Healthy Mothers, Healthy Babies Coalition—A Joint Private-Public Initiative

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FEWER THAN 9 DEATHS PER 1,000 LIVE BIRTHS and continuing improvement in maternal and infant health is the 1990 goal for pregnancy and infant health in the United States proposed in "Promoting Health/Preventing Disease—Objectives for the Nation" (*1*). To achieve the goal, more than 50 organizations with national constituencies and local affiliates have begun working together.

Background

During the 9 months preceding birth, when the fetus is the most vulnerable, both mother and child need to be protected. The principal threats to the survival of the infant and its subsequent good health are low birth weight and congenital birth defects. Two-thirds of all those who die in infancy are of low birth weight (*2*). Congenital abnormalities, including those of genetic origin, a severe environmental insult in utero, or a birth injury, are also responsible for early deaths or poor health. In addition, low birth weight is associated with increased occurrence of mental retardation, growth and developmental disorders, and disorders of the central nervous system.

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Reducing the incidence of low birth weight and birth defects through intervention with the mother before and during pregnancy is being given high priority by medical and public health leaders in the United States. Although how to prevent low birth weight is not completely understood, a number of factors—diet; social and economic status; marital status; the age of the mother; use of alcohol, cigarettes, and drugs; and use of prenatal health services—affect birth weight and health of the mother and child. For example, black women and teenagers, those who are at greatest risk of delivering a low birth weight infant, are least likely to obtain any or early prenatal care.

Reducing the incidence of congenital abnormalities requires genetic counseling to identify the risk status of the parents and establishing prenatal diagnoses for those women at risk. Diagnostic testing is presently limited to a small number of inherited conditions, but testing services are available for high-risk groups once vulnerability has been identified. Environmental hazards that can cause congenital defects include radiation, drugs (including medications), alcohol, infectious agents, and workplace and household exposures to toxic and teratogenic substances. Although the period of greatest danger is the early weeks of fetal development, even before a woman realizes she is pregnant, it is im-

portant to avoid these hazards throughout pregnancy as much as possible.

In September 1981, a Healthy Mothers, Healthy Babies organizational conference brought together representatives of more than 36 national voluntary, professional, and government organizations to discuss combining their interests and resources to improve the quality and reach of public and professional education relating to prenatal and infant care. The conference was co-sponsored by the American College of Obstetricians and Gynecologists, American Academy of Pediatrics, American Nurses Association, March of Dimes, National Congress of Parents and Teachers, and the Public Health Service. At that conference, Richard S. Schweiker, Secretary of Health and Human Services, said that "by pulling together all our resources and energies, we can make 'healthy mothers' a far-reaching, truly national effort. By joining forces we'll reinforce the trend of the last 10 years." Out of that conference grew the Healthy Mothers, Healthy Babies Coalition, a result of the organizations' enthusiasm about working together in a long-term effort aimed at improving maternal and child health. This partnership of government, professional, and voluntary organizations and agencies is designed to increase the awareness of pregnant women about the importance of good health for themselves and their unborn babies.

Achievement of this goal of health depends largely on provision of high-quality prenatal, obstetrical, and neonatal care; of preventive services during the first year of life; education of health professionals; and broad public information activities aimed at pregnant women and their families. Coalition members recognize that these efforts all require a long-term commitment of interest and resources. Although the coalition acknowledges the primary importance of delivering the health services, its purpose is to improve the quality and reach of public education concerning prenatal and infant care. Coalition members agree to work toward this goal both through the activities of their respective organizations and through collaborative efforts undertaken by the coalition.

An important activity of the coalition will be to devise better methods of sharing information, especially about educational materials and programs that prove effective. In addition to the information exchange, the coalition's member agencies will seek opportunities to work together in disseminating materials through many channels to relevant target audiences—pregnant women, women planning pregnancy, teenagers, fathers and other family members, and minorities. Finally, in a time of limited resources, the coalition will organize efforts to share the production of high-quality print, broadcast, and film materials.

The coalition is an informal association that has grown to include more than 50 groups with shared goals but with no dues or formal membership requirements. All national members meet these criteria:

- a charter, purpose, or constituency that is national in scope or broadly represents a special population group or groups and has a significant commitment to prenatal or infant care, or both;
- a structure of State or local affiliates or another type of network to reach constituents at the regional, State, or local level;
- a commitment to make this network available to help disseminate materials and information about "Healthy Mothers, Healthy Babies."

The steering committee for the coalition met first on March 23, 1982, to chart future activities for this partnership. Between quarterly steering committee meetings, three subcommittees meet to develop coalition policy, explore networking opportunities between national and local coalition affiliates, and encourage joint development of educational materials. National members are kept informed of coalition progress through a quarterly newsletter published by the American College of Obstetricians and Gynecologists; local chapters of member organizations receive the newsletter through their national offices.

Cooperative Ventures

Currently, coalition members are cooperating in the following activities.

- A series of resource packages have been prepared by the Department of Agriculture (USDA), Department of Health and Human Services (DHHS), and the March of Dimes. The packages, prepared for staff of health, food assistance, and other related nutrition programs, focus on the special needs, interests, and lifestyles of teenagers. The packages include lesson plans for pregnant teenagers, posters, and booklets, and are available to State agencies administering the Women, Infants, and Children programs.
- A national breast feeding promotion effort is being directed to health providers, expectant mothers, and the general public. Two Federal departments, USDA and DHHS, have joined forces with six professional organizations and several voluntary agencies to promote the practice of breast feeding. The goal is to increase the proportion of mothers who breast feed their infants at hospital discharge from 45 percent to 75 percent and, at 6 months of age, from 21 percent to 35 percent. The lack of knowledge among health care providers, the

lack of widely available information for the public, and weak or nonexistent support systems will be addressed by distributing professional and public educational materials. A teleconference at approximately 100 sites on breast feeding and infant and maternal nutrition will introduce the campaign to health professionals.

• A campaign has been launched to promote the use of seatbelts among expectant mothers. The leading cause of death of pregnant women in the United States is automobile accidents (*2,3*). The American College of Obstetricians and Gynecologists (ACOG), U.S. Department of Transportation, Nurses Association of the American College of Obstetricians and Gynecologists (NAACOG), and the American Academy of Pediatrics (AAP), have joined to prepare materials and information for the 55,000 physicians and nurses who work with expectant mothers and young children. ACOG and NAACOG will work with AAP and other groups at the local level to reach physicians and other health professionals who could speak to groups on the need to use seatbelts during pregnancy.

• A series of posters and information cards for clinics serving low-income, new or expectant mothers will be issued. Six posters and accompanying cards, in English and Spanish, will cover nutrition, smoking, breast feeding, alcohol, use of medications, and the importance of regular medical care. Clinics that subscribe to the series receive a new poster and a supply of postcard-size health cards every 2 months. (Examples of the posters appear on the front cover and inside back cover of this issue of *Public Health Reports.*) Sponsors include the Public Health Service, American College of Obstetricians and Gynecologists, March of Dimes, Licensed Beverage Information Council, and Gerber Foods.

• Public service radio spot announcements, in English and Spanish, with the Healthy Mothers, Healthy Babies theme featuring the Surgeon General of the Public Health Service, Dr. C. Everett Koop, were jointly produced and distributed by the Service and the March of Dimes.

• A series of six newspaper columns in English and Spanish on prenatal care were authored by the Surgeon General. Similar columns were produced by the Public Health Service with the National Medical Association and the National Newspaper Publishers Association for black newspapers. Also, Gerber Products is asking editors of consumer magazines to print information on good prenatal care.

• The Public Health Service and other coalition members will jointly produce a prepackaged television show on prenatal care suitable for local origination.

• A directory of educational materials on prenatal and infant care produced by coalition members has been published to help assure that organizations can share resources and to identify gaps in existing materials (*4*). The directory lists printed and audiovisual materials designed for the general public and health professionals. Notices of new materials appear in the coalition newsletter, and the newsletter also carries reports on new local or national educational programs, conferences, and ideas.

Public Health Service Contributions

Recognizing the need to alert pregnant women (and women planning a pregnancy) to the risks that they may face, a number of Public Health Service agencies have highlighted pregnant women as target audiences for their communications projects. Descriptions of some representative projects follow.

Smoking. The Surgeon General's 1980 report to Congress (*5*) was devoted to the health consequences of women's smoking, including the special risks to the fetus. Public information activities, primarily through the mass media, continue through the Service's Office on Smoking and Health.

Fetal alcohol syndrome (FAS). Evidence that moderate use of alcohol can result in fetal anomalies (as well as the established risk from excessive use), prompted the leaders of the National Institute on Alcohol Abuse and Alcoholism to launch a national program to reach pregnant women through the mass media and community channels. The FAS program, conducted through State and local organizations, uses a variety of materials including television spots in English and Spanish to deliver the message that it is best not to drink during pregnancy. (In addition, a number of States are continuing their own FAS campaigns.)

Use of medications. The Food and Drug Administration has distributed print and broadcast materials advising pregnant women to consult their physicians before using any over-the-counter or prescription drug.

Reproductive effects of exposure to hazardous substances. The National Institute for Occupational Safety and Health, in cooperation with the American College of Obstetricians and Gynecologists, is putting together a program designed to increase awareness of these substances.

Healthy mothers and sexually transmitted diseases (STD). The Centers for Disease Control have many educational and screening programs addressed to health professionals and the public. Activities are underway in national voluntary organizations, and school curricular materials on STDs are being readied.

Maternal and infant nutrition. The Office of Maternal and Child Health (OMCH), USDA, and March

of Dimes have produced information resource packets for nutritionists and other professionals. With these and other coalition members, the Office is developing a national campaign promoting breast feeding.

Staff of the Assistant Secretary for Health track these categorical programs, link them with the coalition members and their activities, conduct market research to encourage more effective targeting to pregnant women and those planning a pregnancy, and are developing an "umbrella" campaign.

Messages and Target Audiences

This Healthy Mothers umbrella campaign emphasizes the positive steps a pregnant woman can take to help herself and her new baby. Messages about eating proper foods, exercising, and other actions can offer more encouragement and incentive for a woman than telling her what *not* to do. This total health promotion effort is needed to explain all of the risks that the woman faces and help her identify which risks apply to her. The process of personalizing health recommendations may be very important to a woman who is deciding to take the next (action) step. In addition, winnowing out those risks that do not apply helps to prevent her from developing an overwhelming sense of loss of control. The purpose is to emphasize the personal control—and responsibility—a woman has over her health.

Because the 9 months of pregnancy is finite, and a woman has more incentive at this time to adhere to health advice, this period can be an ideal intervention point for modifying health behavior. Healthful habits started during pregnancy may be continued, given proper reinforcement and reward. Further, the umbrella campaign provides the opportunity for addressing —in perspective—new risks and new advice as knowledge becomes available. The public is confused as a result of myriad reports of new health risks—some vital to health status, some extremely remote risks. The umbrella campaign is designed to help a woman understand relative risks and to combat the fatalism resulting from too many negative health reports.

Messages in the Healthy Mothers, Healthy Babies campaign are based on the preventive services for the pregnant woman recommended in "Healthy People," the Surgeon General's 1979 report on health promotion and disease prevention (2). These services include history taking, physical examination, laboratory tests, and counseling, with referrals made as necessary and desired. The information messages address issues which the woman largely can control—the importance of regular prenatal care; nutrition before conception and during pregnancy; cigarette smoking; use of alcohol, drugs and caffeine; avoidance of X-rays and environmental risks; signs of abnormal pregnancy; physical activity and exercise; preparation for labor and delivery; nutrition of the infant (including breast feeding); and preparation for infant care (including obtaining a safe car-restraining device and having the child immunized).

Specific messages are tailored to each target audience, based on the level of knowledge and attitudes toward health and pregnancy, lifestyle, and the kinds of information these women are most eager to obtain. Although some messages in this campaign are directed at all pregnant women, special attention is devoted to reaching at least three groups especially at risk: women with a known medical risk (genetic, chronic disease, over 35 years old); women in the lower socioeconomic groups; and pregnant teenagers.

Women medically at high risk. Infants born to women with toxemia and uterine infections have a mortality rate four to five times higher than others (2). For mothers with such medical conditions as diabetes, hypertension, or kidney or heart disease, there is a higher risk of bearing babies who will not survive their first year or be severely impaired, risks which early competent medical care can reduce. Sexually transmitted diseases can cause abortion, congenital defects, neonatal deaths, and maternal morbidity and deaths. Certain birth defects, such as severe brain and spinal cord defects and Down's syndrome, can sometimes be anticipated in high-risk women.

Women with known medical risks need special information that may best be interpreted and delivered by a health professional. And, in most instances, these women should know about their risks before becoming pregnant.

Women socially at high risk. Maternal and infant mortality records show striking demographic variations that were cited in "Healthy People" (2):

The maternal mortality rate for blacks was about three times that for whites in 1976;

Infant mortality for the total population was 13.0 per 1,000 live births in 1979; the rate for black infants was 92 percent higher than for whites in 1978;

Infant mortality rates for individual States ranged from 9.5 to a high of 18.2 in 1977;

Infant mortality rates for major cities in 1977 ranged from 10.0 to 27.4; 22 of the 26 major cities had higher rates than the national average of 14.1 in 1977.

Many infants in the United States are born to women who are poorly prepared for childbearing: in 1976, at least 29 percent of women giving birth made no prenatal visit during the first trimester, and 6 percent had had no prenatal care during either of the

first 2 trimesters. Yet, about 80 percent of women at high risk of having a low birth weight infant can be identified in the first prenatal visit, and action can be taken to reduce the risk.

Poor nutrition is a possible correlate of low birth weight. Nutritional supplementation programs (such as the Special Supplemental Food Program for Women, Infants, and Children) may help ensure a better pregnancy outcome. Data from developing countries suggest that an adequate diet during the last weeks of pregnancy may even be able to offset the effects on the birth weight of earlier severe dietary deficiencies (*6*).

An analysis of birth weight distribution according to socioeconomic status reveals a clear relationship between birth outcomes and socioeconomic background; the birth weight of black infants of higher socioeconomic status is comparable to that of whites (*2*). Further, where prenatal care services, diet supplementation, income support, minimum housing, and other social services are accessible, information programs can contribute to the total population's broader awareness of these services (and tell women where services are available). Clearly, education alone cannot correct socially influenced problems that lead to high-risk pregnancies.

Women planning a pregnancy. Even before they become pregnant, women need to know about factors that may affect the health of their future babies. Providing information about risks of using cigarettes, alcohol, and drugs is an important part of prenatal care, but many women are pregnant for several weeks before knowing that they are, and it is at the very early stages that the fetus is the most vulnerable. Early on, too, the fetus can be affected by toxic chemicals and infectious agents. Moreover, exposure to ionizing radiation above a certain level in the first week or two of pregnancy increases the risk of spontaneous abortion, and subsequent exposures, especially during weeks two through six, increase the risks of malformations and some childhood cancers, including leukemia.

Family planning involves more than the question of when to have a child; for some people, the question is whether. Couples at high risk of conceiving a child with an inherited disorder may wish to consider whether to have children. Carriers of the trait for sickle cell anemia, Tay-Sachs disease, or hemophilia can be detected through analysis of blood samples. Women with chronic diseases, such as diabetes, coronary artery disease, kidney disease, or hypertension, are at special risk and need to be aware of their extra care requirements before becoming pregnant. Women in hazardous occupations need to know the special dangers they face. And all women planning a pregnancy should be certain that they are protected against rubella.

Teenagers. One of five infants is born to a teenage woman. Fewer than one-third of the births to women ages 15 to 19 years are wanted when they occur; therefore, for sexually active teenagers, the primary effort should be on the prevention of unwanted pregnancy.

Infants born to young teenagers have a low birth weight incidence about 1.5 times the national average. The 1977 proportion of premature delivery for mothers under 15 was 24.3 percent, almost 3 times the national average of 8.8 percent (*2*). Thus, prenatal advice and supervision are especially important for teenagers, yet they are less likely than any other age group to start care in early pregnancy. Part of the explanation for this failure may be that 85 percent of the very young mothers are not married (*2*), and therefore they may delay facing the fact of their pregnancy. Counseling and outreach programs are needed to teach them the importance of early prenatal care and to help them deal with their situation.

In addition to these groups of women, other target audiences include spouses and "concerned others," health professionals, health teachers, and school nurses.

Health professionals. Surveys of the American public repeatedly show that physicians are considered the best sources for health information. Yet, the same surveys suggest that physicians do not provide as much information to their patients as their patients want. For any woman already in the health care system, the health professional should be the best source of information regarding her pregnancy because the information will be trusted, relevant, and delivered directly, and it can be reinforced or reexplained during subsequent contacts.

Within the community of health professionals, primary communication efforts are addressed to obstetricians-gynecologists, family planning clinics, family physicians, neighborhood health centers, pediatricians caring for adolescents, nurses, nurse-midwives, school nurses, and pharmacists. Messages aimed at health professionals inform them about the campaign, remind them of the importance of counseling pregnant patients, encourage them to discuss with patients the special care needed, and offer the health professionals materials to give patients that reinforce counseling.

Health and home economics teachers and school nurses. The school is a clear and direct route for transmitting health information to the majority of teenage girls. Appropriate ways of incorporating Healthy Mothers messages (for future mothers) and materials into

health curriculums and other school programs are being investigated by the Public Health Service. Some possible settings are the school lunchroom, the athletic program, and before school and after school clubs.

Spouses and concerned others. The effect of many health decisions on a loved one or the loved one's opinion of a health action may have a significant impact on an individual's decision to take action. A spouse's concern about a pregnant woman's health and the health of a new baby may play a major role in helping form a woman's decision or reinforcing that decision. Therefore, partners are clearly an audience for health information. The extent of their influence and the roles of "significant others," such as parents and friends, are being explored as a part of the market research that underlies strategies for the Healthy Mothers campaign.

Market Research for Campaign Development

The national Healthy Mothers, Healthy Babies campaign is being guided by market research conducted by the Office of the Assistant Secretary for Health. The aim of this research has been to determine the most efficient ways to reach women of childbearing years and, especially, women of low socioeconomic status with prenatal care information. First, secondary data about the following issues were reviewed:

- What sources of health information and credible health spokespersons are relied on by lower socioeconomic groups?
- What are credible sources of, and spokespersons for, nonhealth information among lower socioeconomic groups?
- What are potential points of access to these groups (the media, family and friends, the health provider system)?
- Are the effective strategies for reaching urban women similar to or different from those for rural women? For teenagers compared to mature women? For blacks and Mexican Americans? For monolingual and bilingual women?
- What kinds of health information or health education does the target audience want?
- What factors motivate the target audience to seek health information or health care?

Following this review, a series of 15 focused group interviews were conducted to explore the present knowledge and sources of prenatal care; the utility of materials, information, and services that are available; and possible channels of communication that might be used to motivate these women to participate more fully in the health care system. Because of limited resources, these investigations were confined to Mexican American and black women of childbearing age. In addition, interviews were conducted with health care providers to ascertain their opinions on the information needs of the target population and their assessment of the effectiveness of current health promotion messages and distribution channels (*7*). Finally, an analysis of mass media use by women of childbearing age was undertaken to determine which media channels could be used to reach the target audiences (*8*).

Continuing Healthy Mothers, Healthy Babies activities of the Public Health Service will largely be directed by coalition consensus. Gaps in current prenatal education programs became apparent with the publication of the coalition bibliography. Work to fill these gaps will be undertaken by the Public Health Service along with other coalition members. It is this joint review, planning, production, and promotion that will permit the most efficient use of resources, including the valuable linkages that coalition members maintain within local communities. It is this kind of cooperation that will reinforce public recognition of the importance of good health care during pregnancy. Only with the combined forces of the professional, voluntary, and government coalition members can we begin to reach our 1990 health objective for the nation.

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Healthy Mothers, Healthy Babies Coalition Members

*Accident Prevention Rehabilitation Institute

*Alliance for Perinatal Research and Services

*American Academy of Pediatrics

*American Association for Automotive Medicine

American Association of School Administrators

American College of Nurse-Midwives

*American College of Obstetricians and Gynecologists

*American Dietetic Association

American Home Economics Association

American Hospital Association

*American Nurses Association

American Public Health Association

*American Red Cross

*American Society for Psychoprophylaxis in Obstetrics

Arlington County Department of Human Resources, Preventive Health Unit

Association for the Care of Children's Health

Boston Women's Health Book Collective

*California Urban Indian Health Council, Inc., representing the American Indian Health Care Association

Center for Consumer Health Education

Child Welfare League of America

Future Homemakers of America

Harvard Community Health Plan

Health Care Financing Administration

Health Education Associates, Inc.

Highland General Hospital, Gynecology and Obstetrics Department

Institute for Health Policy Studies

*International Childbirth Education Association, Inc.

Kansas City Health Department

*La Leche League, International

Maine Department of Human Services, Division of Child Health

*March of Dimes

Metro Council of Associations for Retarded Citizens, representing the national association

Military Family Resource Center

Nassau Hospital

National Association of Parents and Professionals for Safe Alternatives for Childbirth

National Association of State Boards of Education

*National Catholic Educational Association, Special Education Department

National Center for Clinical Infant Programs

National Child Nutrition Project

*National Committee for Adoption

*National Congress of Parents and Teachers

*National Council of Catholic Women

*National Medical Association

*National Perinatal Association

*Nurses Association of the American College of Obstetricians and Gynecologists

New Jersey Hospital Association

*Planned Parenthood Federation of America

*Salvation Army

Society for Adolescent Medicine

*Society for Nutrition Education

*U.S. Department of Agriculture

*U.S. Jayceettes

*U.S. Public Health Service, Department of Health and Human Services

University of South Carolina, Department of Health Education, School of Public Health

Urban Institute

*Virginia State Health Department, representing the Association of State and Territorial Health Officers

YWCA National Board

*Steering Committee members.