,831	196	14	26	26
1974	763,476	242	17	37	15
1975	854,853	272	18	39	13
1976	988,267	312	21	41	11
1977	1,079,430	325	22	46	6
1978	1,157,776	347	23	48	4
1979	1,251,921	358	24	47	5
1980	1,297,606	359	25	47	5
1981	1,300,760	358	24	46	6
1982	1,303,980	354	24	46	6
1983	1,268,987	349	23	46	6
1984	1,333,521	364	24	44	8
1985	1,328,570	354	24	44	8
1986	1,328,112	354	23	43	9
1987	1,353,671	356	24	45	7
1988	1,371,285	352	24	45	7
1989	1,396,658	346	24	45	7
Total	**21,260,771**				

* Number of abortions per 1,000 live births.
† Number of abortions per 1,000 women 15–44 years of age.
§ Abortion data reported from central health agency.
¶ Abortion data reported from hospitals and/or other medical facilities in state.

TABLE 3. Reported number, ratio, and rate of legal abortions and percentage of abortions obtained by out-of-state residents, by state of occurrence — United States, 1989

State	Number of abortions*	Ratio†	Rate§	Percentage of abortions obtained by out-of-state residents¶
Alabama	14,311**	226	15	—
Alaska	1,527**	131	10	—
Arizona	12,688	189	15	7.3
Arkansas	4,942	138	10	2.5
California	354,692††	623	50	—
Colorado	12,445	236	15	8.3
Connecticut	19,731	394	26	—
Delaware	5,306	497	33	—
District of Columbia	19,535	§§	¶¶	52.3
Florida	62,626	325	24	—
Georgia	35,857	325	23	8.6
Hawaii	5,316	275	21	0.5
Idaho	1,559	98	7	8.3
Illinois	66,722	351	25	—
Indiana	12,704	153	10	3.7
Iowa	6,358**	163	10	—
Kansas	7,069	183	13	46.3
Kentucky	10,679**	201	13	30.2
Louisiana	14,210	196	14	—
Maine	4,685	268	17	16.1
Maryland	22,523	288	19	6.9
Massachusetts	39,288	430	27	5.9
Michigan	36,569	247	17	3.8
Minnesota	17,398	258	17	10.7
Mississippi	5,490	128	10	16.9
Missouri	17,495	225	15	12.0
Montana	3,245	278	18	20.3
Nebraska	5,871	243	16	19.8
Nevada	7,168	359	26	11.5
New Hampshire	3,886**	218	15	—
New Jersey	40,329	332	23	3.4
New Mexico	5,350	196	15	4.2
New York	150,001	525	35	—
(City)	95,299***	745	—	7.8
(State)	54,702	347	—	3.6
North Carolina	36,799	360	23	8.1
North Dakota	1,761	184	12	37.3
Ohio	36,291	222	14	7.4
Oklahoma	11,594**	245	16	—
Oregon	13,928	338	21	10.0
Pennsylvania	51,341	305	19	6.0
Rhode Island	7,704	522†††	34	21.6
South Carolina	13,741	240	16	5.7
South Dakota	900	81	6	17.2
Tennessee	21,050	288	18	18.6
Texas	81,110	264	20	4.7
Utah	4,950	139	13	15.0
Vermont	3,313	391	24	30.4
Virginia	33,186	344	22	6.0
Washington	30,452	404	27	5.7

TABLE 3. Reported number, ratio, and rate of legal abortions and percentage of abortions obtained by out-of-state residents, by state of occurrence — United States, 1989 — Continued

State	Number of abortions*	Ratio†	Rate§	Percentage of abortions obtained by out-of-state residents¶
West Virginia	3,036	138	8	—
Wisconsin	17,575	244	16	6.4
Wyoming	352	51	3	10.8
Total	**1,396,658**	**346**	**24**	**9.0**

*Abortion data from central health agency unless otherwise noted.
†Abortions per 1,000 live births (live-birth data from central health agency unless otherwise specified).
§Abortions per 1,000 women ages 15–44 (number of women ages 15–44 from Bureau of the Census, Current Population Survey, March 1989, Tape Technical Documentation, Washington, D.C.).
¶Based on number of abortions for which residence status of women was known.
**Reported from hospitals and/or other medical facilities in state.
††CDC estimate.
§§>1,000 abortions per 1,000 live births.
¶¶>1,000 abortions per 1,000 women ages 15–44.
***Reported from New York City Health Department.
†††Live births reported from NCHS, Monthly Vital Statistics, Part I, Natality Table 102w.
— Not reported.

TABLE 4. Reported legal abortions, by age group and state of occurrence — selected states,* United States, 1989

	Age groups (years)																	
	<15		15–19		20–24		25–29		30–34		35–39		≥40		Unknown		Total	
State	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	75	0.6	2,696	21.2	3,939	31.0	2,792	22.0	1,706	13.4	739	5.8	173	1.4	568	4.5	12,688	100.0
Arkansas	49	1.0	1,412	28.6	1,627	32.9	924	18.7	550	11.1	286	5.8	69	1.4	25	0.5	4,942	100.0
Colorado	84	0.7	3,090	24.8	3,759	30.2	2,653	21.3	1,616	13.0	912	7.3	237	1.9	94	0.8	12,445	100.0
Dist. of Col.	247	1.3	3,991	20.4	5,633	28.8	4,854	24.8	2,979	15.2	1,070	5.5	255	1.3	506	2.6	19,535	100.0
Georgia	436	1.2	8,494	23.7	11,488	32.0	8,039	22.4	4,623	12.9	2,230	6.2	543	1.5	4	0.0	35,857	100.0
Hawaii	54	1.0	1,040	19.6	1,623	30.5	1,276	24.0	752	14.1	457	8.6	109	2.1	5	0.1	5,316	100.0
Idaho	4	0.3	392	25.1	461	29.6	328	21.0	205	13.1	137	8.8	31	2.0	1	0.1	1,559	100.0
Indiana	117	0.9	3,124	24.6	4,253	33.5	2,637	20.8	1,487	11.7	764	6.0	208	1.6	114	0.9	12,704	100.0
Kansas	78	1.1	2,178	30.8	2,205	31.2	1,311	18.5	761	10.8	426	6.0	110	1.6	0	0.0	7,069	100.0
Kentucky	127	1.2	2,939	27.5	3,551	33.3	2,140	20.0	1,128	10.6	558	5.2	144	1.3	92	0.9	10,679	100.0
Louisiana	171	1.2	3,236	22.8	4,446	31.3	2,929	20.6	1,864	13.1	1,048	7.4	255	1.8	261	1.8	14,210	100.0
Maine	34	0.7	1,253	26.7	1,511	32.3	936	20.0	555	11.8	263	5.6	87	1.9	46	1.0	4,685	100.0
Maryland	209	0.9	5,166	22.9	7,558	33.6	5,177	23.0	2,843	12.6	1,257	5.6	313	1.4	0	0.0	22,523	100.0
Massachusetts	171	0.4	8,937	22.7	12,203	31.1	8,908	22.7	5,179	13.2	2,769	7.0	871	2.2	250	0.6	39,288	100.0
Michigan	311	0.9	9,808	26.8	11,576	31.7	7,520	20.6	4,555	12.5	2,188	6.0	547	1.5	64	0.2	36,569	100.0
Minnesota	106	0.6	4,184	24.0	5,937	34.1	3,746	21.5	2,007	11.5	1,019	5.9	291	1.7	108	0.6	17,398	100.0
Mississippi	98	1.8	1,500	27.3	1,712	31.2	1,068	19.5	657	12.0	352	6.4	89	1.6	14	0.3	5,490	100.0
Missouri	188	1.1	3,952	22.6	5,857	33.5	3,833	21.9	2,235	12.8	1,110	6.3	314	1.8	6	0.0	17,495	100.0
Montana	34	1.0	926	28.5	911	28.1	637	19.6	419	12.9	224	6.9	77	2.4	17	0.5	3,245	100.0
Nebraska	47	0.8	1,652	28.1	1,807	30.8	1,206	20.5	677	11.5	354	6.0	116	2.0	12	0.2	5,871	100.0
Nevada	47	0.7	1,431	20.0	2,106	29.4	1,765	24.6	1,111	15.5	527	7.4	143	2.0	38	0.5	7,168	100.0
New Jersey	293	0.7	9,076	22.5	13,457	33.4	9,110	22.6	5,123	12.7	2,490	6.2	740	1.8	40	0.1	40,329	100.0
New Mexico	39	0.7	1,340	25.0	1,551	29.0	1,138	21.3	728	13.6	425	7.9	110	2.1	19	0.4	5,350	100.0
New York	1,102	0.7	30,521	20.3	47,959	32.0	34,132	22.8	20,385	13.6	9,980	6.7	2,972	2.0	2,950	2.0	150,001	100.0
(City)	802	0.8	17,254	18.1	29,197	30.6	23,027	24.2	14,161	14.9	6,808	7.1	1,988	2.1	2,062	2.2	95,299	100.0
(State)	300	0.5	13,267	24.3	18,762	34.3	11,105	20.3	6,224	11.4	3,172	5.8	984	1.8	888	1.6	54,702	100.0
N.Carolina	434	1.2	9,982	27.1	12,331	33.5	7,220	19.6	4,118	11.2	1,810	4.9	473	1.3	431	1.2	36,799	100.0
N.Dakota	10	0.6	502	28.5	617	35.0	310	17.6	193	11.0	97	5.5	32	1.8	0	0.0	1,761	100.0
Ohio	188	0.5	7,752	21.4	11,488	31.7	7,139	19.7	4,079	11.2	2,143	5.9	655	1.8	2,847	7.8	36,291	100.0
Oregon	73	0.5	3,498	25.1	4,314	31.0	2,917	20.9	1,708	12.3	953	6.8	225	1.6	240	1.7	13,928	100.0
Pennsylvania	450	0.9	12,492	24.3	17,044	33.2	10,804	21.0	6,429	12.5	3,213	6.3	907	1.8	2	0.0	51,341	100.0
Rhode Island	30	0.4	1,677	21.8	2,679	34.8	1,633	21.2	997	12.9	542	7.0	146	1.9	0	0.0	7,704	100.0
S. Carolina	128	0.9	3,611	26.3	4,589	33.4	2,908	21.2	1,598	11.6	741	5.4	165	1.2	1	0.0	13,741	100.0
S. Dakota	3	0.3	274	30.4	263	29.2	184	20.4	109	12.1	52	5.8	15	1.7	0	0.0	900	100.0
Tennessee	236	1.1	5,637	26.8	6,819	32.4	4,327	20.6	2,441	11.6	1,235	5.9	334	1.6	21	0.1	21,050	100.0
Texas	410	0.5	16,626	20.5	26,800	33.0	18,908	23.3	11,107	13.7	5,601	6.9	1,647	2.0	11	0.0	81,110	100.0

TABLE 4. Reported legal abortions, by age group and state of occurrence — selected states,* United States, 1989 — Continued

	Age groups (years)																	
	<15		15–19		20–24		25–29		30–34		35–39		≥40		Unknown		Total	
State	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Utah	33	0.7	1,183	23.9	1,599	32.3	1,087	22.0	668	13.5	283	5.7	74	1.5	23	0.5	4,950	100.0
Vermont	31	0.9	786	23.7	1,073	32.4	620	18.7	414	12.5	240	7.2	72	2.2	77	2.3	3,313	100.0
Virginia	283	0.9	7,682	23.1	10,960	33.0	7,450	22.4	4,076	12.3	2,075	6.3	581	1.8	79	0.2	33,186	100.0
Washington	181	0.6	7,285	23.9	9,631	31.6	6,783	22.3	3,991	13.1	1,972	6.5	585	1.9	24	0.1	30,452	100.0
Wisconsin	132	0.8	4,697	26.7	5,954	33.9	3,523	20.0	2,026	11.5	969	5.5	266	1.5	8	0.0	17,575	100.0
Wyoming	6	1.7	90	25.6	103	29.3	70	19.9	45	12.8	31	8.8	7	2.0	0	0.0	352	100.0
Total	**6,749**	**0.8**	**196,112**	**23.2**	**273,394**	**32.3**	**184,942**	**21.8**	**108,144**	**12.8**	**53,542**	**6.3**	**14,988**	**1.8**	**8,998**	**1.1**	**846,869**	**100.0**
Abortion ratio†	**886**		**560**		**366**		**211**		**187**		**271**		**496**				**301**	

*All 39 states for which data are available, the District of Columbia, and New York City.

†Calculated as the number of legal abortions obtained by women in a given age group per 1,000 live births to women in the same age group for these states. For each state, women of unknown age are distributed according to the known age distribution for that state. Excludes states reporting age unknown for >15% of women having abortions.

TABLE 5. Reported legal abortions obtained by teenagers, by age — selected states,* United States, 1989

State	Age (years)													
	<15		15		16		17		18		19		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	75	2.7	160	5.8	308	11.1	422	15.2	886	32.0	920	33.2	2,771	100.0
Arkansas	49	3.4	88	6.0	160	11.1	249	17.0	486	33.3	429	29.4	1,461	100.0
Colorado	84	2.6	175	5.5	404	12.7	667	21.0	917	28.9	927	29.2	3,174	100.0
Georgia	436	4.9	625	7.0	1,155	12.9	1,679	18.8	2,458	27.5	2,577	28.9	8,930	100.0
Hawaii	54	4.9	82	7.5	136	12.4	209	19.1	275	25.1	338	30.9	1,094	100.0
Idaho	4	1.0	23	5.8	46	11.6	59	14.9	151	38.1	113	28.5	396	100.0
Indiana	117	3.6	211	6.5	345	10.6	425	13.1	1,038	32.0	1,105	34.1	3,241	100.0
Kansas	78	3.5	151	6.7	357	15.8	453	20.1	621	27.5	596	26.4	2,256	100.0
Kentucky	127	4.1	214	7.0	393	12.8	535	17.4	936	30.5	861	28.1	3,066	100.0
Louisiana	171	5.0	275	8.1	359	10.5	459	13.5	1,076	31.6	1,067	31.3	3,047	100.0
Maine	34	2.6	80	6.2	166	12.9	305	23.7	356	27.7	346	26.9	1,287	100.0
Maryland	209	3.9	337	6.3	700	13.0	1,012	18.8	1,540	28.7	1,577	29.3	5,375	100.0
Massachusetts	171	1.9	423	4.6	1,031	11.3	1,573	17.3	2,770	30.4	3,140	34.5	9,108	100.0
Michigan	311	3.1	637	6.3	1,338	13.2	2,045	20.2	2,925	28.9	2,863	28.3	10,119	100.0
Minnesota	106	2.5	235	5.5	502	11.7	791	18.4	1,278	29.8	1,378	32.1	4,290	100.0
Mississippi	98	6.1	127	7.9	242	15.1	286	17.9	437	27.3	408	25.5	1,598	100.0
Missouri	188	4.5	265	6.4	456	11.0	526	12.7	1,321	31.9	1,384	33.4	4,140	100.0
Montana	34	3.5	62	6.5	120	12.5	209	21.8	243	25.3	292	30.4	960	100.0
Nebraska	47	2.8	90	5.3	190	11.2	357	21.0	505	29.7	510	30.0	1,699	100.0
Nevada	47	3.2	72	4.9	184	12.4	300	20.3	434	29.4	441	29.8	1,478	100.0
New Mexico	39	2.8	85	6.2	183	13.3	298	21.6	411	29.8	363	26.3	1,379	100.0
New York	1,102	3.5	1,948	6.2	3,756	11.9	6,001	19.0	8,999	28.5	9,817	31.0	31,623	100.0
(City)	802	4.4	1,277	7.1	2,267	12.6	3,370	18.7	4,865	26.9	5,475	30.3	18,056	100.0
(State)	300	2.2	671	4.9	1,489	11.0	2,631	19.4	4,134	30.5	4,342	32.0	13,567	100.0
North Carolina	434	4.2	638	6.1	1,294	12.4	1,983	19.0	3,084	29.6	2,983	28.6	10,416	100.0
North Dakota	10	2.0	19	3.7	42	8.2	65	12.7	190	37.1	186	36.3	512	100.0
Ohio	188	2.4	358	4.5	830	10.5	1,502	18.9	2,233	28.1	2,829	35.6	7,940	100.0
Oregon	73	2.0	233	6.5	436	12.2	693	19.4	1,064	29.8	1,072	30.0	3,571	100.0
Pennsylvania	450	3.5	848	6.6	1,547	12.0	2,390	18.5	3,783	29.2	3,924	30.3	12,942	100.0
Rhode Island	30	1.8	71	4.2	140	8.2	224	13.1	607	35.6	635	37.2	1,707	100.0
South Carolina	128	3.4	196	5.2	496	13.3	754	20.2	1,049	28.1	1,116	29.8	3,739	100.0
South Dakota	3	1.1	18	6.5	39	14.1	61	22.0	75	27.1	81	29.2	277	100.0
Tennessee	236	4.0	401	6.8	784	13.3	1,049	17.9	1,771	30.2	1,632	27.8	5,873	100.0
Texas	410	2.4	855	5.0	1,855	10.9	3,024	17.8	4,813	28.3	6,079	35.7	17,036	100.0
Utah	33	2.7	92	7.6	137	11.3	189	15.5	391	32.2	374	30.8	1,216	100.0
Vermont	31	3.8	43	5.3	102	12.5	155	19.0	231	28.3	255	31.2	817	100.0

TABLE 5. Reported legal abortions obtained by teenagers, by age, selected states,* United States, 1989 — Continued

State	Age (years) <15 No.	<15 %	15 No.	15 %	16 No.	16 %	17 No.	17 %	18 No.	18 %	19 No.	19 %	Total No.	Total %
Virginia	283	3.6	409	5.1	956	12.0	1,510	19.0	2,440	30.6	2,367	29.7	7,965	100.0
Washington	181	2.4	414	5.5	909	12.2	1,356	18.2	2,216	29.7	2,390	32.0	7,466	100.0
Wyoming	6	6.3	5	5.2	7	7.3	18	18.8	39	40.6	21	21.9	96	100.0
Total	**6,077**	**3.3**	**10,965**	**5.9**	**22,105**	**12.0**	**33,833**	**18.3**	**54,049**	**29.3**	**57,396**	**31.1**	**184,425**	**100.0**
Abortion ratio†	**853**		**648**		**602**		**534**		**571**		**482**		**546**	

*All 37 states for which data are available and New York City.
† Calculated as the number of legal abortions obtained by women of a given age per 1,000 live births to women of the same age for these states.

TABLE 6. Reported legal abortions, by weeks of gestation and state of occurrence — selected states,* United States, 1989

State	Weeks of gestation															
	≤ 8		9–10		11–12		13–15		16–20		≥21		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona†	6,142	48.4	3,613	28.5	1,709	13.5	780	6.1	139	1.1	10	0.1	295	2.3	12,688	100.0
Arkansas	2,782	56.3	1,380	27.9	481	9.7	183	3.7	78	1.6	16	0.3	22	0.4	4,942	100.0
Colorado	4,314	34.7	4,405	35.4	2,170	17.4	903	7.3	476	3.8	135	1.1	42	0.3	12,445	100.0
Georgia	12,785	35.7	9,590	26.7	5,833	16.3	3,143	8.8	1,644	4.6	662	1.8	2,200	6.1	35,857	100.0
Hawaii	2,636	49.6	1,306	24.6	600	11.3	330	6.2	396	7.4	35	0.7	13	0.2	5,316	100.0
Idaho	681	43.7	560	35.9	268	17.2	19	1.2	9	0.6	0	0.0	22	1.4	1,559	100.0
Indiana	8,886	69.9	2,665	21.0	782	6.2	66	0.5	39	0.3	0	0.0	266	2.1	12,704	100.0
Kansas	2,452	34.7	1,952	27.6	1,305	18.5	511	7.2	507	7.2	319	4.5	23	0.3	7,069	100.0
Kentucky	4,802	45.0	2,015	18.9	1,230	11.5	995	9.3	1,188	11.1	354	3.3	95	0.9	10,679	100.0
Louisiana	6,580	46.3	3,997	28.1	1,695	11.9	893	6.3	743	5.2	144	1.0	158	1.1	14,210	100.0
Maine	2,275	48.6	1,309	27.9	515	11.0	437	9.3	97	2.1	1	0.0	51	1.1	4,685	100.0
Maryland†	11,192	49.7	6,149	27.3	3,030	13.5	1,343	6.0	751	3.3	20	0.1	38	0.2	22,523	100.0
Michigan	17,760	48.6	9,295	25.4	4,866	13.3	2,553	7.0	1,041	2.8	136	0.4	918	2.5	36,569	100.0
Minnesota	8,828	50.7	4,144	23.8	2,273	13.1	1,122	6.4	847	4.9	121	0.7	63	0.4	17,398	100.0
Mississippi	2,724	49.6	1,428	26.0	689	12.6	371	6.8	103	1.9	16	0.3	159	2.9	5,490	100.0
Missouri	7,378	42.2	5,437	31.1	2,733	15.6	1,298	7.4	560	3.2	85	0.5	4	0.0	17,495	100.0
Montana†	1,946	60.0	633	19.5	370	11.4	164	5.1	124	3.8	1	0.0	7	0.2	3,245	100.0
Nevada	4,577	63.9	1,364	19.0	647	9.0	306	4.3	212	3.0	2	0.0	60	0.8	7,168	100.0
New Jersey	19,966	49.5	9,468	23.5	3,960	9.8	3,666	9.1	2,991	7.4	278	0.7	0	0.0	40,329	100.0
New Mexico	2,972	55.6	1,124	21.0	509	9.5	327	6.1	293	5.5	23	0.4	102	1.9	5,350	100.0
New York	71,069	47.4	36,518	24.3	17,968	12.0	10,396	6.9	7,786	5.2	2,672	1.8	3,592	2.4	150,001	100.0
(City)	43,293	45.4	22,641	23.8	11,468	12.0	7,225	7.6	6,267	6.6	2,428	2.5	1,977	2.1	95,299	100.0
(State)	27,776	50.8	13,877	25.4	6,500	11.9	3,171	5.8	1,519	2.8	244	0.4	1,615	3.0	54,702	100.0
N. Carolina	16,925	46.0	9,168	24.9	5,110	13.9	2,884	7.8	1,132	3.1	85	0.2	1,495	4.1	36,799	100.0
N. Dakota	990	56.2	415	23.6	234	13.3	119	6.8	2	0.1	0	0.0	1	0.1	1,761	100.0
Oregon	6,038	43.4	4,360	31.3	1,614	11.6	781	5.6	602	4.3	222	1.6	311	2.2	13,928	100.0
Pennsylvania	25,605	49.9	13,658	26.6	6,660	13.0	3,273	6.4	1,674	3.3	373	0.7	98	0.2	51,341	100.0
Rhode Island	4,192	54.4	2,168	28.1	700	9.1	446	5.8	187	2.4	6	0.1	5	0.1	7,704	100.0
S. Carolina	6,501	47.3	4,161	30.3	2,336	17.0	493	3.6	87	0.6	35	0.3	128	0.9	13,741	100.0
S. Dakota	550	61.1	271	30.1	75	8.3	4	0.4	0	0.0	0	0.0	0	0.0	900	100.0
Tennessee	8,274	39.3	6,890	32.7	3,729	17.7	1,442	6.9	179	0.9	45	0.2	491	2.3	21,050	100.0
Texas	40,833	50.3	19,190	23.7	9,996	12.3	5,555	6.8	4,304	5.3	1,216	1.5	16	0.0	81,110	100.0
Utah	3,323	67.1	805	16.3	382	7.7	225	4.5	164	3.3	6	0.1	45	0.9	4,950	100.0
Vermont	1,886	56.9	900	27.2	342	10.3	143	4.3	29	0.9	7	0.2	6	0.2	3,313	100.0
Virginia†	20,921	63.0	7,652	23.1	3,083	9.3	588	1.8	654	2.0	114	0.3	174	0.5	33,186	100.0

TABLE 6. Reported legal abortions, by weeks of gestation and state of occurrence — selected states,* United States, 1989 — Continued

State	≤ 8		9–10		11–12		13–15		16–20		≥21		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Washington†	17,964	59.0	7,320	24.0	2,502	8.2	1,241	4.1	1,084	3.6	341	1.1	0	0.0	30,452	100.0
Wisconsin	8,979	51.1	4,509	25.7	1,925	11.0	1,207	6.9	747	4.3	206	1.2	2	0.0	17,575	100.0
Wyoming†	208	59.1	122	34.7	22	6.3	0	0.0	0	0.0	0	0.0	0	0.0	352	100.0
Total	**365,936**	**49.1**	**189,941**	**25.5**	**92,343**	**12.4**	**48,207**	**6.5**	**30,869**	**4.1**	**7,686**	**1.0**	**10,902**	**1.5**	**745,884**	**100.0**

*All 36 states for which data are available and New York City.
†Weeks of gestation are based on physician's estimate.

TABLE 7. Reported legal abortions, by type of procedure and state of occurrence — selected states,* United States, 1989

State	Procedure																	
	Suction curettage		Sharp curettage		All curettage		Intrauterine saline instillation		Prostaglandin instillation		Hysterotomy/ hysterectomy		Other†		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	12,023	94.8	6	0.0	12,029	94.8	0	0.0	0	0.0	0	0.0	0	0.0	659	5.2	12,688	100.0
Arkansas	4,818§	97.5	9	0.2	4,827	97.7	2	0.0	7	0.1	1	0.0	17	0.3	88	1.8	4,942	100.0
Colorado	12,044§	96.8	52	0.4	12,096	97.2	2	0.0	74	0.6	6	0.0	267	2.1	0	0.0	12,445	100.0
Dist. of Col.	19,044	97.5	13	0.1	19,057	97.6	34	0.2	0	0.0	0	0.0	3	0.0	441	2.3	19,535	100.0
Georgia	30,717	85.7	3,937	11.0	34,654	96.6	568	1.6	447	1.2	21	0.1	163	0.5	4	0.0	35,857	100.0
Hawaii	5,254	98.8	3	0.1	5,257	98.9	3	0.1	26	0.5	1	0.0	26	0.5	3	0.1	5,316	100.0
Idaho	1,550	99.4	2	0.1	1,552	99.6	2	0.1	1	0.1	0	0.0	4	0.3	0	0.0	1,559	100.0
Indiana	12,275	96.6	5	0.0	12,280	96.7	0	0.0	0	0.0	1	0.0	305	2.4	118	0.9	12,704	100.0
Kansas	7,048§	99.7	6	0.1	7,054	99.8	2	0.0	6	0.1	2	0.0	4	0.1	1	0.0	7,069	100.0
Kentucky	10,462	98.0	116	1.1	10,578	99.1	1	0.0	0	0.0	0	0.0	7	0.1	93	0.9	10,679	100.0
Louisiana	12,289	86.5	15	0.1	12,304	86.6	2	0.0	0	0.0	0	0.0	76	0.5	1,828	12.9	14,210	100.0
Maine	4,654§	99.3	11	0.2	4,665	99.6	2	0.0	0	0.0	0	0.0	18	0.4	0	0.0	4,685	100.0
Maryland	21,766	96.6	124	0.6	21,890	97.2	89	0.4	361	1.6	7	0.0	176	0.8	0	0.0	22,523	100.0
Massachusetts	38,152	97.1	136	0.3	38,288	97.5	261	0.7	559	1.4	0	0.0	180	0.5	0	0.0	39,288	100.0
Michigan	36,138	98.8	314	0.9	36,452	99.7	97	0.3	18	0.0	2	0.0	0	0.0	0	0.0	36,569	100.0
Minnesota	17,388§	99.9	3	0.0	17,391	100.0	0	0.0	3	0.0	1	0.0	3	0.0	0	0.0	17,398	100.0
Mississippi	5,466§	99.6	2	0.0	5,468	99.6	2	0.0	17	0.3	1	0.0	2	0.0	0	0.0	5,490	100.0
Missouri	17,335§	99.1	15	0.1	17,350	99.2	1	0.0	45	0.3	0	0.0	2	0.0	97	0.6	17,495	100.0
Montana	3,244§	100.0	0	0.0	3,244	100.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	3,245	100.0
Nebraska	5,862	99.7	6	0.1	5,868	99.8	0	0.0	0	0.0	0	0.0	1	0.0	8	0.1	5,877	100.0
Nevada	7,026§	98.0	23	0.3	7,049	98.3	0	0.0	0	0.0	0	0.0	0	0.0	119	1.7	7,168	100.0
New Jersey	33,931	84.1	5,944	14.7	39,875	98.9	345	0.9	52	0.1	14	0.0	15	0.0	28	0.1	40,329	100.0
New Mexico	5,157	96.4	63	1.2	5,220	97.6	106	2.0	0	0.0	1	0.0	0	0.0	23	0.4	5,350	100.0
New York	139,535	93.0	1,770	1.2	141,305	94.2	1,880	1.3	388	0.3	9	0.0	311	0.2	6,108	4.1	150,001	100.0
(City)	86,334§	90.6	1,415	1.5	87,749	92.1	1,525	1.6	200	0.2	4	0.0	27	0.0	5,794	6.1	95,299	100.0
(State)	53,201§	97.3	355	0.6	53,556	97.9	355	0.6	188	0.3	5	0.0	284	0.5	314	0.6	54,702	100.0
N. Carolina	35,552	96.6	91	0.2	35,643	96.9	421	1.1	283	0.8	12	0.0	440	1.2	0	0.0	36,799	100.0
N. Dakota	1,757	99.8	1	0.1	1,758	99.8	0	0.0	2	0.1	0	0.0	1	0.1	0	0.0	1,761	100.0
Oregon	13,725§	98.5	20	0.1	13,745	98.7	0	0.0	12	0.1	1	0.0	3	0.0	167	1.2	13,928	100.0
Pennsylvania	51,076§	99.5	39	0.1	51,115	99.6	60	0.1	35	0.1	4	0.0	127	0.2	0	0.0	51,341	100.0
Rhode Island	7,679§	99.7	8	0.1	7,687	99.8	1	0.0	10	0.1	0	0.0	4	0.1	2	0.0	7,704	100.0
S. Carolina	13,639	99.3	17	0.1	13,656	99.4	18	0.1	44	0.3	0	0.0	20	0.1	3	0.0	13,741	100.0
S. Dakota	900	100.0	0	0.0	900	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	900	100.0
Tennessee	20,928	99.4	7	0.0	20,935	99.5	8	0.0	39	0.2	4	0.0	15	0.1	49	0.2	21,050	100.0
Texas	80,836§	99.7	—	—	80,836	99.7	238	0.3	—	—	36	0.0	0	0.0	0	0.0	81,110	100.0
Utah	4,557§	92.1	365	7.4	4,922	99.4	0	0.0	0	0.0	0	0.0	11	0.2	17	0.3	4,950	100.0

TABLE 7. Reported legal abortions, by type of procedure and state of occurrence — selected states,* United States, 1989 — Continued

State	Procedure																	
	Suction curettage		Sharp curettage		All curettage		Intrauterine saline instillation		Prostaglandin instillation		Hysterotomy/ hysterectomy		Other†		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Vermont	3,274	98.8	4	0.1	3,278	98.9	1	0.0	1	0.0	0	0.0	27	0.8	6	0.2	3,313	100.0
Virginia	32,467§	97.8	46	0.1	32,513	98.0	37	0.1	46	0.1	10	0.0	98	0.3	482	1.5	33,186	100.0
Washington	30,322§	99.6	15	0.0	30,337	99.6	10	0.0	76	0.2	4	0.0	13	0.0	12	0.0	30,452	100.0
Wyoming	345	98.0	0	0.0	345	98.0	0	0.0	0	0.0	0	0.0	0	0.0	7	2.0	352	100.0
Total	**760,235**	**95.9**	**13,188**	**1.7**	**773,423**	**97.6**	**4,193**	**0.5**	**2,552**	**0.3**	**138**	**0.0**	**2,339**	**0.3**	**10,364**	**1.3**	**793,009**	**100.0**

* All 37 states for which data are available, the District of Columbia, and New York City.
† Includes instillation procedures not reported as a specific category and procedures reported as "other."
§ Includes dilatation and evacuation procedures.
— Not reported.

TABLE 8. Reported legal abortions, by race and state of occurrence — selected states,* United States, 1989

State	White†		Black		Other		Black/other		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	10,684	84.2	596	4.7	511	4.0	1,107	8.7	897	7.1	12,688	100.0
Arkansas	3,493	70.7	1,324	26.8	80	1.6	1,404	28.4	45	0.9	4,942	100.0
Dist. of Col.	4,544	23.3	11,714	60.0	2,836	14.5	14,550	74.5	441	2.3	19,535	100.0
Georgia	19,311	53.9	15,259	42.6	1,287	3.6	16,546	46.1	0	0.0	35,857	100.0
Hawaii	1,594	30.0	102	1.9	3,067	57.7	3,169	59.6	553	10.4	5,316	100.0
Idaho	1,486	95.3	13	0.8	46	3.0	59	3.8	14	0.9	1,559	100.0
Indiana	9,783	77.0	2,470	19.4	136	1.1	2,606	20.5	315	2.5	12,704	100.0
Kansas	5,898	83.4	961	13.6	87	1.2	1,048	14.8	123	1.7	7,069	100.0
Kentucky	8,543	80.0	1,849	17.3	177	1.7	2,026	19.0	110	1.0	10,679	100.0
Louisiana	7,506	52.8	6,062§	42.7	—	—	6,062	42.7	642	4.5	14,210	100.0
Maine	4,493	95.9	52	1.1	140	3.0	192	4.1	0	0.0	4,685	100.0
Maryland	11,005	48.9	10,292	45.7	811	3.6	11,103	49.3	415	1.8	22,523	100.0
Minnesota	14,949	85.9	1,080	6.2	940	5.4	2,020	11.6	429	2.5	17,398	100.0
Mississippi	2,674	48.7	2,758	50.2	44	0.8	2,802	51.0	14	0.3	5,490	100.0
Missouri	11,314	64.7	5,841	33.4	295	1.7	6,136	35.1	45	0.3	17,495	100.0
Montana	2,688	82.8	14	0.4	179	5.5	193	5.9	364	11.2	3,245	100.0
Nevada	6,352	88.6	579	8.1	184	2.6	763	10.6	53	0.7	7,168	100.0
New Jersey	17,664	43.8	15,474	38.4	7,013	17.4	22,487	55.8	178	0.4	40,329	100.0
New Mexico	4,766	89.1	118	2.2	466	8.7	584	10.9	0	0.0	5,350	100.0
New York	80,289	53.5	60,424	40.3	3,951	2.6	64,375	42.9	5,337	3.6	150,001	100.0
(City)	39,855	41.8	49,661	52.1	3,441	3.6	53,102	55.7	2,342	2.5	95,299	100.0
(State)	40,434	73.9	10,763	19.7	510	0.9	11,273	20.6	2,995	5.5	54,702	100.0
N. Carolina	21,153	57.5	13,861	37.7	1,050	2.9	14,911	40.5	735	2.0	36,799	100.0
N. Dakota	1,634	92.8	16	0.9	109	6.2	125	7.1	2	0.1	1,761	100.0
Oregon	12,596	90.4	564	4.0	539	3.9	1,103	7.9	229	1.6	13,928	100.0
Rhode Island	6,388	82.9	851	11.0	322	4.2	1,173	15.2	143	1.9	7,704	100.0
S. Carolina	7,906	57.5	5,631	41.0	196	1.4	5,827	42.4	8	0.1	13,741	100.0
S. Dakota	848	94.2	2	0.2	50	5.6	52	5.8	0	0.0	900	100.0
Tennessee	13,837	65.7	6,912	32.8	254	1.2	7,166	34.0	47	0.2	21,050	100.0
Texas	63,678	78.5	14,884	18.4	2,345	2.9	17,229	21.2	203	0.3	81,110	100.0

TABLE 8. Reported legal abortions, by race and state of occurrence — selected states,* United States, 1989 — Continued

State	White†		Black		Other		Black/other		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Utah	4,332	87.5	95	1.9	477	9.6	572	11.6	46	0.9	4,950	100.0
Vermont	3,244	97.9	19	0.6	33	1.0	52	1.6	17	0.5	3,313	100.0
Virginia	21,065	63.5	11,081	33.4	880	2.7	11,961	36.0	160	0.5	33,186	100.0
Wisconsin	14,017	79.8	3,136	17.8	390	2.2	3,526	20.1	32	0.2	17,575	100.0
Total	**399,734**	**63.0**	**194,034**	**30.6**	**28,895**	**4.6**	**222,929**	**35.1**	**11,597**	**1.8**	**634,260**	**100.0**
Abortion ratio¶	**252**		**496****		**338††**		**446**				**296**	

*All 31 states for which data are available, the District of Columbia, and New York City.
†White race includes those of Hispanic ethnicity.
§Includes black and other races.
¶Calculated as the number of legal abortions obtained by women of a given race per 1,000 live births to women of the same race for these states. For each state, data for women of unknown race were distributed according to known race distribution for that state.
**Excludes states reporting race unknown for >15% of women having abortions.
††Ratio for black race excludes Kentucky because live births for blacks and others were grouped together.
Ratio for other race excludes Louisiana because abortions for blacks and others were grouped together.
—Not reported.

TABLE 9. Reported legal abortions, by marital status and state of occurrence — selected states,* United States, 1989

State	Married†		Unmarried§		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%
Arizona	2,903	22.9	8,322	65.6	1,463	11.5	12,688	100.0
Arkansas	1,028	20.8	3,739	75.7	175	3.5	4,942	100.0
Colorado	2,559	20.6	9,754	78.4	132	1.1	12,445	100.0
Georgia	7,297	20.4	28,192	78.6	368	1.0	35,857	100.0
Hawaii	1,369	25.8	3,879	73.0	68	1.3	5,316	100.0
Idaho	346	22.2	1,199	76.9	14	0.9	1,559	100.0
Indiana	2,395	18.9	10,029	78.9	280	2.2	12,704	100.0
Kansas	1,416	20.0	5,649	79.9	4	0.1	7,069	100.0
Kentucky	1,957	18.3	8,503	79.6	219	2.1	10,679	100.0
Maine	904	19.3	3,538	75.5	243	5.2	4,685	100.0
Maryland	4,793	21.3	17,099	75.9	631	2.8	22,523	100.0
Massachusetts	8,451	21.5	26,871	68.4	3,966	10.1	39,288	100.0
Michigan	6,808	18.6	29,520	80.7	241	0.7	36,569	100.0
Minnesota	3,100	17.8	13,973	80.3	325	1.9	17,398	100.0
Mississippi	1,038	18.9	4,334	78.9	118	2.1	5,490	100.0
Missouri	3,815	21.8	13,322	76.1	358	2.0	17,495	100.0
Montana	607	18.7	2,449	75.5	189	5.8	3,245	100.0
Nevada	1,742	24.3	5,258	73.4	168	2.3	7,168	100.0
New Jersey	8,831	21.9	31,356	77.8	142	0.4	40,329	100.0
New Mexico	1,053	19.7	4,231	79.1	66	1.2	5,350	100.0
New York	22,189	14.8	125,669	83.8	2,143	1.4	150,001	100.0
(City)	19,382	20.3	73,774	77.4	2,143	2.2	95,299	100.0
(State)	2,807	5.1	51,895	94.9	0	0.0	54,702	100.0
N. Carolina	8,695	23.6	27,370	74.4	734	2.0	36,799	100.0
N. Dakota	287	16.3	1,471	83.5	3	0.2	1,761	100.0
Ohio	6,376	17.6	27,141	74.8	2,774	7.6	36,291	100.0
Oregon	3,218	23.1	10,467	75.2	243	1.7	13,928	100.0
Rhode Island	1,740	22.6	5,890	76.5	74	1.0	7,704	100.0
S. Carolina	2,919	21.2	10,820	78.7	2	0.0	13,741	100.0
S. Dakota	172	19.1	728	80.9	0	0.0	900	100.0
Tennessee	4,449	21.1	16,389	77.9	212	1.0	21,050	100.0
Texas	19,506	24.0	61,492	75.8	112	0.1	81,110	100.0
Utah	1,869	37.8	3,081	62.2	0	0.0	4,950	100.0
Vermont	678	20.5	2,280	68.8	355	10.7	3,313	100.0
Virginia	5,297	16.0	25,571	77.1	2,318	7.0	33,186	100.0
Wisconsin	2,532	14.4	14,950¶	85.1	93	0.5	17,575	100.0
Wyoming	86	24.4	263	74.7	3	0.9	352	100.0
Total	**142,425**	**19.6**	**564,799**	**77.9**	**18,236**	**2.5**	**725,460**	**100.0**
Abortion ratio**	**81**		**921**				**297**	

*All 35 states for which data are available and New York City.
†Married includes married and separated, unless otherwise specified.
§Unmarried includes never married, divorced, and widowed, unless otherwise specified.
¶Includes separated.
**Calculated as the number of legal abortions obtained by women of a given marital status per 1,000 live births to women of the same marital status for these states. For each state, data on women of unknown marital status are distributed according to known marital status distribution for that state. Excludes states reporting marital status unknown for >15% of women having abortions.

TABLE 10. Reported legal abortions, by number of previous live births and state of occurrence — selected states,* United States, 1989

State	Number of previous live births													
	0		1		2		3		≥4		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	6,279	49.5	2,851	22.5	2,093	16.5	962	7.6	484	3.8	19	0.1	12,688	100.0
Arkansas	2,451	49.6	1,243	25.2	816	16.5	269	5.4	119	2.4	44	0.9	4,942	100.0
Colorado	7,255	58.3	2,481	19.9	1,810	14.5	612	4.9	235	1.9	52	0.4	12,445	100.0
Dist. of Col.	9,629	49.3	5,640	28.9	2,380	12.2	1,419†	7.3	—	—	467	2.4	19,535	100.0
Hawaii	2,471	46.5	1,199	22.6	957	18.0	371	7.0	271	5.1	47	0.9	5,316	100.0
Idaho	812	52.1	336	21.6	260	16.7	92	5.9	49	3.1	10	0.6	1,559	100.0
Indiana	8,975	70.6	2,286	18.0	826	6.5	226	1.8	93	0.7	298	2.3	12,704	100.0
Kansas	4,230	59.8	1,402	19.8	981	13.9	328	4.6	128	1.8	0	0.0	7,069	100.0
Kentucky	5,779	54.1	2,567	24.0	1,518	14.2	440	4.1	197	1.8	178	1.7	10,679	100.0
Maine	2,592	55.3	877	18.7	645	13.8	209	4.5	65	1.4	297	6.3	4,685	100.0
Maryland	10,207	45.3	6,138	27.3	3,582	15.9	1,101	4.9	439	1.9	1,056	4.7	22,523	100.0
Michigan	18,461	50.5	8,855	24.2	6,080	16.6	2,179	6.0	934	2.6	60	0.2	36,569	100.0
Minnesota	10,316	59.3	3,415	19.6	2,342	13.5	866	5.0	438	2.5	21	0.1	17,398	100.0
Mississippi	2,690	49.0	1,432	26.1	872	15.9	340	6.2	151	2.8	5	0.1	5,490	100.0
Missouri	8,462	48.4	4,312	24.6	3,059	17.5	1,149	6.6	324	1.9	189	1.1	17,495	100.0
Montana	1,918	59.1	545	16.8	521	16.1	185	5.7	76	2.3	0	0.0	3,245	100.0
Nebraska	3,628	61.8	986	16.8	818	13.9	290	4.9	149	2.5	0	0.0	5,871	100.0
Nevada	3,382	47.2	1,793	25.0	1,319	18.4	446	6.2	192	2.7	36	0.5	7,168	100.0
New Jersey	18,849	46.7	10,347	25.7	7,381	18.3	2,569	6.4	1,176	2.9	7	0.0	40,329	100.0
New Mexico	2,670	49.9	1,290	24.1	845	15.8	326	6.1	136	2.5	83	1.6	5,350	100.0
New York	67,012	44.7	34,022	22.7	24,883	16.6	9,810	6.5	5,664	3.8	8,610	5.7	150,001	100.0
(City)	33,337	35.0	23,976	25.2	17,571	18.4	7,230	7.6	4,575	4.8	8,610	9.0	95,299	100.0
(State)	33,675	61.6	10,046	18.4	7,312	13.4	2,580	4.7	1,089	2.0	0	0.0	54,702	100.0
N. Carolina	18,820	51.1	8,663	23.5	4,917	13.4	1,514	4.1	618	1.7	2,267	6.2	36,799	100.0
N. Dakota	1,053	59.8	327	18.6	233	13.2	103	5.8	44	2.5	1	0.1	1,761	100.0
Ohio	20,741	57.2	7,893	21.7	5,239	14.4	1,718	4.7	696	1.9	4	0.0	36,291	100.0
Oregon	7,035	50.5	2,906	20.9	2,145	15.4	796	5.7	386	2.8	660	4.7	13,928	100.0
Pennsylvania	27,527	53.6	11,897	23.2	7,979	15.5	2,683	5.2	1,132	2.2	123	0.2	51,341	100.0
Rhode Island	4,280	55.6	1,661	21.6	1,178	15.3	391	5.1	165	2.1	29	0.4	7,704	100.0
S. Carolina	7,136	51.9	3,437	25.0	2,266	16.5	664	4.8	236	1.7	2	0.0	13,741	100.0
S. Dakota	516	57.3	150	16.7	156	17.3	46	5.1	32	3.6	0	0.0	900	100.0
Tennessee	10,914	51.8	5,407	25.7	3,238	15.4	983	4.7	441	2.1	67	0.3	21,050	100.0
Texas	40,850	50.4	19,395	23.9	13,454	16.6	4,902	6.0	2,507	3.1	2	0.0	81,110	100.0

TABLE 10. Reported legal abortions, by number of previous live births and state of occurrence — selected states,* United States, 1989

	Number of previous live births													
	0		1		2		3		≥4		Unknown		Total	
State	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Utah	2,421	48.9	1,093	22.1	878	17.7	343	6.9	197	4.0	18	0.4	4,950	100.0
Vermont	1,993	60.2	564	17.0	466	14.1	144	4.3	61	1.8	85	2.6	3,313	100.0
Virginia	18,264	55.0	7,655	23.1	4,857	14.6	1,511	4.6	587	1.8	312	0.9	33,186	100.0
Washington	17,200	56.5	5,366	17.6	3,942	12.9	1,439	4.7	617	2.0	1,888	6.2	30,452	100.0
Wyoming	167	47.4	73	20.7	74	21.0	31	8.8	6	1.7	1	0.3	352	100.0
Total	**376,985**	**50.9**	**170,504**	**23.0**	**115,010**	**15.5**	**41,457**	**5.6**	**19,045**	**2.6**	**16,938**	**2.3**	**739,939**	**100.0**
Abortion ratio§	**368**		**212**		**289**		**265**		**223**				**293**	

*All 35 states for which data are available, the District of Columbia, and New York City.

†Includes 3 and ≥4 previous live births.

§Calculated as the number of legal abortions obtained by women with a given number of previous live births per 1,000 live births to women with the same number of previous live births for these states. For each state, women whose number of previous live births is unknown are distributed according to known number of previous live births for that state. Excludes states reporting number of previous live births unknown for >15% of women having abortions.

TABLE 11. Reported legal abortions by number of previous legal induced abortions and state of occurrence — selected states,* United States, 1989

State	Number of previous legal induced abortions											
	0		1		2		≥ 3		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	8,011	63.1	3,298	26.0	962	7.6	417	3.3	0	0.0	12,688	100.0
Arkansas	3,478	70.4	1,103	22.3	225	4.6	87	1.8	49	1.0	4,942	100.0
Colorado	7,394	59.4	3,348	26.9	1,065	8.6	546	4.4	92	0.7	12,445	100.0
Hawaii	2,529	47.6	1,423	26.8	723	13.6	574	10.8	67	1.3	5,316	100.0
Idaho	1,107	71.0	305	19.6	84	5.4	55	3.5	8	0.5	1,559	100.0
Indiana	9,007	70.9	2,257	17.8	823	6.5	456	3.6	161	1.3	12,704	100.0
Kansas	4,767	67.4	1,616	22.9	469	6.6	216	3.1	1	0.0	7,069	100.0
Kentucky	6,949	65.1	2,436	22.8	655	6.1	244	2.3	395	3.7	10,679	100.0
Maine	3,071	65.5	1,036	22.1	284	6.1	107	2.3	187	4.0	4,685	100.0
Maryland	10,292	45.7	7,161	31.8	2,720	12.1	1,354	6.0	996	4.4	22,523	100.0
Michigan	20,575	56.3	9,895	27.1	3,878	10.6	1,971	5.4	250	0.7	36,569	100.0
Minnesota	11,281	64.8	4,221	24.3	1,269	7.3	614	3.5	13	0.1	17,398	100.0
Mississippi	3,639	66.3	1,301	23.7	372	6.8	171	3.1	7	0.1	5,490	100.0
Missouri	10,522	60.1	4,406	25.2	1,338	7.6	625	3.6	604	3.5	17,495	100.0
Montana	2,303	71.0	680	21.0	176	5.4	86	2.7	0	0.0	3,245	100.0
Nebraska	5,148	87.7	549	9.4	125	2.1	39	0.7	10	0.2	5,871	100.0
Nevada	3,403	47.5	2,119	29.6	975	13.6	627	8.7	44	0.6	7,168	100.0
New Jersey	20,319	50.4	11,782	29.2	5,156	12.8	3,061	7.6	11	0.0	40,329	100.0
New Mexico	3,399	63.5	1,184	22.1	420	7.9	235	4.4	112	2.1	5,350	100.0
New York	67,772	45.2	40,768	27.2	20,366	13.6	14,532	9.7	6,563	4.4	150,001	100.0
(City)	35,147	36.9	28,816	30.2	16,249	17.1	12,475	13.1	2,612	2.7	95,299	100.0
(State)	32,625	59.6	11,952	21.8	4,117	7.5	2,057	3.8	3,951	7.2	54,702	100.0
N. Carolina	22,898	62.2	8,874	24.1	2,480	6.7	1,031	2.8	1,516	4.1	36,799	100.0
N. Dakota	1,308	74.3	361	20.5	80	4.5	12	0.7	0	0.0	1,761	100.0
Oregon	7,838	56.3	3,617	26.0	1,365	9.8	730	5.2	378	2.7	13,928	100.0
Pennsylvania	32,193	62.7	12,759	24.9	4,282	8.3	1,960	3.8	147	0.3	51,341	100.0
Rhode Island	4,734	61.4	2,017	26.2	627	8.1	301	3.9	25	0.3	7,704	100.0
S. Carolina	9,044	65.8	3,410	24.8	985	7.2	298	2.2	4	0.0	13,741	100.0
S. Dakota	760	84.4	111	12.3	24	2.7	5	0.6	0	0.0	900	100.0
Tennessee	14,058	66.8	4,917	23.4	1,438	6.8	581	2.8	56	0.3	21,050	100.0
Texas	50,318	62.0	21,643	26.7	6,374	7.9	2,769	3.4	6	0.0	81,110	100.0
Utah	3,220	65.1	1,185	23.9	353	7.1	183	3.7	9	0.2	4,950	100.0
Vermont	2,089	63.1	792	23.9	252	7.6	150	4.5	30	0.9	3,313	100.0

TABLE 11. Reported legal abortions by number of previous legal induced abortions and state of occurrence — selected states,* United States, 1989 — Continued

State	Number of previous legal induced abortions											
	0		1		2		≥ 3		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Virginia	19,701	59.4	9,013	27.2	2,902	8.7	1,249	3.8	321	1.0	33,186	100.0
Washington	15,790	51.9	7,769	25.5	3,097	10.2	1,900	6.2	1,896	6.2	30,452	100.0
Wyoming	256	72.7	68	19.3	23	6.5	4	1.1	1	0.3	352	100.0
Total	**389,173**	**56.9**	**177,424**	**25.9**	**66,367**	**9.7**	**37,190**	**5.4**	**13,959**	**2.0**	**684,113**	**100.0**

*All 34 states for which data are available and New York City.

TABLE 12. Number and percentage of reported legal abortions, by race, age group, and marital status — United States, 1989

Age group and marital status*	Race					
	White		Black/Other		Total	
	No.	%	No.	%	No.	%
Age group (years)						
<15	2,143	0.6	2,704	1.3	4,847	0.8
15–19	90,702	24.0	43,507	21.4	134,209	23.1
20–24	123,291	32.6	67,571	33.3	190,862	32.8
25–29	81,587	21.6	47,427	23.4	129,014	22.2
30–34	48,288	12.7	26,705	13.2	74,993	12.9
35–39	24,893	6.6	12,193	6.0	37,086	6.4
≥40	7,354	1.9	2,933	1.4	10,287	1.8
Total†	**378,258**	**100.0**	**203,040**	**100.0**	**581,298**	**100.0**
Marital status						
Married	76,705	21.9	31,758	18.3	108,463	20.7
Unmarried	272,921	78.1	141,647	81.7	414,568	79.3
Total§	**349,626**	**100.0**	**173,405**	**100.0**	**523,031**	**100.0**

* Excludes unknowns.
† Reported by 30 states and New York City.
§ Reported by 28 states and New York City.

TABLE 13. Number and percentage of reported legal abortions, by weeks of gestation, age group, and race — United States, 1989

Age group (years) and race*	Weeks of gestation													
	≤8		9–10		11–12		13–15		16–20		≥21		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Age (years)														
<15	1,980	34.2	1,419	24.5	1,009	17.4	650	11.2	574	9.9	164	2.8	5,796	100.0
15–19	69,313	41.6	45,108	27.1	25,137	15.1	14,445	8.7	9,899	5.9	2,631	1.6	166,533	100.0
20–24	112,567	48.3	61,450	26.4	30,662	13.2	16,238	7.0	9,736	4.2	2,373	1.0	233,026	100.0
25–29	83,602	53.2	40,008	25.5	18,312	11.7	8,731	5.6	5,176	3.3	1,205	0.8	157,034	100.0
30–34	52,382	57.1	22,515	24.5	9,245	10.1	4,324	4.7	2,706	2.9	627	0.7	91,799	100.0
35–39	27,048	59.4	10,722	23.5	4,252	9.3	1,794	3.9	1,418	3.1	314	0.7	45,548	100.0
≥40	7,618	60.4	2,896	23.0	1,133	9.0	476	3.8	400	3.2	91	0.7	12,614	100.0
Total†	**354,510**	**49.8**	**184,118**	**25.8**	**89,750**	**12.6**	**46,658**	**6.5**	**29,909**	**4.2**	**7,405**	**1.0**	**712,350**	**100.0**
Race														
White	196,585	52.3	95,563	25.4	43,764	11.7	21,839	5.8	14,105	3.8	3,689	1.0	375,545	100.0
Black/other	89,023	44.2	52,478	26.1	29,197	14.5	16,561	8.2	11,325	5.6	2,709	1.3	201,293	100.0
Total§	**285,608**	**49.5**	**148,041**	**25.7**	**72,961**	**12.6**	**38,400**	**6.7**	**25,430**	**4.4**	**6,398**	**1.1**	**576,838**	**100.0**

*Excludes unknowns.
†Reported by 30 states and New York City.
§Reported by 35 states and New York City.

TABLE 14. Number and percentage of reported legal abortions, by weeks of gestation and procedure — United States, 1989

Type of procedure*	Weeks of gestation													
	≤8		9–10		11–12		13–15		16–20		≥21		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Curettage (suction or sharp)	348,761	99.8	181,752	99.9	88,363	99.7	45,150	98.1	25,478	86.2	5,903	80.8	695,407	98.9
Intrauterine saline instillation	75	0.0†	73	0.0†	104	0.1	371	0.8	2,114	7.2	824	11.3	3,561	0.5
Intrauterine prostaglandin instillation	25	0.0†	24	0.0†	42	0.0†	150	0.3	1,129	3.8	405	5.5	1,775	0.3
Hysterotomy/ hysterectomy	56	0.0†	14	0.0†	9	0.0†	14	0.0†	26	0.1	5	0.1	124	0.0†
Other	498	0.1	112	0.1	141	0.2	339	0.7	815	2.8	165	2.3	2,070	0.3
Total§	**349,415**	**100.0**	**181,975**	**100.0**	**88,659**	**100.0**	**46,024**	**100.0**	**29,562**	**100.0**	**7,302**	**100.0**	**702,937**	**100.0**

*Excludes unknowns.
† ≤ 0.05%
§ Reported by 35 states and New York City.

TABLE 15. Number and case-fatality rates of abortion-related deaths reported to CDC, by type of abortion — United States, 1972–1987

Year	Induced		Spontaneous	Unknown	Total	Case-fatality rate*
	Legal	Illegal				
1972	24	39	25	2	90	4.1
1973	25	19	10	3	57	4.1
1974	26	6	21	1	54	3.4
1975	29	4	14	1	48	3.4
1976	11	2	13	1	27	1.1
1977	17	4	16	0	37	1.6
1978	9	7	9	0	25	0.8
1979	22	0	10	0	32	1.8
1980	9	1	7	2	19	0.7
1981	8	1	3	0	12	0.6
1982	11	1	6	0	18	0.8
1983	11	1	7	0	19	0.9
1984	12	0	6	0	18	0.9
1985	10	1	8	1	20	0.8
1986	10	0	5	2	17	0.8
1987	6	2	12	0	20	0.4
Total	**240**	**88**	**172**	**13**	**513**	**1.3**

* Legal induced abortion-related deaths per 100,000 legal induced abortions.

Influenza Surveillance—United States, 1991–92

Joseph H. Kent, M.D.*
Louisa E. Chapman, M.D., M.S.P.H.*
Leone M. Schmeltz*
Helen L. Regnery, Ph.D.†
Nancy J. Cox, Ph.D.†
Lawrence B. Schonberger, M.D., M.P.H.*
*Epidemiology Activity, Office of the Director, and
†The WHO Collaborating Center for Surveillance, Epidemiology, and Control of Influenza, Influenza Branch, Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases

Summary

During the 1991–92 influenza season, sustained regional influenza activity began to be reported by state and territorial epidemiologists in the United States in mid-October 1991. Sustained reporting of widespread influenza activity began in early November 1991, 5–10 weeks earlier than in any of the previous nine influenza seasons. Influenza caused substantial morbidity among school-age children and excess mortality among the elderly. Regional outbreaks of influenza ended 2–6 weeks earlier than in the previous nine influenza seasons, based on the last sustained state and territorial epidemiologists' reports. Nationally, >99% of isolates were influenza A. Influenza A(H3N2) predominated in all regions of the country, but isolation of influenza A(H1N1) increased proportionally as the season progressed. Isolation of influenza B (<1% of total isolates) clustered after February. The majority of isolates characterized were antigenically similar to components in the 1991–92 influenza vaccine. However, an influenza A(H1N1) strain that had undergone antigenic drift was detected in many regions of the country; this strain will be included in the 1992–93 influenza vaccine.

INTRODUCTION

In the United States influenza infections continue to result in increased visits to health-care providers for acute respiratory illness during each influenza season. In addition, during many seasons an increase can be documented in hospitalizations and mortality from acute pneumonia or chronic cardiopulmonary disease or other conditions that can be exacerbated by influenza infection (*1–3*). Because influenza viruses continue to evolve, new strains emerge to which the population is not immune. The most important intervention to prevent influenza-related morbidity and mortality is vaccination with the currently licensed inactivated influenza vaccine. The vaccine is reformulated yearly in an attempt to match antigenic changes in circulating strains (*4*). In collaboration with state and local health departments, CDC conducts influenza surveillance in the United States annually, from October through May, to monitor influenza activity and to detect antigenic changes in the circulating strains of influenza

virus. This report summarizes the surveillance data received by CDC during the 1991–92 influenza season.

METHODS

Sources of influenza surveillance from October 1991 through May 1992 were similar to those for previous influenza seasons:

State and territorial epidemiologists

Influenza activity, as assessed by the state and territorial epidemiologists, was reported on a weekly basis as widespread, regional, sporadic, or no activity.*

Sentinel physician surveillance network

One hundred thirty volunteer family practice physicians participated in a surveillance network in which the number of patients with influenza-like illness (ILI) and the total number of patient visits, by age group, were reported weekly. A subgroup of 69 physicians submitted nasopharyngeal specimens from selected patients to CDC for virus isolation.

World Health Organization (WHO) collaborating laboratories

Fifty-nine WHO collaborating laboratories in the United States, including 40 state or local health departments and 19 university or hospital laboratories, reported weekly the total number of specimens received for respiratory virus testing, as well as the number and type of influenza viruses isolated. Similar reports were received from nine additional laboratories that conducted surveillance of influenza cultures for the Health Care Finance Administration (HCFA) demonstration project sites.† Four of the 59 WHO laboratories also functioned as HCFA surveillance laboratories.

Pneumonia and influenza (P&I) deaths from 121 cities

Each week, the vital statistics offices of 121 cities reported the total number of death certificates filed that week for deaths due to any cause and the percentage of those for which pneumonia was listed as the underlying cause of death or for which influenza was mentioned in any position on the certificate. These data are graphed against a low mortality baseline developed each year by mathematical modeling of previous years' data; they provide an index for the severity of influenza activity. The baseline is calculated by using a robust regression procedure in which a periodic regression model is applied to percentages observed since 1983. An "epidemic threshold" for each season is arbitrarily set at 1.645 standard deviations above the seasonal baseline.

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* Levels of activity are a) sporadic—sporadically occurring influenza-like illness (ILI) or culture-confirmed influenza, with no outbreaks detected; b) regional—outbreaks of ILI or culture-confirmed influenza in a county or counties having a combined population <50% of the state's total population; c) widespread—outbreaks of ILI or culture-confirmed influenza in a county or counties having a combined population ≥50% of the state's total population.

† In 1988, Congress mandated grant funding for the Influenza Vaccine Demonstration Project with the goal of determining a) the cost-effectiveness of Medicare coverage of influenza vaccination and b) whether Medicare reimbursement and other measures to enhance vaccine delivery result in increased influenza vaccination levels among Medicare Part B beneficiaries.

RESULTS

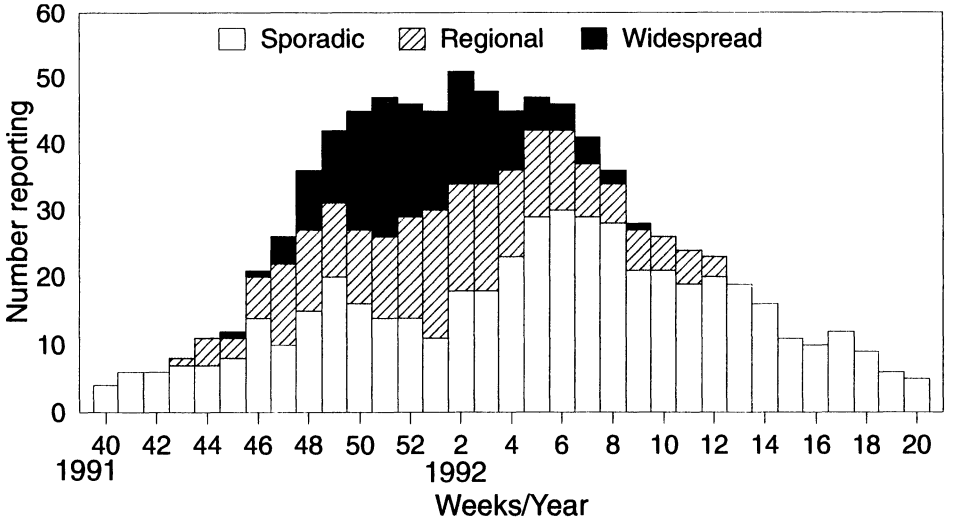
State and territorial epidemiologists

The Louisiana Department of Health and Hospitals became the first state health department to report regional influenza activity during the week ending October 26, 1991 (week 43), and 2 weeks later (week ending November 9, 1991) it was the first to report widespread influenza activity. By the end of November (week 48), state and territorial epidemiologists reported widespread influenza activity in nine states and regional activity in 12 states. On the basis of this surveillance system, influenza activity in the United States peaked from the week ending December 14, 1991 (week 50), through the week ending January 18, 1992 (week 3), when state and territorial epidemiologists reported regional or widespread activity in 29 to 34 states each week (Figure 1). Smaller numbers of state epidemiologists continued to report widespread activity through February. By the week ending March 21, 1992 (week 12), only three states (all west of the Mississippi) continued to report regional activity, and by the week ending March 28 (week 13), no states reported either regional or widespread activity (Figure 1).

Sentinel physicians network

The percentage of patient visits to sentinel physicians attributed to ILI first began to rise above the October baseline of 2.0%–3.0% during the week ending November 9, 1991 (week 45). Nationally, peak activity (10.0% of office visits) occurred during the week ending December 28, 1991 (week 52), and rapidly returned to baseline levels during the week ending February 8, 1992 (week 6) (Figure 2). Persons ≥65 years old

FIGURE 1. Reports by state and territorial health departments, 1991–92 influenza season — United States*



* Based on reports from 50 states, New York City, Washington, D.C., Puerto Rico, Virgin Islands, and the United States Jurisdictions.

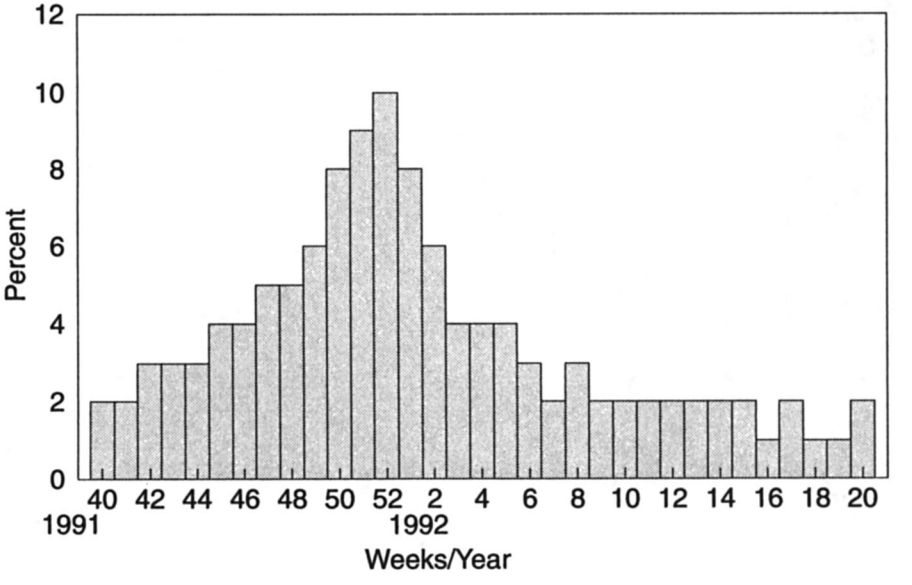
accounted for 10% of the patient visits for ILI and 46% of the hospitalizations due to ILI. The proportion of patient visits for ILI that resulted in hospitalization fluctuated from 2% to 12% throughout the surveillance period, with no clear pattern. However, from October 1 to November 2, 1991, an average of <10 ILI-associated hospitalizations were reported each week, compared with an average of >20 per week beginning November 3, 1991, through February 1, 1992 (weeks 45 through 5). More than 40 ILI-associated hospitalizations were reported during 3 of the 4 weeks beginning December 8, 1991, through January 4, 1992 (weeks 50–1). The peak in ILI-associated hospitalizations (n=53) occurred during the week ending January 4, 1992, 1 week after the peak of office visits for ILI and 2 weeks before the peak of influenza-associated mortality, as indicated by the percentage of P&I deaths from 121 U.S. cities (Figure 3).

Sentinel physicians submitted 236 specimens for respiratory virus testing; 101 (43%) were positive for influenza viruses. Of the positive specimens, 100 (99%) were type A and one (1%) was type B.

WHO collaborating laboratories

As of May 30, 1992, the 59 WHO collaborating laboratories and nine HCFA demonstration site surveillance laboratories combined tested 38,834 specimens for respiratory virus isolation. Influenza virus isolates were identified and reported to CDC for 5,964 (15.4%) of these specimens; of these, 5,914 (>99%) were influenza A and 50 were influenza B. Of the 4,110 influenza A isolates subtyped, 3,357 (82%) were influenza A(H3N2) and 753 (18%) were influenza A(H1N1) (Figure 4).

FIGURE 2. Percentage of visits to physicians' offices attributed to influenza-like illness — United States, 1991–92*



*Based on reports from 130 volunteer family practice physicians.

FIGURE 3. Pneumonia and influenza mortality for 121 cities — United States, January 1, 1988–July 31, 1992

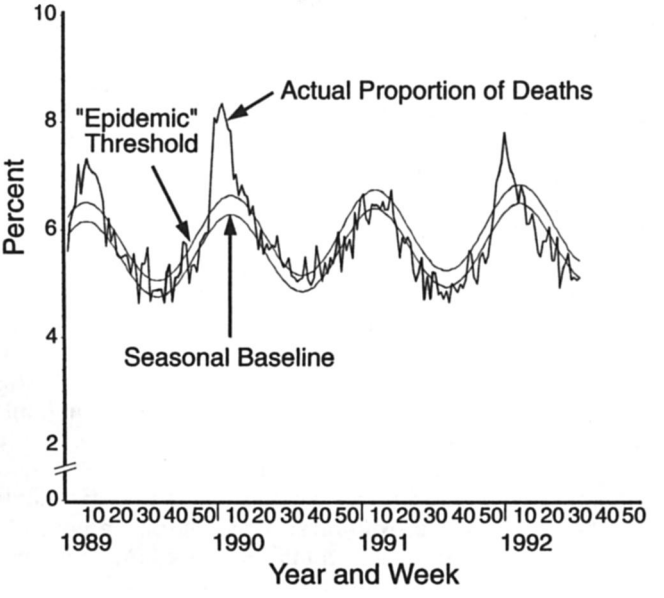
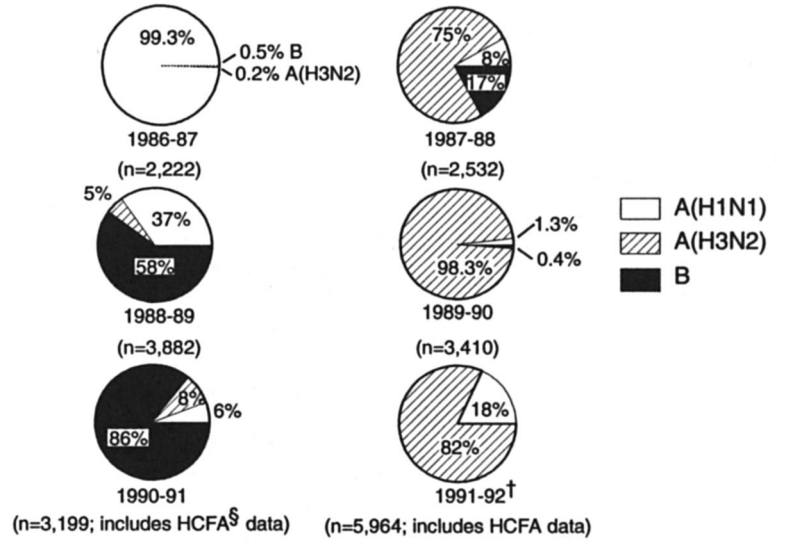


FIGURE 4. Influenza isolates* reported by the World Health Organization collaborating laboratories — United States, 1986–92



* Not all influenza A isolates were subtyped. The percentages shown are based on those subtyped.
† <0.01% influenza B.
§ HCFA = Health Care Finance Administration.

The number of isolations of influenza A(H3N2) peaked from middle to late December (weeks 50–52) (Figure 5). Influenza A(H3N2) accounted for 68%–100% of subtyped isolates in each of the nine surveillance regions this season (Figure 6). Almost all of an antigenically characterized sample of the influenza A(H3N2) isolates were similar to the A/Beijing/353/89 strain that was included in 1991–92 influenza vaccine (*5–6*).

Isolation of influenza A(H1N1) also peaked from middle to late December (weeks 50–52) (Figure 5). Influenza A(H1N1) was not isolated from the East South Central region. In the other eight regions of the country combined, influenza A(H1N1) accounted for 18% of subtyped influenza A isolates overall. However, influenza A(H1N1) accounted for 32% of influenza A isolates subtyped in the South Atlantic region and for 26% of subtyped influenza A isolates in the New England region. In the Middle Atlantic region influenza A(H1N1) was the dominant subtype (61%) before December (week 49). However, the H1N1 subtype rapidly lost regional dominance as the season progressed. Cumulatively, only 37% of isolates subtyped through week 52 and 31% at season's end remained H1N1. Nationally, the proportion of identified influenza viruses that was subtyped as A(H1N1) increased as the season progressed. Sixty-five percent of influenza A(H1N1) viruses that were isolated this season and antigenically characterized at CDC were closely related to influenza A/Taiwan/1/86, a component of the 1991–92 influenza vaccine (*6*). However, an influenza A(H1N1) that had undergone antigenic drift, influenza A/Texas/36/91, was isolated in the Middle Atlantic, South Atlantic, East North Central, West North Central, West South Central, Mountain, and Pacific regions. This antigenic variant accounted for 35% of the influenza A(H1N1) viruses isolated in the United States and antigenically characterized at CDC this season.

Influenza B made up <1% of the total isolates during the 1991–92 season, but was isolated from the Middle Atlantic, South Atlantic, West North Central, West South Central, Mountain, and Pacific Regions. Twenty-six of the 50 influenza B isolates reported this season were isolated during weeks 10 through 14. Isolates did not cluster by region. Antigenic heterogeneity was observed among the relatively few influenza B viruses isolated (*6*).

P&I deaths from 121 cities

During the week ending December 28, the proportion of deaths attributed to pneumonia or influenza (P&I) first exceeded the epidemic threshold (Figure 3). This proportion peaked at 7.79% of all deaths during the week ending January 18, 1992, substantially higher than the seasonal baseline for this week of 6.43%. The proportion of deaths attributed to P&I remained above the epidemic threshold for 7 consecutive weeks, through the week ending February 8, 1992. During this 7-week period, from December 22, 1991, through February 8, 1992, 82% of the P&I deaths reported were among persons ≥65 years of age.

From October 29 through November 20, 1991, CDC received reports from state health departments of outbreaks of culture-confirmed influenza A in schools in Alabama, Georgia, Minnesota, North Carolina, Ohio, Tennessee, and Texas. In these outbreaks, school absentee rates ranged from 11% to 40%; school closures in Ohio and Tennessee were reported to CDC (*7*). The first outbreak in a nursing home reported to CDC was from Ohio on November 21, 1991 (*8*), and multiple reports of influenza A outbreaks in nursing homes were received during December 1991 and January 1992.

FIGURE 5. Influenza virus isolates reported by the World Health Organization collaborating laboratories — United States, 1991–92

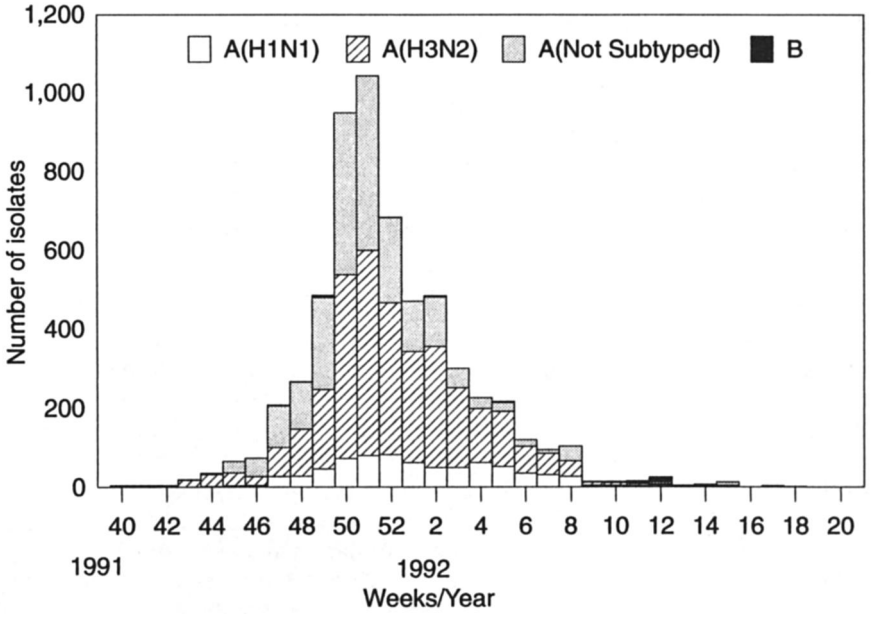
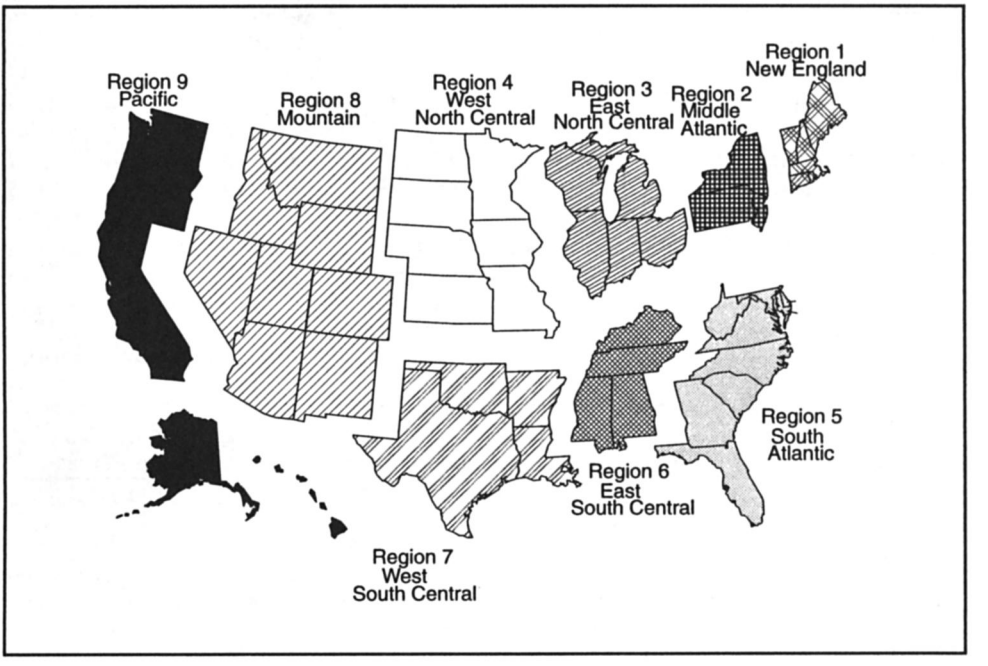


FIGURE 6. United States influenza surveillance regions



DISCUSSION

All components of CDC's influenza surveillance indicated that influenza activity in the United States during the 1991–92 season began earlier than in recent seasons. Sustained reporting of widespread activity by state and territorial epidemiologists during the 1991–92 season began 5–10 weeks earlier than during the previous nine seasons, and reports of regional and widespread activity peaked 6 weeks earlier than the average for the previous nine seasons (*9–17*). The percentage of patient visits attributed to ILI as reported by the sentinel physicians peaked at levels similar to those of previous seasons. However, compared with the average for the previous nine influenza seasons, the initial increase in activity was 3 weeks early, and activity returned to baseline 8 weeks early (*9–17*).

The reports of dramatic influenza outbreaks among school-age children that characterized the season from October to December were superseded by reports of ILI among the elderly, as evidenced by outbreaks in nursing homes from December 1991 through late January 1992. The proportion of all deaths attributed to P&I, an index of influenza-associated mortality, exceeded the epidemic threshold for 7 weeks from late December to mid-February, a period which coincided temporally with reports of outbreaks in nursing homes. As in previous seasons, approximately 80% of P&I deaths reported from the 121 cities participating in the surveillance system were among persons ≥65 years of age. The 1991–92 influenza season was the fifth in the last 10 seasons during which influenza A(H3N2) predominated. In each of these five influenza A(H3N2)-dominant seasons, the proportion of all deaths attributed to P&I reflected excess influenza-associated mortality (*9–17*). Influenza activity, as reported in all of CDC's influenza surveillance systems, returned to baseline levels by early March, 5–8 weeks earlier than the average for the previous nine influenza seasons (*9–17*). Thus, despite the unusually early onset of increased influenza activity during the 1991–92 influenza season, the duration of increased activity was similar to that of recent seasons.

The H3N2 and H1N1 strains of influenza A co-circulated throughout the season. Influenza A(H3N2) predominated, but influenza A(H1N1) circulated in eight of nine regions of the country, accounted for 18% of subtyped influenza A isolates overall, and increased proportionally as the season progressed. Influenza B isolates were rare and occurred late in the season.

The components of the influenza vaccine for the 1991–92 influenza season (A/Beijing/353/89[H3N2], A/Taiwan/1/86[H1N1], and B/Panama/45/90) (*5*) were well matched to the predominant circulating strains during the season. However, a new A(H1N1)

TABLE 1. Hemagglutination-inhibition titers of influenza A(H1N1) viruses with serum specimens from infected ferrets*

	Ferret antiserum		
Reference antigen	**A/Taiwan/1/86**	**A/Sichuan/4/88**	**A/Texas/36/91**
A/Taiwan/1/86	2560	320	320
A/Sichuan/4/88	1280	1280	320
A/Texas/36/91	640	40	640

* Titers are used to infer antigenic relationships between viruses. Differences of fourfold in titer of a serum with two viruses are normally indicative of an experimentally significant variation between the viruses. In some cases, only asymmetric differences are seen when several variants are tested simultaneously.

variant (A/Texas/36/90) was identified in many regions of the United States during the 1991–92 influenza season. Antibody induced by the A/Taiwan/1/86 vaccine component reacted at lower titers with the A/Texas/36/91 virus and other representative 1991 A(H1N1) viruses than with A/Taiwan/1/86 in several vaccine studies. Antibody induced in ferrets by A/Texas/36/91 reacted well with A/Texas/36/91 and other representative 1991 A(H1N1) viruses (Table 1), and this virus was chosen as the H1N1 component for the 1992–93 influenza vaccine (*6*).

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State and Territorial Epidemiologists and Laboratory Directors

State and Territorial Epidemiologists and Laboratory Directors are gratefully acknowledged for their contributions to this report. The epidemiologists listed below were in the positions shown as of September 4, 1992, and the laboratory directors listed below were in the positions shown as of August 1992.

State/Territory	Epidemiologist	Laboratory Director
Alabama	Charles H. Woernle, MD, MPH	William J. Callan, PhD
Alaska	John P. Middaugh, MD	Katherine A. Kelley, DrPH
Arizona	Larry Sands, DO, MPH (Acting)	Barbara J. Erickson, PhD
Arkansas	Thomas C. McChesney, DVM	Robert L. Horn
California	George W. Rutherford, MD	Michael G. Volz, PhD
Colorado	Richard E. Hoffman, MD, MPH	Ronald L. Cada, DrPH
Connecticut	James L. Hadler, MD, MPH	Sanders F. Hawkins, PhD (Acting)
Delaware	A. LeRoy Hathcock, Jr., Ph.D.	Mahadeo P. Verma, PhD
District of Columbia	Martin E. Levy, MD, MPH	James B. Thomas, ScD
Florida	Richard S. Hopkins, MD, MSPH	E. Charles Hartwig, ScD
Georgia	Joseph A. Wilber, MD	Elizabeth A. Franko, PhD
Hawaii	Richard L. Vogt, MD	Vernon K. Miyamoto, PhD
Idaho	Fritz R. Dixon, MD	Richard H. Hudson, PhD
Illinois	Byron J. Francis, MD, MPH	David F. Carpenter, PhD
Indiana	Mary Lou Fleissner, DrPH	Gregory V. Hayes, DrPH
Iowa	Laverne A. Wintermeyer, MD	W. J. Hausler, Jr, PhD
Kansas	Andrew R. Pelletier, MD	Roger H. Carlson, PhD
Kentucky	Reginald Finger, MD, MPH	Thomas E. Maxson, DrPH
Louisiana	Louise McFarland, DrPH	Henry B. Bradford, Jr, PhD
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Maryland	Ebenezer Israel, MD, MPH	J. Mehsen Joseph, PhD
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Minnesota	Michael T. Osterholm, PhD, MPH	Pauline Bouchard, JD, MPH
Mississippi	F. E. Thompson, Jr, MD, MPH	R. H. Andrews, MPH
Missouri	H. Denny Donnell, Jr, MD, MPH	Eric C. Blank, DrPH
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New York State	Guthrie Birkhead, MD	Lawrence Sturman, MD, PhD
North Carolina	J. Newton MacCormack, MD, MPH	Samuel N. Merritt, DrPH
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Ohio	Thomas J. Halpin, MD, MPH	Gary D. Davidson, DrPH
Oklahoma	Paul Zenker, MD, MPH	Garry L. McKee, PhD
Oregon	David Fleming, MD	Charles D. Brokopp, DrPH
Pennsylvania	Dale R. Tavris, MD, MPH	Bruce Kieger, DrPH (Acting)
Rhode Island	Bela Matyas, MD, MPH	Raymond G. Lundgren, Jr., PhD
South Carolina	Dee Breeden, MD, MPH (Acting)	Harold Dowda, PhD
South Dakota	Kenneth A. Senger	Kathleen L. Meckstroth, DrPH
Tennessee	Robert H. Hutcheson, MD, MPH	Michael W. Kimberly, DrPH
Texas	Diane M. Simpson, MD, PhD	Charles E. Sweet, DrPH
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Vermont	Robert Houseknecht, PhD	Burton W. Wilcke, Jr, PhD
Virginia	Grayson B. Miller, Jr, MD	D. B. Smit (Acting)
Washington	Mark Oberle, MD, MPH	Jon M. Counts, DrPH
West Virginia	Loretta E. Haddy, MA, MS	Frank W. Lambert, Jr, DrPH
Wisconsin	Jeffrey P. Davis, MD	Ronald H. Laessig, PhD
Wyoming	Stanley I. Music, MD, DTPH	Carl H. Blank, DrPH
American Samoa	Julia L. Lyons, MD, MPH	—
Federated States of Micronesia	Steven Auerbach, MD, MPH	—
Guam	Robert L. Haddock, DVM, MPH	Jeff Benjamin (Acting)
Marshall Islands	Tony de Brum	—
Northern Mariana Islands	Sean P. Flood, MD, MPH	—
Palau	Yugi Mesubed, MD	—
Puerto Rico	John V. Rullan, MD, MPH	Raul Baco Dapena, DVM
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