



TRENDS IN BREASTFEEDING RATES AND LEGISLATIVE AND SOCIAL CHANGES, 1985–1990

This chapter presents the national trends in breastfeeding incidence and duration over the past 5 years, and gives a brief overview of some of the legislative and social changes that have occurred since the first followup report that may have had an impact on breastfeeding rates in the United States.

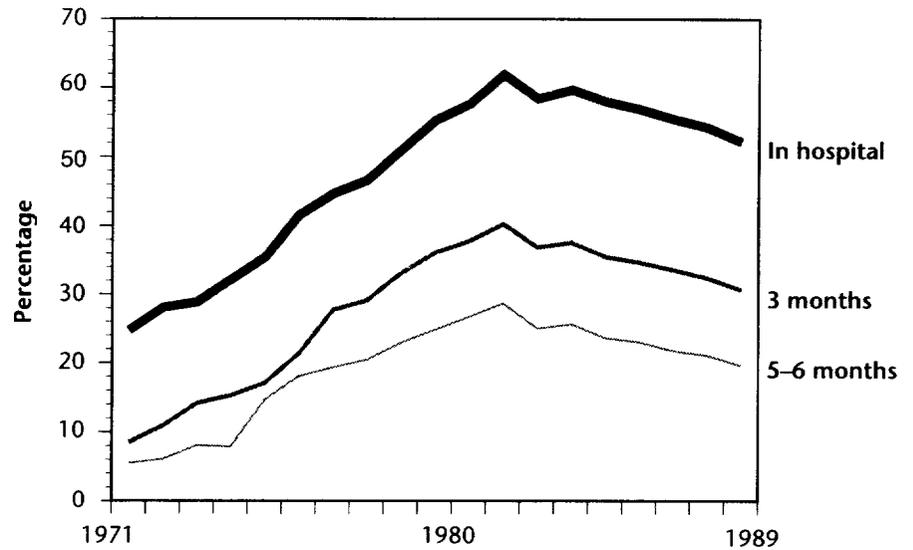
BREASTFEEDING RATES

One of the few available sources of national statistics on breastfeeding incidence and duration in the 1980s is the Ross Laboratories Mothers Survey, which was mailed to a sample of women derived from a list which represented 85 percent of all new mothers in the United States (IOM 1991). Mothers were surveyed when their infants were 6 months of age, and were asked to recall the method of infant feeding in the hospital and during each of the first 6 months of life (Ryan and Martinez 1989). Concern has been expressed that the survey may overestimate breastfeeding rates among black, low-income, and low socioeconomic status women due to sampling bias and response bias (IOM 1991). In addition, data available from the Mothers Survey do not indicate whether a breastfed infant is exclusively or only partially breastfed. In spite of these limitations, the Institute of Medicine's Subcommittee on Nutrition During Lactation feels that the Ross Laboratories data are the best national data currently available (IOM 1991); thus, the following information on breastfeeding rates is based on data collected by Ross Laboratories, as reported in Institute of Medicine and DHHS publications.

Breastfeeding rates in the United States, which declined in the 1950s and 1960s, began rising in the 1970s (IOM 1991) and reached a peak in 1982, with 62.0 percent of mothers initiating breastfeeding, and 30.0 percent continuing to breastfeed at 6 months postpartum (see figure 3) (DHHS 1990a). Since 1982 there has been a continuous decline in both initiation and duration rates. In 1985, 58.0 percent of mothers initiated breastfeeding and 22.1 percent were still breastfeeding at 6 months postpartum. By 1989 rates had fallen to 52.2 percent and 19.6 percent respectively (DHHS 1990a). Thus, between 1985 and 1989, the proportion of mothers who initiated breastfeeding fell by 10.0 percent and the proportion still breastfeeding at 6 months postpartum fell by 11.3 percent.

Rates of breastfeeding vary among geographic, racial, economic, and social groups. Rates are highest among women who are white, married, and/or live in the Western United States, and rates are lowest among women who are black, single, and/or live in the Southeastern United States (IOM 1991, DHHS 1990a).

Figure 3—Percentage of women breastfeeding, 1971–1989, all races



Source: Ross Laboratories, as reported in: Office of Maternal and Child Health, Public Health Service, U.S. Department of Health and Human Services. (1990). *Child Health USA '90*. Washington, DC: U.S. Department of Health and Human Services.

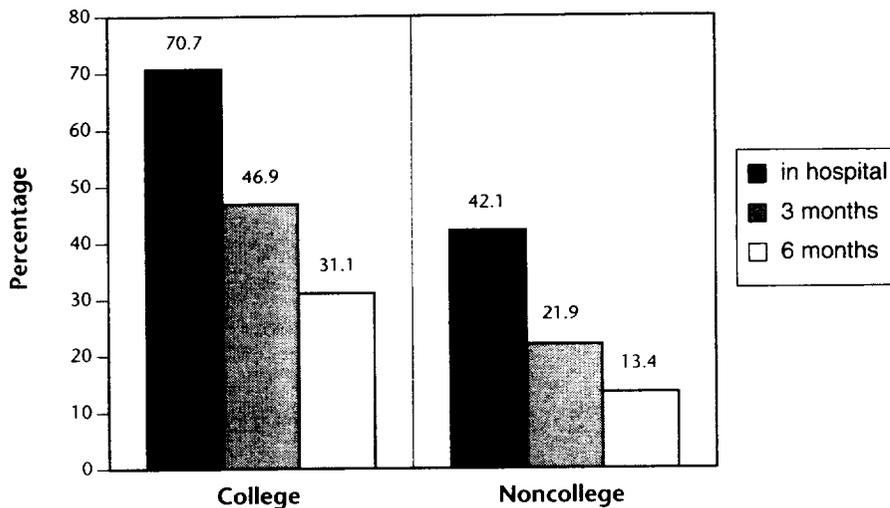
Breastfeeding incidence and duration rates are positively associated with maternal age, maternal education, and family income (IOM 1991) (see figure 4 and table 2).

FEDERAL LEGISLATION AND POLICY

National Health Objectives

In the publications *Healthy People* (DHEW 1979) and *Promoting Health/Preventing Disease: Objectives for the Nation* (DHHS 1980), the U.S. Department of Health and Human Services first set forth a series of national health objectives, to be met by the year 1990. Included in these objectives was a goal for breastfeeding: “By 1990, the proportion of women who breastfeed their babies at hospital discharge should be increased to 75 percent and 35 percent at six months of age” (DHHS 1980, p. 75). These national health objectives have been updated and revised for the 1990s, and are published in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Included in the Maternal and Infant Health priority area is a breastfeeding objective: “To increase to at least 75 percent the proportion of mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old” (DHHS 1990b, p. 111). (This objective is also included in the Nutrition priority area.) Low-income, black, Hispanic, and American Indian/Alaska

Figure 4—Percentage of women breastfeeding, 1989, by education



Source: Ross Laboratories, as reported in: Office of Maternal and Child Health, Public Health Service, U.S. Department of Health and Human Services. (1990). *Child Health USA '90*. Washington, DC: U.S. Department of Health and Human Services.

Native women are mentioned as special target populations (the full text of the objective is reprinted in appendix F, beginning on page 94).

Title V MCH Program

The Maternal and Child Health Bureau (MCHB) has provided continuing leadership in a nationwide initiative to improve breastfeeding rates. The bureau's longstanding policy in support of breastfeeding is illustrated by a number of efforts, leading up to the 1984 Surgeon General's workshop.

In 1976 the Office for Maternal and Child Health (OMCH—a precursor to MCHB), in collaboration with the George Washington University and the March of Dimes Birth Defects Foundation, cosponsored a symposium on human lactation. Following that, OMCH provided funds to the National Academy of Sciences to develop an annotated bibliography on breastfeeding, published in 1978. Because there were few booklets directed to parents-to-be on the subject of breastfeeding in the 1970s, OMCH published *Breastfeeding* in 1979. OMCH also provided leadership in 1983 for organizing a subcommittee on breastfeeding promotion within the Healthy Mothers, Healthy Babies coalition. One of the first projects was the development of a resource packet for professionals to improve breastfeeding promotion at the community level.

OMCH initiated and directed the 1984 Surgeon General's Workshop on Breastfeeding and Human Lactation. Since the workshop, MCHB has intensified its support and program development in breastfeeding promotion and continues to have the lead role in the U.S. Department of Health and

Table 2—Breastfeeding of infants born to ever-married mothers 15–44 years of age, according to selected characteristics of mother, 1981 to 1987^a

	Percentage breastfeeding at all		Percentage breastfeeding at 3 months or more	
	1981–83	1984–87	1981–83	1984–87
Total	58.20	59.00	39.00	33.80
Race				
White	62.00	62.10	41.90	35.70
Black	30.30	30.20	17.70	16.20
Education				
Less than 12 years	30.10	30.70	12.00	16.00
12 years	54.00	50.90	31.90	25.70
13 years or more	71.50	73.30	54.60	45.20
Geographic region				
Northeast	65.70	70.50	51.10	44.50
Northcentral	58.10	53.70	38.50	28.30
South	47.40	47.90	26.90	25.10
West	73.10	77.20	51.70	48.30

Source: National Center for Health Statistics, Centers for Disease Control. *National survey of family growth*. (1988). Hyattsville, MD: National Center for Health Statistics.

Human Services for breastfeeding promotion. Numerous efforts affirm the bureau's continued policy of support for breastfeeding.

Breastfeeding promotion is a priority area for MCH special projects of regional and national significance (SPRANS). MCHB has funded 10 demonstration projects to increase the incidence and duration of breastfeeding among different target populations, particularly low-income and minority groups and working women. A catalog of products developed through these projects has been published. Currently, MCHB is funding 10 Implementation Incentive Grants designed to assist States to incorporate approaches with demonstrated efficacy for increasing the incidence and duration of breastfeeding into permanent systems of care.

Training of health professionals in the management of breastfeeding is another priority. MCHB continuing education training projects at the University of Hawaii and the University of California at San Diego have provided training to health professionals throughout the Nation and in the U.S.-related Pacific Islands. A team consisting of a physician, nurse, and nutritionist from each of the 10 Public Health Service regions received intensive training from the Wellstart/San Diego Lactation Program, and each of

the teams then conducted continuing education conferences in its own region.

Because of a concern that health professionals entering practice need knowledge and skills related to lactation support, a meeting of representatives of boards that accredit educational programs and certify individual practitioners in pediatrics, obstetrics, family medicine, nursing, nurse midwifery, and dietetics was convened. Participants identified a need for a curriculum to assure that new professionals entering practice have expertise in the management and support of lactation and breastfeeding. Under the leadership of the MCHB training program at the University of California at San Diego, a scientifically based lactation management education curriculum has been developed for health professionals and is currently being field tested and revised. A method for preparing and certifying faculty to teach the curriculum will also be recommended.

To complement professional education, MCHB has provided technical assistance and consultation for health professionals in regard to clinical management of lactation in special circumstances related to maternal or infant problems. This is done through the Study Group on Human Lactation at the University of Rochester.

Increasing interest in the interactions of breastfeeding/lactation and maternal and infant health prompted MCHB to request that the Institute of Medicine make this issue a major part of a study of maternal nutrition. The Committee on Nutritional Status During Pregnancy and Lactation was convened in 1987 and provided direction and oversight of this study. The report, *Nutrition During Lactation*, the first comprehensive review of this subject, presents the latest findings on the science of lactation and should serve not only as a useful reference but also as an aid in formulating guidelines for clinical application. The report also highlights gaps in knowledge and recommends future research directions.

In summary, the policy of the Federal MCH program to promote breastfeeding is being implemented through a range of activities and services at the national, State, and local levels.

Legislative Changes in the WIC program

In 1986 the Tennessee Department of Health and Environment was awarded a special projects of regional and national significance (SPRANS) grant from MCHB for a breastfeeding promotion project targeted at low-income women. Based on this SPRANS project's experience with breastfeeding promotion in the USDA's Special Supplemental Food Program for Women, Infants, and Children (WIC), the American Public Health Association awarded a mini grant to the Tennessee SPRANS project director for the formation of the National Committee to Improve Breastfeeding Promotion Strategies in the WIC program. As a result of the National Committee's efforts, eight new provisions were included in the WIC Reauthorization Act of 1989 (Public Law 101-147). This legislation also earmarked \$8 million specifically for breastfeeding promotion. The new regulations resulting from this legislation require State WIC programs to:

1. Develop a plan to promote and support breastfeeding and to coordinate operations with local programs for breastfeeding promotion;
2. Designate a breastfeeding promotion coordinator;
3. Train local agency staff responsible for providing breastfeeding promotion and support;
4. Authorize the use of administrative funds to purchase breastfeeding aids (such as breast pumps and nursing supplementers);
5. Evaluate breastfeeding promotion efforts annually, and include views of participants as part of the evaluation;
6. Develop a policy that creates a positive clinic environment which endorses breastfeeding as the preferred method of infant feeding; and
7. Provide breastfeeding promotion materials in languages other than English (*Federal Register* 1990).

In addition, the new regulations proposed a standard definition of breastfeeding for the WIC program (breastfeeding means “the practice of feeding a mother’s breastmilk to her infant[s] on the average of at least once per day”) and set forth guidelines for breastfeeding promotion and support standards and evaluation (*Federal Register* 1990). The NAWD Committee on Breastfeeding Promotion played a key role in developing guidelines for implementation of the new regulations (see appendix H beginning on page 98).

National Child Care Legislation

In October 1990, the U.S. Congress enacted child care legislation as part of Public Law 101-508, the Omnibus Budget Reconciliation Act of 1990 (U.S. Congress 1991). In accordance with this legislation, regulations addressing health and safety standards for day care facilities are being prepared. These regulations, which will include provisions on nutrition and breastfeeding, are being adapted from standards developed by the American Public Health Association and the American Academy of Pediatrics through a SPRANS grant from the Maternal and Child Health Bureau, DHHS.

SOCIETAL TRENDS

Women’s Labor Force Participation

Women have moved into the labor force in unprecedented numbers in recent decades, and mothers of infants and toddlers have been the fastest growing segment of the labor force in recent years (Bureau of National Affairs 1986). According to the Bureau of Labor Statistics, 66.6% of women with children under age 18, and 54.5% of women with children under age 3, are in the labor force (BLS 1991).

Maternity Benefits

As the labor market has tightened in recent years and women have become an increasingly important part of the labor force, some employers have been paying more attention to family-related benefits such as day care and parental leave as a way to attract and retain employees. Between 1982 and 1988, the number of employers offering systematic child care or parental assistance as part of their benefits package rose from 600 to 3,500 (Hewlett 1990). This is still a fairly small number, however. A 1989 survey conducted by the American Public Health Association's Clearinghouse on Infant Feeding and Maternal Nutrition found that only 150 onsite day care facilities exist in all corporations of the United States (APHA 1989). In addition, it is unclear to what extent such parental assistance and day care benefits include provision of time and facilities for breastfeeding or milk expression during the workday. One study of workplace policies supportive of breastfeeding concluded that there was little evidence that the American workplace had yet responded to the needs of workers with young infants (Moore and Jansa 1987). Nevertheless, business and industry seem to be increasingly aware of the importance of these issues.

Advertising of Infant Formula

Until 1988, infant formula companies in the United States marketed their products to health professionals only and refrained from advertising formula directly to consumers. In 1989, however, both the Carnation Company and Gerber Products began advertising new formulas directly to the public through television commercials and print ads (Oksi 1989), as well as through direct mailings to mothers and by providing coupons on grocery store register receipts targeted to purchases by new mothers. Health professionals have expressed concern that this practice will negatively impact breastfeeding rates and infant health (Huffman 1990, Siler 1990).

In summary, with the exception of the women's labor force participation rate, which has been rising for many years, all of the legislative and social changes described above are fairly recent, and their influence on breastfeeding incidence and duration rates is impossible to assess at this point. Certainly, changes in Federal policy, legislation, and regulations and the advent of infant formula advertising directly to the public have the potential to make major impacts on breastfeeding rates, albeit in opposite directions. The relationship between maternal employment and breastfeeding rates is also difficult to assess, although it has been suggested by some studies that full-time employment may have more of a negative effect on breastfeeding duration rates than on initiation rates (Ryan and Martinez 1989, Gielen et al. 1991). Further study and monitoring of breastfeeding rates will be needed to assess the impact of these changes.



PROFESSIONAL EDUCATION

Recommendation: Improve Professional Education in Human Lactation and Breastfeeding

ACTIVITIES REPORTED

In calling for the improvement of professional education in breastfeeding, the 1984 Surgeon General's Workshop on Breastfeeding and Human Lactation stated: "It is imperative for all health care professionals to receive adequate didactic and clinical training in lactation and breastfeeding and to develop skills in patient education and the management of breastfeeding" (DHHS 1984, p. 67). This recommendation has received considerable attention since the 1985 followup report. Among respondents to our survey, 88 percent (100/113) indicated that they engage in some professional education activities related to breastfeeding. Seventy-seven percent (87/113) provide education to public health clinic staff, 60 percent (68/113) to hospital staff, 47 percent (53/113) to private practitioners, and 11 percent (12/113) to students in schools of medicine, nursing, social work, and public health. Other professionals and paraprofessionals reported to receive training were childbirth educators, lactation counselors, and researchers. Professional education activities include providing education, establishing task forces and committees, issuing policies and regulations, and providing professional consultation and technical assistance.

Education

Continuing education activities for health professionals—via conferences, workshops, seminars, and classes—were the most common type of activity reported. Fifty percent (57/113) of the respondents reported planning or participating in activities related to continuing education in breastfeeding and human lactation. A brief description of selected activities follows.

National Activities

The following programs provide training in breastfeeding and human lactation to health professionals from across the Nation.

The Food and Nutrition Service (FNS), USDA, and the Maternal and Child Health Bureau, DHHS, have jointly supported several continuing education efforts in lactation management for health care providers. In fiscal year 1990, FNS and MCHB supported three regional conferences for WIC and MCH staff and other direct care providers. These conferences were conducted by Wellstart (described below). In fiscal year 1991 FNS funded three additional regional

conferences through grants to WIC State agencies, and it will continue to fund conferences as interest dictates. A total of 585 multidisciplinary health professionals from 31 States participated in the first 3 conferences, which were held in Columbus, Ohio; Atlanta, Georgia; and Rapid City, South Dakota.

The Maternal and Child Health Bureau has continued to support the education of health professionals through grants to graduate training programs in public health nutrition and maternal and child health, and breastfeeding education is an integral part of these programs. Since the Surgeon General's workshop in 1984, the bureau has awarded training grants focused on breastfeeding to the University of Hawaii, the University of California at San Diego/Wellstart, and the University of Rochester. These training projects are described later in this section. For additional information on these projects, see *Breastfeeding: Abstracts of Active Projects FY 1989*, and *Office of Maternal and Child Health Projects FY 1990: An Annotated Listing* (cited in the Community Support Services section of appendix E).

In 1987 the University of California at San Diego and Wellstart (a private, nonprofit organization), with support from a SPRANS training grant from MCHB, undertook a 2-year project to provide lactation management education throughout the United States. The goal of the project was to prepare 10 regional multidisciplinary teams of MCH professionals to function as education, training, and program development specialists in lactation management. These regional resource teams would then provide inservice and continuing education programs for other MCH staff, as well as assist with designing and reviewing existing and future breastfeeding promotion projects and proposals within their home States and regions. The Wellstart project consisted of two phases: The primary phase, in which intensive didactic and clinical education was provided in San Diego for ten regional multidisciplinary teams of MCH professionals; and the secondary phase, in which these regional lactation management teams planned and conducted 10 education seminars for MCH professionals throughout the Nation with the involvement of Wellstart faculty. The 10 jurisdictions which participated in this project are Maine, the Virgin Islands, Maryland, Georgia, Illinois, Oklahoma, Kansas, Montana, California, and Oregon. A newsletter, *Lactation Management: Continuing Education Project Alumni News*, has been distributed to enhance networking and information sharing and to keep regional teams up to date on the progress of the project and participant accomplishments. Several of these teams continue to be quite active and to be utilized for education and training both within and outside their regions. (Wellstart teams are listed in appendix G, see page 96). In addition, Wellstart has developed a proposed Lactation Management Education Curriculum, which is currently being tested and revised. In addition to its domestic activities, Wellstart provides continuing education in breastfeeding promotion, support, and management to health professionals in many countries through funding provided by the United States Agency for International Development (USAID). Training has been provided to health professionals in Asia, Africa, Latin America, and Europe.

The American Academy of Pediatrics held a conference in March 1991 in San Diego that featured a 6-hour workshop on breastfeeding and human

lactation developed and provided by Wellstart faculty. Topics included problem-solving strategies, nutritional risk assessment, jaundice, slow weight gain, insufficient milk syndrome, AIDS, and drugs.

La Leche League International continues to hold its annual Physician's Seminars and Lactation Consultant Workshops. The Physician's Seminar, a 2-day intensive seminar which covers the latest breastfeeding research and features a faculty of experts in the fields of lactation and family health care, is accredited by the American Medical Association, the American College of Obstetricians and Gynecologists, the American Academy of Pediatrics, and the American Academy of Family Practitioners. The Lactation Consultant Workshop is an advanced course for lactation specialists on current breastfeeding information, skills, and tools they need to assist breastfeeding women with prenatal and postnatal situations. Registration at the 1990 Physician's Seminar and Lactation Consultant Workshop was up significantly from 1989 registration rates.

The University of California at Los Angeles Extension's Division of Nursing offers two breastfeeding courses. The Lactation Educator Training Program is intended to prepare health professionals and other interested people to be lactation educators either in private practice or as part of their clinical employment. Emphasis is placed on maximizing professional use of scientific data and understanding problems of clinical management, and the course includes clinical consultation and community observation as well as written work and lectures. The Lactation Consultant Training Program, which builds on the Lactation Educator Training Program, prepares health professionals to serve as lactation consultants. The didactic portion of this program includes four 2-1/2-day sessions spaced over 8 months and held at UCLA. Additional requirements are an apprenticeship with a faculty member in Los Angeles and a preceptorship and community observation in the student's local area.

The Lactation Program at Presbyterian-St. Luke's Medical Center in Denver, Colorado, provides a variety of professional education services, including a 1- to 2-week internship program on breastfeeding management for nurses, an annual conference for health professionals, and a telephone consultation service.

The Maternal and Infant Care Project at the Grady Memorial Hospital in Atlanta, Georgia (a Wellstart regional resource team), offers a 1-week lactation management practicum designed to give health professionals, particularly WIC program staff, the skills needed to plan and develop a breastfeeding program. The practicum includes lectures as well as clinical experience in the delivery room, on maternity floors, and at a breastfeeding clinic.

State and Local Activities

Most of the reported education activities occurred at the State level, and, as the examples outlined below demonstrate, they ranged from incorporating information about breastfeeding into existing educational activities to developing special projects devoted solely to the improvement of professional education in breastfeeding and human lactation.

During 1990, the Hawaii Department of Health implemented a breastfeeding training program in which seven teams were trained in breastfeeding management and promotion, and training materials were developed and adapted. The teams and materials were then utilized to provide inservice training and technical assistance to clinic prenatal care providers, hospital staff, and private care providers. The project also provided a breastfeeding library for use by the teams, as well as a breastfeeding information, referral, and consultation service.

The University of Hawaii School of Public Health, through a SPRANS grant from MCHB, conducted a continuing education project from 1987 to 1990 for health personnel in the U.S.-related Pacific Islands. Three physician-nurse resource teams participated in intensive training at the Wellstart San Diego Lactation Program. These resource teams then developed breastfeeding promotion and training plans, and participated with MCH and Wellstart faculty in subsequent training of teams from each of the nine U.S.-related Pacific Island jurisdictions.

The Kentucky Department of Health Services, through a SPRANS grant from MCHB, has provided inservice training on breastfeeding promotion and lactation management to over 1,000 health professionals throughout central and eastern Kentucky using the Best Start training program. Breastfeeding resource manuals have been distributed to every public health agency in the State. Resolutions supporting health professionals' active education and promotion of breastfeeding submitted on behalf of Kentucky's Best Start program were passed by the Kentucky Medical Association.

The New Mexico Department of Health administered a project to make appropriate, consistent lactation training available to health care providers in New Mexico. Activities included training the nutrition education coordinator of the WIC program, developing an 8-hour curriculum, and holding eight regional training conferences throughout the State.

The North Carolina WIC program awarded approximately 28 scholarships to public health practitioners throughout North Carolina to attend the UCLA Breastfeeding Educator Program, the Grady Hospital practicum in lactation management, and/or the Wesley Long Community Hospital Breastfeeding Educator Program.

The Triad Lactation Center at Wesley Long Community Hospital in Greensboro, North Carolina, sponsors a 3-day intensive program designed to provide education and skills training for health professionals who work with mothers and infants in a variety of health care settings. Maternal-child nurses, physicians, nutritionists, WIC staff, and childbirth educators are invited to attend these programs, which are offered five times each year. The curriculum includes 2 days of classroom workshops on breastfeeding management and techniques and 1 clinical observation day at the hospital.

The Division of Maternal and Child Health of the Ohio Department of Health incorporates breastfeeding into all of its continuing education activities. These activities include an annual 2-day conference for staff from local health clinics at which they share information on programs and ideas; a State-level conference for clinic nutrition staff, usually held every year; and periodic small

regional workshops for local clinic staff on topics of current interest.

The Oklahoma State Department of Health, the Oklahoma Healthy Mothers, Healthy Babies coalition, and the PHS Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas) Wellstart Resource Team for Lactation Management Education sponsored a conference entitled “Breast Investment: Networking for Successful Lactation Management and Support in Region VI” in March 1989. This conference was intended to expand the knowledge and skills of MCH Title V staff in the five-State region and promote community awareness and support for lactation.

The Texas Department of Health, in conjunction with the Austin Healthy Mothers, Healthy Babies coalition and the local March of Dimes chapter, sponsored a conference entitled “Breastfeeding Update for Physicians” in September 1989. The aim of the conference was to provide physicians with the current scientific basis for promoting breastfeeding and with the skills necessary to apply the science in clinical practice.

Texas Children’s Hospital—in conjunction with Baylor College of Medicine, Ben Taub Hospital, USDA, and the Children’s Nutrition Research Center—provides a 2-hour session on breastfeeding for interns during their neonatology rotations at a county hospital. In addition, a 2-hour lecture/demonstration on lactation is offered to Baylor medical students in the nutrition elective during their first year of medical school, and 2 hours of lecture/demonstration are given to all third-year medical students. Texas Children’s Hospital also provides a series of applied nutrition conferences for physicians, nurses, dietitians, and lactation consultants working with expectant and new mothers. These seminars feature clinical applications of research in lactation and in infant and maternal nutrition.

The West Virginia WIC program, in cooperation with the Family Resource Center, Charleston Area Medical Center, is sponsoring a 2-day conference on breastfeeding using the Wellstart San Diego Lactation Program staff. This program is partially funded by a SPRANS grant from MCHB and by the West Virginia Bureau of Public Health, Division of Nutrition Services, WIC program.

Task Forces and Committees

Task forces and committees provide a means to bring together individuals as a group for the purpose of accomplishing a common objective. Several organizations at the national, State, and local levels have utilized breastfeeding task forces or committees to work toward improving professional education, along with other activities to promote breastfeeding. Respondents who reported task force or committee activities related to professional education as an objective are listed below. Task forces and committees involved in activities other than professional education are listed in the fourth chapter, Support in the Health Care System (see page 27).

National Activities

The goal of the Healthy Mothers, Healthy Babies Subcommittee on Breastfeeding Promotion is to encourage collaborative efforts involving the

public and private sectors in the promotion of breastfeeding and in working toward achieving the breastfeeding objective for the Nation. The objectives of this collaboration have been to assess and monitor breastfeeding promotion efforts, to exchange information, to share production of materials, and to disseminate information and materials. The target audiences have been health providers, hospitals, pregnant and lactating women and their families, and the general public. This subcommittee has approximately 40 members with representation from a variety of Federal agencies and professional organizations, as well as state and local level organizations. Among many other activities, the subcommittee has developed a breastfeeding promotion packet which was disseminated to 4,000 leaders in State health agencies and professional organizations.

The Committee on Nutrition of the American Academy of Pediatrics is an appointed committee which studies policies and practices related to pediatric nutrition and makes recommendations based on its findings. The committee has produced policy statements on breastfeeding and has disseminated information on breastfeeding to health professionals. Its *Pediatric Nutrition Handbook* includes a chapter on breastfeeding.

State and Local Activities

Colorado has formed a statewide Colorado Breastfeeding Task Force under the leadership of the Colorado Department of Health. The group is comprised of approximately 35 interdisciplinary volunteers, including physicians, nurses, dietitians, lactation consultants, midwives, and members of breastfeeding mother-to-mother support groups. Activities of the task force include providing breastfeeding education to hospital staff, community health professionals, obstetricians, family practitioners, pediatricians, and residents statewide. Day care providers and employees will also receive training.

In 1987, the Illinois Department of Public Health established a statewide Breastfeeding Promotion Task Force. One objective of the task force has been to develop and disseminate professional education materials on breastfeeding. Activities have included presentations promoting breastfeeding at annual State public health-related meetings, statewide breastfeeding promotion workshops and seminars, lectures at medical and nursing schools, revision of the State's *Lactation Counselor's Manual*, and distribution of a newsletter.

In February 1990, the Maine Department of Human Services participated in forming a statewide task force on breastfeeding, which includes representatives from hospitals, physicians' offices, public health programs, and lay support groups. The task force plans to produce a newsletter, compile a resource list for health professionals, and provide training to a variety of health professionals, including nurses, WIC staff, and childbirth educators.

The Montgomery County (Maryland) Breastfeeding Coalition, among other activities, provides continuing education for health professionals. Participants in this broad-based coalition include representatives from health maintenance organizations, five local hospitals, the local WIC program and health department, and several private, nonprofit organizations, as well as individual

health professionals such as childbirth educators and nutritionists from the community.

The Model Standards Breastfeeding Task Force in St. Louis, Missouri, is planning a project that will provide education on breastfeeding to maternal and infant nurses and ancillary hospital staff at three area hospitals with a high WIC client population. An evaluation component will assess attitudinal and behavioral changes in the hospital staff, as well as the impact of the education program on WIC breastfeeding mothers discharged from the three hospitals.

Policies and Regulations

Both national and State level agencies have issued policies and regulations designed to increase the incidence and duration of breastfeeding through the improvement of professional education. Respondents who reported enacting or issuing policies or regulations which specifically address professional education are described below

One requirement of the WIC reauthorization legislation is that State WIC agencies must provide training in breastfeeding promotion and support to staff members of local agencies who are responsible for counseling WIC participants. During May and June of 1990, the Center on Budget and Policy Priorities contacted WIC directors, nutrition coordinators, and breastfeeding promotion coordinators from all the States and the District of Columbia in order to determine each State's plan for promoting breastfeeding within the WIC program. They reported that 33 States have conducted or are planning statewide workshops, conferences, or training sessions in order to meet the law's training requirement.

Policy and position statements related to breastfeeding and improvement of professional education developed by many professional organizations remain in effect. These include issuances from the American Academy of Pediatrics, the National Association of Pediatric Nurse Associates and Practitioners, and the American Public Health Association. In addition, the American Dietetic Association published a position paper addressing breastfeeding and professional education in 1986, and the National Association of WIC Directors issued a position paper in 1989 on breastfeeding promotion in the WIC program. (NAWD's position paper became the basis for NAWD's *Guidelines for Breastfeeding Promotion in the WIC Program*, which is reprinted in appendix H). Citations for these documents can be found in the Policy Statements section of appendix E.

Several State agencies (the Pennsylvania Department of Health, the Oklahoma Department of Health, and the Illinois Department of Health) have issued position papers or policy statements that support breastfeeding promotion and call for improvement in professional education.

Professional Consultation and Technical Assistance

In order to assist health care providers in improving their skills and knowledge in breastfeeding management, some agencies have developed technical assistance and consultation services related to professional education.

Some of these services, at the national, State, and local levels, are described below.

National Activities

The Maternal and Child Health Bureau, DHHS, provides technical assistance and professional education related to breastfeeding and human lactation to State MCH and nutrition staff and to SPRANS grantees through its nutrition consultants in the Central MCHB Office and in the 10 PHS Regional Offices. These MCHB nutrition consultants assess national and regional needs for professional education and work with educational institutions and other agencies which respond to this need; help mobilize personnel and funding resources for workshops and seminars; participate in national and regional meetings for professional health personnel to promote breastfeeding; and advise and assist with the development and dissemination of technical assistance materials related to breastfeeding.

The Nutrition and Technical Service Division, Food and Nutrition Service (FNS), USDA, provides technical assistance to its WIC and child nutrition programs. FNS has produced and reprinted technical assistance materials in order to help State and local agency staff promote breastfeeding (these materials are listed in the Support Services in the Community section of appendix E, beginning on page 87).

The Food and Nutrition Information Center (FNIC) at the USDA's National Agricultural Library responds to inquiries and provides information, publications, and audiovisual materials on many nutrition-related topics, including breastfeeding. FNIC provides unlimited free service to the staff of Federal and State Government agencies; school district and elementary and secondary school personnel; Nutrition Education and Training Programs; the Special Supplemental Food Program for Women, Infants, and Children; the Commodity Supplemental Food Program; food distribution programs on Indian reservations; child care food programs; U.S. libraries; and other organizations receiving USDA funds or commodities.

The Subcommittee on Nutrition During Lactation of the Committee on Nutritional Status During Pregnancy and Lactation, Food and Nutrition Board, Institute of Medicine, National Academy of Sciences, is an expert subcommittee charged with evaluating and documenting current scientific evidence on lactation and proposing nutrition recommendations for lactating women. This expert committee, supported by a SPRANS grant from MCHB, issued the report *Nutrition During Lactation* in February 1991. This report examines methods for assessing the nutritional status of lactating women; discusses the composition of human milk; explores how maternal health can be influenced by lactation; reviews ways to meet the nutrient needs of lactating women; reports links between the nutrition of the mother and the nutrition and growth of the nursing infant; and presents the subcommittee's recommendations and conclusions. The purpose of this report is to provide a state-of-the-art reference for health care providers to aid in formulating guidelines for clinical applications in the United States. Dissemination of

findings is through presentations by subcommittee members to professional meetings; nationwide distribution of this report and a summary of this report through the National Maternal and Child Health Clearinghouse; news releases; and making the report widely available as an NAS publication.

The National Center for Education in Maternal and Child Health is a national resource center (funded through a cooperative agreement with MCHB) which provides information services, educational materials, and technical assistance to organizations, agencies, and individuals with maternal and child health interests. The reference collection contains Title V and other maternal and child health programmatic materials (including breastfeeding materials) not readily available elsewhere. NCEMCH has produced and distributed several publications on Title V breastfeeding programs, including *Breastfeeding: Abstracts of Active Projects FY 1989*, and *Breastfeeding: Catalog of Products*.

The Lactation Study Center at the University of Rochester Medical Center, funded through a SPRANS training grant from MCHB, maintains a data base offering physicians free information on issues critical to the success of lactation and breastfeeding, such as medications and substances. The bibliographic data bank, which is constantly updated, provides immediate access to the latest published references and may be searched by author or subject. Entries are regularly updated and include clinically applicable comments and literature references.

The American Public Health Association's Clearinghouse on Infant Feeding and Maternal Nutrition, funded by USAID, was established in 1979 to support efforts in developing countries to improve the nutrition and health of women and children. The clearinghouse has developed a library of more than 9,000 books, documents, and educational materials reflecting information needs in the field concerning breastfeeding promotion, weaning practices, and maternal health. The data base also contains materials on a number of related subjects including legislation and policies, education, food production, training, and primary health care. The services and resources of the clearinghouse are mainly geared toward issues relevant to developing countries.

La Leche League International operates a Center for Breastfeeding Information which provides health professionals, researchers, breastfeeding counselors, and medical students with a reliable source for breastfeeding information through its collection of professional research articles on breastfeeding.

Best Start, a program promoting breastfeeding among economically disadvantaged women in the United States, has established the Best Start National Resource Center. The center serves as a clearinghouse for breastfeeding-related materials, including patient education materials and professional and peer counselor training materials and curricula. The center also provides technical assistance and training on breastfeeding promotion techniques, program development strategies, program evaluation, social marketing research, and materials development and testing (with an emphasis on materials for low-literacy and minority populations). The center also has a toll-free phone line for inquiries from health professionals.

State and Local Activities

The Arkansas Best Start project, with support from a SPRANS grant, has established a Breastfeeding Promotion Center that provides technical assistance to health professionals. Current information on medications and breastfeeding is maintained at the center through a cooperative agreement with a clinical pharmacologist.

The Children’s Nutrition Research Center in Texas—in cooperation with Baylor College of Medicine, Texas Children’s Hospital, St. Luke’s Episcopal Hospital, Methodist Hospital, and the MacGregor Clinics—has been providing a telephone counseling service for health professionals on breastfeeding management problems in the Houston area for the last 8 years.

BARRIERS TO BREASTFEEDING

Of the 84 respondents who listed barriers to breastfeeding, 51 percent (43/84) mentioned professional education issues when discussing barriers that keep women from beginning or continuing to breastfeed (see table 3).

Table 3—Professional education related barriers to initiation and continuation of breastfeeding

Barriers	Percent of Respondents (N=84)
Lack of support or encouragement from physicians, nurses, hospital staff, or other health professionals	32% (27)
Inaccurate or inappropriate advice from physicians and other health care personnel	17% (14)
General lack of education among health professionals about breastfeeding and lactation management	10% (8)
Lack of access of women to health professionals trained in lactation management	5% (4)

SUGGESTIONS FOR FUTURE ACTIVITIES

Forty-three percent (49/113) of respondents mentioned professional education in their recommendations for future breastfeeding promotion efforts. Suggestions included the following:

- Continue and expand continuing breastfeeding and lactation management education of health care providers (physicians, nurses, nutritionists, public health workers, day care workers, hospital administrators, and the like). Education should include information on the importance of breastfeeding for infant and maternal health in order to overcome the negative attitudes about or indifference to breastfeeding among some health professionals.
- Include questions on breastfeeding and human lactation on national boards and other credentialing examinations.
- Expand preservice breastfeeding training in schools of medicine, nursing, dietetics, public health, and other related fields.



PUBLIC EDUCATION

Recommendation:
Develop public education and promotional efforts

ACTIVITIES REPORTED

The 1984 Surgeon General's workshop cited the lack of information available to the public about breastfeeding, as well as the sometimes incorrect or confusing nature of the available information, as reasons for recommending public education efforts. This recommendation has received considerable attention from our respondents: 58 percent (66/113) indicated that they engage in some public education activities related to breastfeeding. Public education activities reported include implementing programs for hard-to-reach populations, conducting media campaigns and using social marketing approaches, and developing school-based curricula.

Hard-to-Reach Populations

The breastfeeding promotion efforts of many of the respondents focused in whole or in part on various groups that could be designated as hard to reach: 42 percent (48/113) of respondents reported serving hard-to-reach populations. The population most frequently targeted (by 24 percent [27/113] of respondents) was low-income women (women participating in the WIC program or other low-income women). Some other hard-to-reach populations include adolescents, migrant workers, and minorities (see table 4). (The hard-to-reach populations served by 10 percent [11/113] of respondents were not specified). Examples of some of the programs for hard-to-reach populations conducted at Federal, State, and local levels are described below.

National Initiatives

The Maternal and Child Health Bureau, DHHS, has designated breastfeeding promotion for hard-to-reach populations as a priority area for special projects of regional and national significance. Two of these projects, one in North Carolina (targeted toward migrants) and one in South Carolina (targeted toward low-income women and black women), are described later in this section. Other SPRANS-funded breastfeeding projects are targeted toward low-income women and Hispanic women.

The Indian Health Service (IHS), DHHS, reports that breastfeeding promotion is an integral part of all of its programs, including public education. In collaboration with USDA, MCHB, and Wellstart, IHS helped organize and host a conference in September 1990 in Rapid City, South Dakota, which focused on the promotion of breastfeeding among the American Indian population.

Table 4—Programs targeted to specific populations

Population	Respondent
<i>Minorities (unspecified)</i>	La Leche League International Franklin Park, IL Missouri Department of Health Jefferson City, MO New Jersey Department of Health Trenton, NJ
<i>Blacks</i>	Pennsylvania Department of Health Harrisburg, PA
<i>American Indians</i>	Indian Health Service Rockville, MD North Dakota Health Department Bismark, ND South Dakota Health Department Rapid City, SD
<i>Non-English speakers</i>	Nevada WIC Program Carson City, NV University of Illinois School of Public Health Chicago, IL
<i>Bilingual/bicultural groups</i>	Massachusetts Department of Public Health Boston, MA Rhode Island WIC Program Providence, RI
<i>Adolescents</i>	Pennsylvania Department of Health Harrisburg, PA Massachusetts Department of Public Health Boston, MA Pueblo Community Health Center Pueblo, CO
<i>Low-literacy groups</i>	Nevada WIC Program Carson City, NV
<i>Homeless families</i>	New Hampshire Department of Health and Human Services Concord, NH
<i>Migrant workers</i>	University of North Carolina School of Public Health Chapel Hill, NC Montana Migrant Council Billings, MT

State and Local Initiatives

The Division of Nutritional Sciences at Cornell University, through the Expanded Food and Nutrition Education Program (EFNEP), provides information on nutrition to low-income families throughout New York State. Program participants who are pregnant learn about both breastfeeding and bottlefeeding. For women who decide to breastfeed, additional information is provided on the composition of breastmilk, the basic physiology of lactation, and potential problems and how to prevent and treat them. A set of educational pamphlets, *Basics of Breastfeeding: A Mother's Guide*, available in both Spanish and English, has been developed for use with this population.

The University of North Carolina's School of Public Health implemented a SPRANS project which included promoting breastfeeding at a migrant health center in North Carolina. Strategies for promoting breastfeeding as a feeding method particularly suited to the migrant lifestyle were identified and implemented. Layettes donated by local churches were used to encourage attendance of prenatal patients at a class on breastfeeding. Women planning to breastfeed were given cards to alert the delivering hospital of their intention, and hospitals were provided with bilingual flipcharts to use in communicating with non-English-speaking patients.

The goal of the South Carolina Department of Health and Environmental Control SPRANS project, A Statewide Action Plan to Promote Breastfeeding, was to increase the number of low-income women and black women who breastfeed. Information provided by focus groups was used to help develop messages and promotional materials which would dispel mistaken beliefs about breastfeeding among low-income women and black women. Posters were developed which illustrate the cost savings of breastfeeding and show that breastfeeding in public can be done modestly, without exposing the breast.

Media Campaigns and Social Marketing Approaches

Effective use of the media—print, radio, and television—has become increasingly important in breastfeeding promotion efforts. Respondents reported working to implement breastfeeding promotion media campaigns, attempting to influence portrayals of infant feeding in popular films and television shows, and responding to recent moves by formula companies to market infant formula directly to the public.

National Initiatives

At the suggestion of the American Academy of Pediatrics, the U.S. Department of Agriculture's Food and Nutrition Service hosted a meeting in June 1990 to explore how government and private health interests, including professional and nonprofit organizations, could work together to promote breastfeeding. A major recommendation from this meeting was that USDA, in coordination with the participating organizations, sponsor a national campaign to promote the concept that breastfeeding is the optimum choice of infant feeding for both mother and baby. This Breastfeeding Promotion

Consortium met again in February 1991 and reviewed a USDA proposal for the design and implementation of such a breastfeeding promotion campaign. Plans are also under way by the consortium to conduct a secondary campaign directed toward health care providers, policymakers, employers, and other community groups.

La Leche League International (LLLI) headquarters staff monitor and provide timely responses to misinformation that appears in the media. LLLI also advertises in magazines targeted at new parents.

State and Local Initiatives

The Best Start Program is a joint effort by public health officials in PHS Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee) to implement a comprehensive campaign of breastfeeding promotion based on the techniques of social marketing. The goal is to bring vital information on breastfeeding to young, less privileged mothers in the Southeast. In 1987 and 1988, consumer research was conducted in Florida, Georgia, Kentucky, North Carolina, South Carolina, and Tennessee. Research results were used to develop general program strategies and to identify educational materials needed to reach economically disadvantaged women, particularly those participating in the WIC program. Materials—including TV and radio spots, a motivational videotape for patients, a training videotape, a curriculum on use of the materials for public health professionals, and motivational education materials for mothers—were developed to be utilized in a media campaign, and the eight Southeastern States have now begun to implement this campaign. The Kentucky Department of Human Resources, for example, has funded four local promotion projects based on Best Start materials and approaches, and Best Start television public service announcements are being aired throughout central and eastern Kentucky. Tennessee, Arkansas, West Virginia, Louisiana, North Carolina, and South Carolina, as well as numerous States outside the Southeastern region, have begun utilizing the Best Start materials in their breastfeeding promotion activities.

The Colorado Breastfeeding Task Force worked to have the Governor proclaim an annual Breastfeeding Awareness Week in May. Articles in two major newspapers, spots on TV and radio stations, and a conference for over 200 health professionals were part of the 1991 effort.

The overall goal of the Indiana State Board of Health's SPRANS breastfeeding promotion program was to improve the health of infants in the State. One activity conducted was the initiation of a breastfeeding public awareness campaign. The materials used were developed by a marketing agency and included four television public service announcements, three posters, a brochure, and a promotional video. The slogan for the campaign was "Breastfeeding . . . for all the right reasons." The issues on which the campaign focused were the health benefits, cost savings, and convenience of breastfeeding, and the mother's ability to return to prepregnancy shape more quickly. To kick off the campaign, activities such as public forums, displays at

shopping malls, and television appearances were held across the State. Newspaper articles appeared in numerous cities. Specialty items including buttons, balloons, bumper stickers, and banners boasted the campaign's slogan and toll-free information phone number. Public opinion surveys were completed at the beginning and end of the project in an effort to assess the public awareness campaign. The campaign's methods and materials have been used as a model by other States.

The Oregon WIC Coordinators Association (OWCA), in conjunction with the Oregon WIC program, requested and was granted a governor's proclamation to designate August 1989 as Breastfeeding Promotion Month. OWCA received endorsements for the proclamation from a large array of organizations, including the Oregon Chapter of Obstetricians and Gynecologists, the Oregon Public Health Association, the Oregon Dietetic Association, and the Oregon Nurse-Midwife Association. In support of this campaign, the Oregon WIC program adapted promotional materials from the Indiana State Board of Health's breastfeeding promotion project (described above). Posters were sent to local WIC and maternal and child health programs, physicians, and interested organizations; public service announcements were sent to television stations.

In 1990, the Governor of Tennessee proclaimed March to be Nutrition Month, with special emphasis on breastfeeding promotion. This proclamation coincided with the launching of the Tennessee Best Start breastfeeding promotion campaign.

The Texas Department of Health instituted a letter writing campaign to change the way television portrays infant feeding so that breastfeeding is depicted as the norm. When a pregnant woman or infant is featured on a television program, a letter is written to the producers of the show encouraging them to introduce positive references to breastfeeding. Letters are also written if the show mentioned breastfeeding specifically, expressing support if the reference was positive and concern if the reference was negative or if bottle feeding was depicted as the norm. In addition, breastfeeding media campaign television monitoring forms were distributed across the United States, and letters have been written to actors and actresses who have either recently had a child, who play a character who has recently had a child, or who are known to be supportive of breastfeeding. The New Mexico Health and Environment Department reported that their Breastfeeding Task Force has joined Texas' letter writing campaign.

Response to Direct Consumer Advertising of Infant Formula

As discussed in the first chapter, two infant formula companies have recently begun advertising their products directly to consumers via television commercials and print advertisements, and health professionals have expressed concern that this practice will negatively affect breastfeeding rates and infant health. Many professional health organizations have issued policy statements or resolutions condemning the direct advertising of infant formula to the public, including: the American Medical Association, the American Dietetic

Association, the American Academy of Pediatrics, the American Academy of Family Physicians, the Ambulatory Pediatric Association, and the Federation of Pediatric Organizations.

In June 1989, the Federation of Pediatric Organizations, composed of seven national pediatric groups—the Ambulatory Pediatric Association, American Academy of Pediatrics, the American Board of Pediatrics, the American Pediatric Society, the Association of Medical School Pediatric Department Chairmen, the Association of Pediatric Program Directors, and the Society for Pediatric Research—sent a letter to all of the major infant formula companies expressing concern about the effects of initiatives to advertise infant formulas directly to consumers, and announcing endorsement of the American Academy of Pediatrics's 1988 policy statement in support of breastfeeding and in opposition to direct marketing of infant formulas to the lay public.

Also in June 1989, MCHB sent a packet of information on the direct marketing of infant formula to all State MCH directors. The packet included a statement by the Surgeon General before the Subcommittee on Nutrition of the Senate Committee on Agriculture, Nutrition, and Forestry (reprinted as appendix A, on page 57) on the importance of breastfeeding, and a copy of the letter sent to formula companies by the Federation of Pediatric Organizations.

In September 1989, the executive board of the American Academy of Pediatrics approved a new policy statement opposing direct advertising of infant formula to the public. The policy states: "If an infant formula company advertises its formula directly to the public, then the Academy will, as soon as practical but in no event later than a year from the date on which the direct advertising commences, terminate support of the Academy programs by that company If a company does not currently provide support for Academy programs, then the Academy will not solicit or accept funding from such company for any ongoing or future programs." This policy was published in *Pediatrics* and received national news coverage.

In March 1991 the U.S. Senate Committee on Agriculture, Nutrition, and Forestry and the Subcommittee on Antitrust, Monopolies, and Business Rights held a joint hearing on the direct consumer advertising of infant formula. The American Academy of Pediatrics, the Center on Budget and Policy Priorities, Dr. Ruth Lawrence of the University of Rochester Medical Center, and others presented testimony on the potential negative impact this practice can have on breastfeeding rates.

School-Based Curricula

Integration of breastfeeding information into existing secondary school curricula and educational programs, one of the strategies suggested at the 1984 workshop, was reported by a small number of respondents: 7 percent (8/113) reported the development of school-based curricula as a method of public education and promotion of breastfeeding. Two respondents described their programs.

The Colorado Department of Health, through its new SPRANS breastfeeding promotion project, plans to implement a previously developed high school curriculum on breastfeeding in five schools in the State.

The Community Nutrition Resource Center (formerly Renewable Technologies, Inc.) in Montana received a SPRANS grant for the project A Model Approach to Development of Breastfeeding as a Subspecialty Integrated with Private Sector Maternal/Infant Health Care. As part of this project, several in-class presentations on breastfeeding were made to second, fourth, and fifth graders. In addition, information on breastfeeding may be incorporated into the health education curriculum the State of Montana is currently developing.

BARRIERS TO BREASTFEEDING

Of respondents listing barriers to breastfeeding, 44 percent (37/84) mentioned barriers to breastfeeding which are related to public education (see table 5).

Table 5—Public education related barriers to initiation and continuation of breastfeeding

Barriers	Percentage of Respondents (N=84)
<i>Women's attitudes</i>	
Modesty, embarrassment	42% (35)
Interference/incompatibility with lifestyle; loss of independence	37% (31)
Lack of confidence in ability to breastfeed	23% (19)
Concern that supply of milk is inadequate for baby	11% (9)
Lack of desire, motivation	10% (8)
Concern with figure	7% (6)
Had problem breastfeeding a previous baby	6% (5)
Have negative misconceptions about breastfeeding	6% (5)
<i>Societal attitudes</i>	
Breastfeeding is not accepted as the norm; general lack of societal support for breastfeeding	35% (29)