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SECOND FOLLOWUP REPORT:  
THE SURGEON GENERAL'S WORKSHOP ON  
**BREASTFEEDING &  
HUMAN LACTATION**



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## PREFACE

The 1984 Surgeon General's Workshop on Breastfeeding and Human Lactation was a time of firsts for this Nation in promoting breastfeeding. It was the first time a national leader called attention to this method of nurturing infants, and it was the first time a national meeting focused exclusively on supporting breastfeeding. In addition, the breastfeeding strategies developed at the workshop are still used today as we move toward the breastfeeding objectives as published in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*.

Two publications resulted from the workshop: *The Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation* (1984) and the *Followup Report: Surgeon General's Workshop on Breastfeeding and Human Lactation* (1985). The 1984 report contains the proceedings, recommendations, and strategies generated at the workshop; the followup report describes breastfeeding promotion activities to implement workshop recommendations in the year following the conference. Both of these publications, currently out of print, have become valuable resources.

Now this third publication, the *Second Followup Report: The Surgeon General's Workshop on Breastfeeding and Human Lactation*, has been developed to update breastfeeding promotion activities since 1985. It is hoped that all who read this second followup report will discover new inspiration.

To obtain the information for the report, questionnaires were sent to State health agencies, voluntary and professional organizations, and educational institutions that have an interest in maternal and child health. Over one hundred organizations responded with information on activities such as: legislation, policies, guidelines, meetings, publications, media campaigns, service delivery models, support systems, training, and research related to the six major recommendation areas identified at the Surgeon General's workshop.

We hope this new publication will help tear down many of the barriers that must be overcome in promoting informed decisions by more women to breastfeed their infants. We applaud these new efforts to improve the health of mothers and children.

VINCE L. HUTCHINS, M.D.  
*Director, Maternal and Child Health Bureau*



## ACKNOWLEDGMENTS

The *Second Followup Report: Surgeon General's Workshop on Breastfeeding and Human Lactation* represents the efforts of many individuals. It was initiated and funded by the Maternal and Child Health Bureau, U.S. Department of Health and Human Services, through the efforts of Elizabeth Brannon, Director of Maternal and Child Health Training, who provided invaluable leadership, expertise, and assistance throughout the duration of the project. Our deepest gratitude also goes to Mary C. Egan for her wisdom, guidance, and helpful comments throughout the preparation of this report. We would also like to extend a warm thank you to Carolyn Sharbaugh for her continuous support and helpful comments at every phase of this project.

Also greatly appreciated are the efforts and expertise of Carol Bryant, Darla Danford, Kathy Davis, Kathy Dugas, Sandra Huffman, Minda Lazarov, Brenda Lisi, Joan McGill, and Janine Schooley, who reviewed and critiqued the first draft of the report, providing generous input and helpful suggestions. Most importantly, we thank the respondents to our questionnaire, who provided us with the program descriptions which constitute the body of this report.

Finally, we would like to acknowledge Rochelle Mayer, Director of the National Center for Education in Maternal and Child Health, for supporting our efforts to complete this project, as well as NCEMCH's publication staff, particularly Chris Rigaux and Robin Landis.



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## LIST OF ACRONYMS

- BLS**—Bureau of Labor Statistics
- BNA**—Bureau of National Affairs
- CDC**—Centers for Disease Control
- CSFP**—Commodity Supplemental Food Program
- DHHS**—United States Department of Health and Human Services
- FNS**—Food and Nutrition Service, United States Department of Agriculture
- ICNM**—Interagency Committee on Nutrition Monitoring
- IOM**—Institute of Medicine
- IHS**—Indian Health Service, United States Department of Health and Human Services
- MCHB**—Maternal and Child Health Bureau, United States Department of Health and Human Services
- NAACOG**—Organization for Obstetrics, Gynecologic, and Neonatal Nurses
- NAWD**—National Association of WIC Directors
- NCEMCH**—National Center for Education in Maternal and Child Health
- NCHS**—National Center for Health Statistics, United States Department of Health and Human Services
- PHS**—Public Health Service, United States Department of Health and Human Services
- SPRANS**—Special Projects of Regional and National Significance, Maternal and Child Health Bureau
- UNICEF**—United Nations Children's Fund
- USAID**—United States Agency for International Development, United States Department of State
- USDA**—United States Department of Agriculture
- WHO**—World Health Organization
- WIC**—Special Supplemental Food Program for Women, Infants, and Children

  
**EXECUTIVE SUMMARY**

This report is intended to serve as a resource and reference for planning future breastfeeding promotion programs and for improving existing programs. Information for this report was identified through a national survey of programs, organizations, and agencies serving mothers and children. Respondents provided information on their breastfeeding promotion activities (related to the six recommendations of the 1984 Surgeon General's workshop), described their data collection efforts, identified barriers that are keeping women from breastfeeding, and made suggestions for future breastfeeding promotion activities.

There have been a number of legislative, policy, and social changes since the *Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation* and the first followup report were published in 1984 and 1985, respectively. The 1989 Child Nutrition and WIC Reauthorization Act mandated a number of important changes designed to promote breastfeeding among WIC participants, as well as earmarked \$8 million for breastfeeding promotion. The Title V Maternal and Child Health Program has increased its breastfeeding promotion activities related to services, training, and research in support of the breastfeeding national health objective. Also, the increasing number of women participating in the labor force and the marketing of infant formula directly to the public have made breastfeeding promotion efforts even more crucial as the Nation works toward achieving the year 2000 national breastfeeding objective.

A variety of breastfeeding promotion activities have been implemented at the national, State, and local levels over the past 5 years. Table 1 summarizes

*Table 1—Percent of respondents reporting activities related to the recommendations from the 1984 Surgeon General's Workshop*

<b>Recommendation</b>	<b>Percentage of respondents reporting (N=113)</b>
Professional Education	88% (100)
Support Services in the Community	74% (84)
Support in the Health Care System	73% (83)
Public Education	58% (66)
Research	47% (53)
Support in the Workplace	44% (50)

the breastfeeding promotion activities reported by respondents, organized according to the six recommendations from the Surgeon General's workshop.

Reported activities, barriers to breastfeeding and suggestions for future activities for each recommendation are summarized below, followed by a summary of data collection activities reported by respondents.

## **ACTIVITIES RELATED TO THE RECOMMENDATIONS OF THE SURGEON GENERAL'S WORKSHOP**

### **Professional Education**

Professional education was the most frequently reported activity. Education of public health clinic staff was the most common professional education activity. Many respondents felt that lack of support or encouragement from physicians, nurses, hospital staff, and other health professionals continues to be a barrier that keeps women from beginning or continuing to breastfeed. Professional education was also the activity most frequently mentioned by respondents who made suggestions for future breastfeeding promotion efforts. In addition to continuing education efforts, respondents suggested including questions regarding breastfeeding and lactation on credentialing exams and expanding preservice breastfeeding education for all health professionals.

### **Public Education**

Public education activities were reported by slightly more than half of survey respondents. A variety of hard-to-reach populations were targeted, including low-income women, minorities, adolescents, and migrant workers.

An increased awareness of the potential and use of the media, especially radio and television, seems to have developed over the past 5 years among health professionals involved in breastfeeding promotion. Several States have designated a breastfeeding promotion day, week, or month. Sophisticated media campaigns and social marketing strategies are being utilized, and one promotion project contracted with an advertising firm to develop promotional materials designed to appeal to its target audience. In addition, two States have initiated letter writing campaigns designed to influence the way in which television shows portray infant feeding.

More attention is being paid to the marketing of infant formula, both via distribution of free formula and coupons upon hospital discharge and via mail and direct advertising to the public. Advertising of formula to the public became an issue in 1989 with the entry of new brands of formula. Health care professionals have expressed their concern that this practice will negatively impact on breastfeeding rates and infant health.

The attitudes of women toward breastfeeding, as well as the attitudes of women's families and friends and of society in general, were seen by many respondents as being barriers to breastfeeding. Beliefs that breastfeeding would severely restrict a woman's lifestyle and embarrassment about breastfeeding were commonly cited by respondents as impediments to breastfeeding that could be overcome by public education efforts. Suggestions for future

breastfeeding promotion activities related to public education focused on implementing media campaigns which emphasize the idea that breastfeeding is the normative mode of infant feeding.

### **Support in the Health Care System**

The majority of respondents reported being involved in activities designed to strengthen support for breastfeeding in the health care system, mostly by developing and advocating for the implementation of policies and protocols to promote and support breastfeeding at hospitals, public health clinics, and other health care sites. The WIC Reauthorization Act of 1989, which established a number of requirements regarding breastfeeding promotion in the WIC program, was a particularly important development and has the potential to make a large impact on breastfeeding support for low-income women.

When discussing barriers to breastfeeding in the health care system, respondents focused mainly on hospital policies and procedures, such as separation of mother and infant and glucose water feeding. Respondents were also concerned about distribution of free formula at hospitals and clinics. Recommendations for future breastfeeding promotion activities in this area included coordinating services and developing and advocating for hospital policy guidelines that support breastfeeding.

### **Support Services in the Community**

Activities related to providing support services in the community were reported by a majority of respondents. Most respondents reported providing client education and individual counseling of clients and families, while slightly less than half reported providing followup services. Peer support groups and telephone hotlines seem to be increasingly popular support services.

Barriers to breastfeeding related to the lack of support services in the community were focused on the lack of knowledge about breastfeeding among women, lack of support from family and friends, and lack of postpartum support services. Recommendations for future breastfeeding promotion activities in this area included sponsoring peer support groups and training peer counselors, providing telephone hotlines, and providing postpartum followup for new mothers via home visits or phone calls.

### **Support in the Workplace**

Of the six recommendations of the Surgeon General's workshop, activities related to the recommendation to increase support for breastfeeding in the workplace were the least frequently reported. Among those who did report such activities, employee education was the most frequently cited, and employer education the least. Many respondents reported providing facilities in their own workplace for women to breastfeed or express their milk.

Although breastfeeding promotion activities related to the workplace were the least frequently reported, the most frequently mentioned barrier to

breastfeeding was the need of many women to return to work or school soon after giving birth and the lack of flexible schedules, maternity leave, and facilities for pumping and storing breastmilk. Workplace-related activities were also the least frequently mentioned among respondents who made suggestions for future breastfeeding promotion activities. This suggests that, while problems relating to the workplace are perceived by health professionals as important barriers to breastfeeding, many are unsure of what action, if any, they can undertake to reduce these barriers. Several respondents reported conducting surveys or assessments of workplace policies and the needs of breastfeeding working women, and it may be that activities to promote and support breastfeeding for working women will increase once organizations have obtained more data on the problem.

## **Research**

Considerable research on various aspects of breastfeeding has been conducted by universities and publicly and privately funded research institutions. Most of the research reported was related to social and behavioral factors that affect infant feeding decisions, and to evaluation or monitoring of breastfeeding promotion programs. This is probably due in part to the fact that a large number of the respondents represent State health agencies, with fewer respondents from universities, where physiological and nutrition research is usually conducted. It may also be reflective of the increasing emphasis on social marketing approaches to breastfeeding promotion, and on the importance of women's attitudes and beliefs about infant feeding.

Research was not mentioned in response to the survey questions on barriers to breastfeeding and on suggested future breastfeeding promotion activities. It may be that many respondents do not think of research as a breastfeeding "promotion" activity.

## **Data Collection Activities**

Data collection on breastfeeding incidence and duration is crucial for monitoring the Nation's progress toward achieving the year 2000 national breastfeeding objective, and for evaluating breastfeeding promotion programs. Other than the Ross Laboratories Mothers Survey, however, there is no frequent continuing source of data on national breastfeeding rates. The current data collection efforts at the national level are directed at particular segments of the population or at particular geographic areas, or are infrequently done.

Comparable data are not collected at the State or local levels, since many definitions of breastfeeding are utilized. Lack of a nationally recognized common definition of breastfeeding seriously hinders efforts to assess the incidence and duration of breastfeeding in the United States. It remains to be seen to what extent the development and use of a standard definition of breastfeeding in all breastfeeding promotion efforts will occur.

Much progress has been made in developing, implementing, and disseminating breastfeeding promotion ideas, activities, and programs since the Surgeon General's Workshop on Breastfeeding and Human Lactation in 1984.

By identifying six main areas (professional education, public education, the health care system, community support services, the workplace, and research) in which promotion efforts were needed, the workshop provided a framework for the discussion and implementation of breastfeeding promotion activities nationwide. The 1985 followup report served to document and disseminate information about efforts to promote breastfeeding by implementing recommendations from the workshop. It is hoped that this second followup report will expand the information provided in the first followup report and prove useful to the many individuals, organizations, and agencies across the country working to achieve the year 2000 national breastfeeding objective.



## INTRODUCTION

### BACKGROUND

The Surgeon General's Workshop on Breastfeeding and Human Lactation—held in Rochester, New York, on June 11–12, 1984—was convened by the Maternal and Child Health Bureau (MCHB), U.S. Department of Health and Human Services (DHHS), to assess the current status of breastfeeding in the United States and to develop strategies to facilitate reaching the 1990 breastfeeding health objective for the Nation. Invited workshop participants included representatives of professional and lay organizations; local, State, and Federal government; industry; and volunteer groups; as well as health professionals from a wide range of disciplines and settings serving different ethnic, cultural, and income groups.

At the workshop, workgroups were charged with identifying and prioritizing issues related to breastfeeding and human lactation and then developing recommendations and specific strategies to address them. These recommendations—published in 1984 in the *Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation*—were organized into six areas: professional education, public education, the health care system, support services, the world of work, and research.

In 1985 the *Followup Report: The Surgeon General's Workshop on Breastfeeding and Human Lactation* was published to describe efforts emanating from the Surgeon General's workshop and to continue the dissemination of information related to breastfeeding promotion activities and accomplishments. The information in that report was collected from participants in the 1984 Surgeon General's workshop, State directors of maternal and child health, members of the Healthy Mothers, Healthy Babies coalition, and regional nutrition staff of the U.S. Department of Health and Human Services.

Significant activity designed to promote breastfeeding has continued since the publication of the 1985 followup report. In order to maintain the momentum toward achieving the *Healthy People 2000* breastfeeding health objective for the Nation—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—the Maternal and Child Health Bureau requested that the National Center for Education in Maternal and Child Health (NCEMCH) develop a new report to identify recent breastfeeding promotion activities related to the 1984 Surgeon General's workshop. The intent of this *Second*



*Followup Report: The Surgeon General's Workshop on Breastfeeding and Human Lactation* is to provide information on the range of breastfeeding promotion activities that have taken place since the publication of the first followup report. It is hoped that this report will stimulate interest, serve as a resource for the planning of future breastfeeding promotion efforts, and increase support from all who can have an impact on breastfeeding decisions and opportunities. The ultimate goal is to reinforce a continuing commitment to the promotion and protection of breastfeeding and the improvement of maternal and child health.

## METHODOLOGY

The National Center for Education in Maternal and Child Health, in consultation with Maternal and Child Health Bureau staff, developed and pilot tested a questionnaire designed to gather descriptive information on breastfeeding promotion activities related to the six recommendations of the 1984 Surgeon General's workshop. The questionnaire, reprinted in appendix B on page 58, was not designed to gather quantitative data for a statistical analysis of the prevalence or type of breastfeeding promotion activities, but to collect descriptive information on as many breastfeeding promotion programs as possible.

In August 1990 the questionnaire was sent to 555 individuals, organizations, and agencies that are involved in breastfeeding, nutrition, and maternal and child health. An attempt was made to be as inclusive as possible in order to obtain responses from a variety of agencies and organizations at the national, State, and local levels across the entire United States.

Questionnaires were sent to all State maternal and child health (MCH) directors; State public health nutrition directors; regional program consultants in MCH; DHHS regional nutrition consultants; University Affiliated Program nutritionists; members of the Association of Teachers of Maternal and Child Health; members of the Association of Faculties of Graduate Programs in Public Health Nutrition; chairpersons of State Healthy Mothers, Healthy Babies coalitions; executive directors of professional organizations of physicians, nurses, dietitians, and other health professionals; directors of Federal health agencies; presidents of private and nonprofit research, consumer, and service organizations; and other individuals and organizations with an interest in maternal and child health. All recipients were encouraged to share copies of the questionnaire with other organizations they knew to be involved in breastfeeding promotion; in this way questionnaires were received by some local community organizations. In addition, breastfeeding promotion programs or activities known to NCEMCH staff or MCHB personnel but not represented in the original set of survey responses were contacted by phone, and the questionnaire was administered.

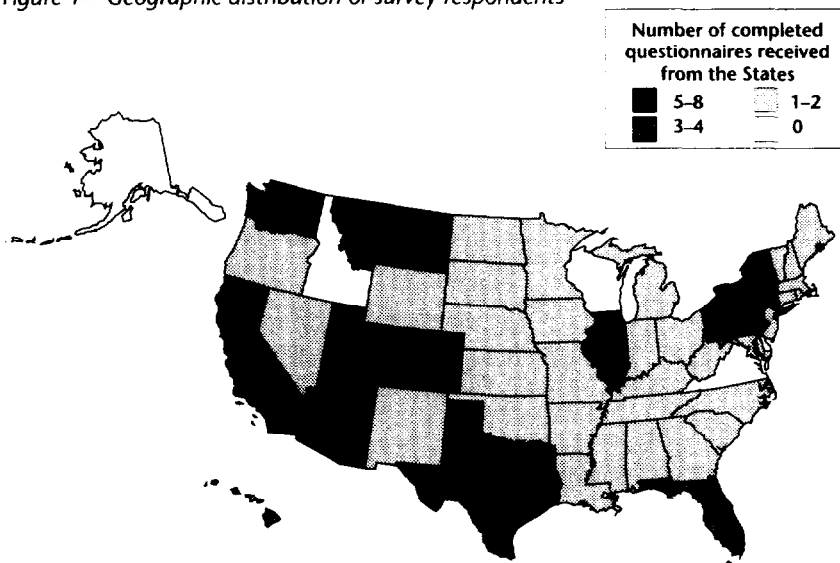
## DESCRIPTION OF SAMPLE

Of the 555 questionnaires sent, 111 completed questionnaires were returned (a response rate of 20 percent). Ten of the responding organizations reported that they had not been involved in any breastfeeding promotion activities in the last 5 years; therefore their questionnaires were discarded. Twelve additional breastfeeding promotion programs were contacted by telephone and questionnaires were administered. Thus the total number of programs describing breastfeeding promotion activities is 113.

### Type of Respondents

The geographic distribution of the respondents to the survey is described in figure 1. Forty-five States, plus the District of Columbia and the Federated States of Micronesia, were represented in the survey. The States with the

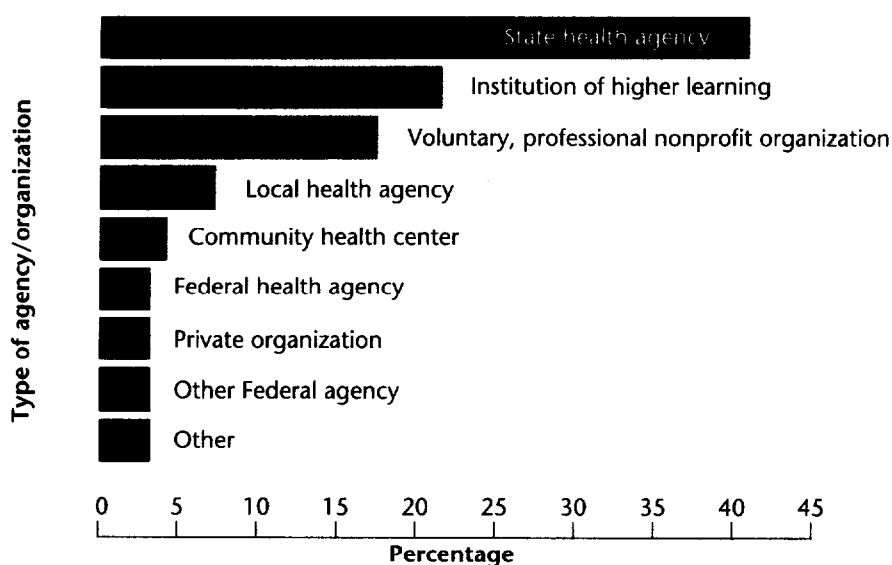
Figure 1—Geographic distribution of survey respondents



highest number of respondents were California, Colorado, and New York. States in Public Health Service (PHS) Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming) are somewhat overrepresented, probably due to the fact that copies of the questionnaire were distributed by the PHS regional nutrition consultant at a Region VIII breastfeeding promotion meeting.

The types of agencies and organizations which responded to the questionnaire are indicated in figure 2. The highest number of responses (45) came from State health agencies. Some State health agencies submitted separate surveys for their WIC and MCH programs, some submitted one questionnaire for the entire health department, and some completed a questionnaire only for the WIC program or only for the MCH program. In

Figure 2—Survey respondents by agency/organization type



cases where two questionnaires were received from a single State health agency and both appeared to describe the same program, the questionnaires were combined. In all, responses were received from State health agencies in 40 States.

#### Funding Sources

Respondents who indicated that they had been involved in breastfeeding promotion were asked to describe the sources of funding for these efforts, and 85 percent (96/113) did so. Seventy-three percent (82/113) said they received Federal or State government funds. The Special Supplemental Food Program for Women, Infants, and Children (WIC), USDA, and the Title V Maternal and Child Health Program, DHHS, were the most commonly cited sources of government funds. Other sources of government funds mentioned were State governments; the National Institutes of Health and the Indian Health Service, DHHS; and the U.S. Agency for International Development (USAID). Twenty percent (23/113) of respondents mentioned receiving support from nongovernment sources, such as universities, hospitals, private foundations, membership fees, and patient fees.

#### Collaboration

Seventy-seven percent (87/113) of respondents reported collaborating with other agencies or organizations in their breastfeeding promotion efforts. The most frequently cited type of agencies with which respondents collaborated were State and local health departments, including the WIC program. Other

organizations mentioned were (in order of frequency): La Leche League; universities and medical schools; hospitals; Healthy Mothers, Healthy Babies coalitions; professional organizations; State coalitions or task forces on breastfeeding, nutrition, or maternal and child health; the Maternal and Child Health Bureau, DHHS; State and local chapters of the March of Dimes; community health clinics; private lactation consultants; and the Indian Health Service, DHHS.

In summary, the information presented in the following chapters is based on a geographically diverse sample of agencies and organizations—largely State health agencies; institutions of higher learning; and voluntary, professional, and nonprofit organizations. The majority of respondents used some government funds to support breastfeeding promotion, most commonly WIC and Title V funds. A significant proportion reported collaborating with a variety of government and nongovernment organizations in their breastfeeding promotion efforts.

#### ORGANIZATION OF THIS REPORT

National trends in breastfeeding incidence and duration from 1985 to 1990 are discussed in the first chapter (see page 1). Legislative and social changes which may affect women's infant feeding decisions are also addressed in this chapter. The next six chapters describe the breastfeeding promotion efforts reported by the respondents. This part of the report is intended to present a descriptive overview of current breastfeeding promotion efforts, not a statistical analysis of the prevalence or type of such efforts. It was not possible to describe all reported activities and programs, but an effort was made to present a representative sample of activities. As in the 1985 followup report, the reported breastfeeding promotion activities are organized according to the six recommendations from the original 1984 workshop: professional education, public education, the health care system, community support services, the workplace, and research. These chapters also include sections on barriers to breastfeeding and suggestions for future breastfeeding promotion activities. Finally, the last chapter describes respondents' data collection activities related to breastfeeding (see page 48).

Appendixes provide detailed information about the questionnaire and respondents, publications, national and international guidelines and policy statements, research projects supported by Federal agencies, and lactation management education resources.



## 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.*

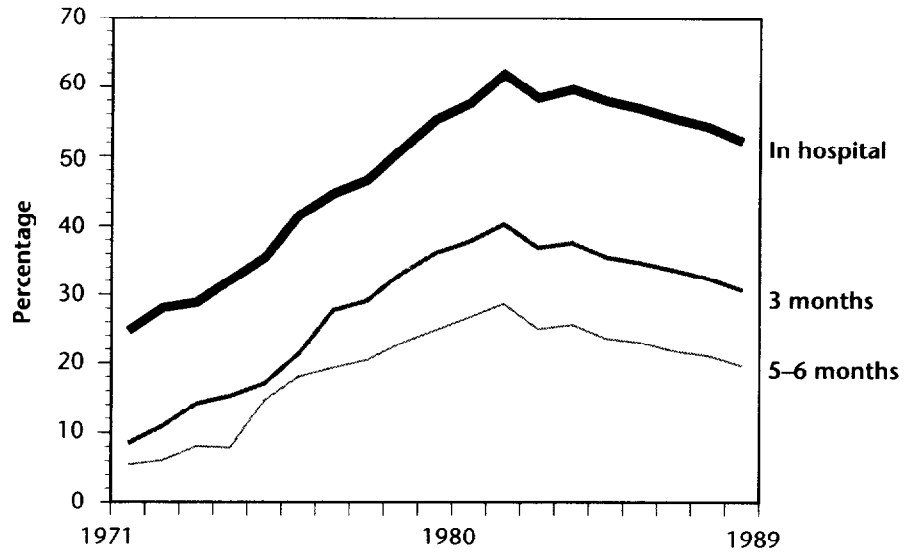
### **BREASTFEEDING RATES**

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.

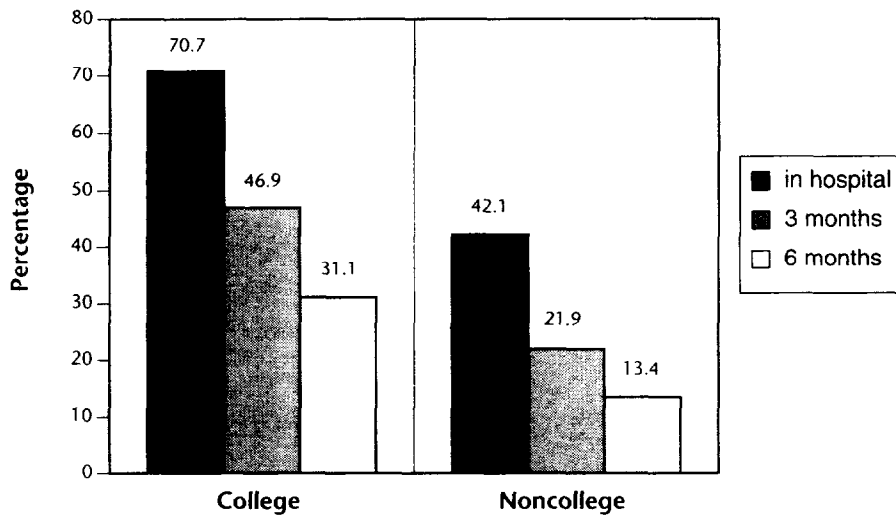
Breastfeeding incidence and duration rates are positively associated with maternal age, maternal education, and family income (IOM 1991) (see figure 4 and table 2).

## 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<sup>a</sup>

	Percentage breastfeeding at all		Percentage breastfeeding at 3 months or more	
	1981–83	1984–87	1981–83	1984–87
<b>Total</b>	58.20	59.00	39.00	33.80
<b>Race</b>				
White	62.00	62.10	41.90	35.70
Black	30.30	30.20	17.70	16.20
<b>Education</b>				
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
<b>Geographic region</b>				
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*

<b>Barriers</b>	<b>Percent of Respondents (N=84)</b>
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

<b>Population</b>	<b>Respondent</b>
<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*

<b>Barriers</b>	<b>Percentage of Respondents (N=84)</b>
<b><i>Women's attitudes</i></b>	
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)
<b><i>Societal attitudes</i></b>	
Breastfeeding is not accepted as the norm; general lack of societal support for breastfeeding	35% (29)

## **SUGGESTIONS FOR FUTURE ACTIVITIES**

Forty-one percent (46/113) of respondents recommended action related to public education, including:

- Conduct media campaigns at the national, State, and local levels. Use printed materials and television and radio public service announcements, and request that local television and radio talk shows run segments on breastfeeding.
- Work toward making breastfeeding the normative mode of infant feeding, through media campaigns, but also by advocating for positive depiction of breastfeeding on television shows, including soap operas and prime time series and movies.
- Incorporate information about breastfeeding and human lactation in elementary and secondary school biology, health, and family life curricula.
- Target programs for Hispanics, blacks, and low-income women.
- Designate a breastfeeding month at the national or State level.



## SUPPORT IN THE HEALTH CARE SYSTEM

**Recommendation:**  
Strengthen the support for breastfeeding in  
the health care system

### ACTIVITIES REPORTED

The 1984 Surgeon General's workshop recognized that increasing support for breastfeeding in the health care system is crucially important in breastfeeding promotion efforts. The workshop report states: "Support for breastfeeding needs to be conspicuous in primary care, prenatal care, and postpartum care provided in a wide variety of ambulatory care settings as well as labor, delivery, postpartum, and infant care provided in hospital settings" (DHHS 1984, p. 69). Seventy-three percent (83/113) of respondents indicated that they engage in some activities related to this recommendation. Activities reported include developing policies, standards, and protocols; establishing hospital-community liaisons; establishing laws and regulations; and training peer counselors as a way of strengthening support in the health care system.

### Policies, Standards, and Protocols

Sixty-four percent (72/113) of the respondents reported that they promoted coordinated policies and practices to increase support for breastfeeding in the health care system. Activities described include developing prenatal breastfeeding promotion protocols, issuing standards for staff education, and instituting hospital policies regarding breastfed babies (e.g., allowing rooming-in or continuous feeding and prohibiting supplemental feedings). Several examples of such efforts are described below.

In 1990 the United States signed a WHO/UNICEF joint statement, the *Innocenti Declaration*, as one of the participants in the WHO/UNICEF policymakers' meeting on "Breastfeeding in the 1990s: A Global Initiative" (see appendix I, page 106). This meeting, cosponsored by the United States Agency for International Development and the Swedish International Development Authority, was held at the Spedale degli Innocenti in Florence, Italy, from July 30 to August 1, 1990. The declaration describes the current state of breastfeeding promotion worldwide, and outlines goals to be reached by 1995. One of these goals is for governments to ensure "that every facility providing maternity services fully practices all ten of the Ten Steps to Successful Breast-feeding set out in the joint WHO/UNICEF statement *Protecting, Promoting, and Supporting Breast-feeding: The Special Role of Maternity Services*." Two sections of that statement—the Ten Steps to Successful Breast-feeding, and the Checklist for Evaluating the Adequacy of Support for Breast-

feeding in Maternity Hospitals, Wards, and Clinics—are reprinted in appendix J, on page 108.

The Maternal and Child Health Bureau, DHHS, has allocated funds for 15 maternal and child health improvement SPRANS projects, designed to assist States to develop a continuing State program capacity in breastfeeding promotion. Arkansas, Colorado, Kentucky, West Virginia, and Wisconsin were awarded grants for 3 years beginning in October 1990. Five additional grants were awarded in October 1991, and another five will be awarded in 1992. These projects are implementing a variety of activities, including providing education to professionals and patients, as well as working to enhance support for breastfeeding in the health care system through the adoption of breastfeeding policies, standards, and protocols.

In 1990 the National Association of WIC Directors (NAWD) issued *Guidelines for Breastfeeding Promotion in the WIC Program*, in order to assist State and local agencies in initiating and/or strengthening existing breastfeeding promotion and support programs. Each of the nine guidelines set forth is accompanied by specific strategies for implementation. (The guidelines are reprinted in appendix H, see page 98). In early 1991, the NAWD Breastfeeding Promotion Committee surveyed State WIC agencies to determine the utilization of the guidelines. The survey showed that 46 out of 59 programs surveyed had implemented activities coordinated with health care programs and professional organizations in 1990, and 47 planned to do so in 1991.

In 1988, the Healthy Mothers, Healthy Babies coalition conducted a survey of hospital practices related to breastfeeding. The questionnaire included a request form to enable the respondent to obtain an assortment of resources on breastfeeding at no charge. Nearly 900 hospitals responded, and the survey results were analyzed by the Center to Prevent Childhood Malnutrition. In 1989, a followup survey was conducted in order to determine the usefulness of the publications which had been distributed and to assess changes in hospital breastfeeding promotion efforts. Thirty-five percent of the hospitals responding reported that they had organized breastfeeding committees at their institution.

The goal of the Arkansas Best Start Breastfeeding Promotion Project (funded through a SPRANS grant from MCHB) is to increase the incidence and duration of breastfeeding throughout the State—particularly among the WIC and MCH clients of the Pulaski Central Health Unit of Pulaski County—by developing and implementing a comprehensive breastfeeding promotion program for low-income women. Hospitals in Pulaski County with maternity services are being surveyed about their breastfeeding practices and policies. Pediatricians, obstetricians, and family practitioners in the area are also being surveyed about their breastfeeding management and patient education practices. This information will then be utilized to determine recommended practices and policies for in-hospital breastfeeding management. Training sessions on the recommended practices and policies will be offered to interested hospital health professionals. There are also plans to review current breastfeeding policies and counseling standards in the State maternity and child health manuals; to draft and review policies related to commitment to breastfeeding; and to provide support and training for all staff in targeted clinics in order to



promote and support attitudes and approaches that provide positive reinforcement for breastfeeding families.

The Alameda County (California) Infant Feeding Project, an MCHB-funded SPRANS project, worked with low-income minority women from areas with high infant mortality rates who gave birth at a county public hospital. In-hospital and prenatal protocols which promote breastfeeding have been completed, and the project staff are planning ways to find funding for continuing breastfeeding counseling in the hospital.

In Florida, the State breastfeeding coordinator worked with the Florida Healthy Mothers, Healthy Babies coalition and the Florida Section of NAACOG to develop hospital protocols for breastfeeding. The WIC program has awarded a grant to the Florida HMHB coalition for the development of a training manual to implement the hospital protocols, *Model Hospital Policies and Protocols to Support Breastfeeding Mothers: Training Program for Hospital Staff*. Staff from 57 of the 100 hospitals in Florida participated in these training sessions. These facilities account for more than 70 percent of the hospital beds in the State. Participants also included 9 of the 10 target hospitals selected for special attention because they provide care to most of the WIC program patients in the State.

Indiana's Breastfeeding Promotion Program, another MCHB-funded SPRANS project, also sought to increase the percentage of infants who are breastfed. A breastfeeding advisory council met quarterly to guide this project, and three working subcommittees were responsible for implementation of activities. The Health Care Systems Subcommittee focused on activities which helped to develop institutional and professional policies that were congruent with the project's breastfeeding promotion philosophy. The project completed a survey of physicians and hospitals in order to evaluate breastfeeding management practices and assist in developing a training curriculum for education of health professionals on breastfeeding.

One of the goals of the Montgomery County (Maryland) Breastfeeding Coalition is to identify and support pathways to a satisfying breastfeeding experience during the prenatal period, in the hospital, in the community, and in the workplace. The coalition has distributed model hospital policies from Wellstart and UNICEF to all hospitals in the county, and also urged hospitals, health department maternity clinics, and WIC programs to develop their own policies. The coalition plans to continue to work within the health care system in order to encourage and support the development and implementation of model policies, standards, protocols, and curricula that reflect a concern for lactation and the promotion of breastfeeding.

In 1991, the Tennessee Department of Health and Environment implemented a policy for all health departments in the State against the display of infant formula products and materials. The policy calls for all print materials, audiovisual materials, and office supplies to be free of formula product names; for health department staff to exhibit a positive attitude toward breastfeeding and to make appropriate educational materials available to patients; and for efforts to be made to provide an area for women to breastfeed their infants in the program or clinic setting.

The Family Resource Center, Charleston Area Medical Center, under contract with the West Virginia Maternal and Child Health Program, is currently developing breastfeeding protocols to increase the rate of breastfeeding within its client population. To date, promotional and educational materials have been developed, prenatal and postnatal breastfeeding classes have been planned, two nurse-lactation specialists have been hired, and a hospital "warm-line" has been established to answer questions from discharged patients to facilitate the maintenance of breastfeeding.

### **Hospital-Community Liaisons**

Liaisons between community agencies and hospitals are important in fostering coordination and continuity of breastfeeding promotion activities in the health care system. Forty-two percent (47/113) of respondents reported that they worked to establish hospital-community liaisons. Several of these efforts are described below.

Arkansas' Best Start Program has developed a joint multidisciplinary team with representatives from the Arkansas Department of Health, the University of Arkansas for Medical Sciences, and the University of Arkansas Hospital. The team is participating in the first field trial of the curriculum entitled "Health Professionals Curriculum in Lactation Management," which was developed by Wellstart in 1990. Its objective is to establish a model system for breastfeeding management and support using the facilities of the University of Arkansas Hospital and a large local health unit in the same county.

In December 1986, the Arizona Healthy Mothers, Healthy Babies coalition formed a breastfeeding task force. This interdisciplinary task force includes hospital nurses, private lactation consultants, public health nutritionists, and physicians. The task force issued a model breastfeeding hospital policy which was endorsed by 14 health professional organizations, developed a hospital breastfeeding education protocol, and completed a survey of hospital breastfeeding practices.

The Tennessee Hospital Association, in conjunction with the Tennessee Department of Health and Environment, has sponsored two mailings to all Tennessee hospitals and public and private prenatal and pediatric health care providers addressing the Best Start campaign and the need for supportive hospital practices. A third letter is planned to encourage hospital staff to complete the infant feeding information on the metabolic newborn screening form so statewide data on the incidence of breastfeeding in the hospital can be obtained. The letter will outline ways in which the information from the form is being put to practical use.

### **Laws and Regulations**

The USDA's Food and Nutrition Service has established regulatory provisions for the WIC program and Commodity Supplemental Food Program (CSFP) to encourage mothers to breastfeed and to provide appropriate

nutritional support for breastfeeding participants. For example, both WIC and CSFP have designated breastfeeding women to be at a higher level of nutritional risk than nonbreastfeeding, postpartum women, and thus they have a higher priority for receiving services.

In early 1991, NAWD conducted a survey of WIC programs in 48 States and 11 American Indian nations and territories in order to determine how well the State agencies were progressing with the implementation of the new WIC Reauthorization Act breastfeeding provisions and the NAWD guidelines. The survey showed that the majority of WIC programs conducted activities related to the new provisions and guidelines in 1990, and plan to conduct more such activities in 1991. For example, 42 programs reported appointing a breastfeeding coordinator. Examples of activities undertaken by two WIC programs to implement the new requirements are described below.

The Florida WIC program reported implementing several activities related to the new regulations. These included appointing a State breastfeeding coordinator and establishing a breastfeeding promotion team. All WIC local agencies were asked to develop a breastfeeding promotion plan, identify a staff member to be the local breastfeeding coordinator, and provide training on *breastfeeding management and promotion for local coordinators*. Sixteen State grants were awarded to local agencies for breastfeeding promotion activities.

The Nebraska Department of Health reported that its WIC program had designated a breastfeeding promotion coordinator, established policies for a positive clinic environment, and identified other promotion efforts at the local level.

### **Training Peer Counselors**

Twenty-eight percent (32/113) of respondents reported training peer counselors as a way to strengthen support for breastfeeding in the health care system. Peer counselor programs are discussed in greater detail in the fifth chapter, *Support Services in the Community* (see page 33).

### **BARRIERS TO BREASTFEEDING**

Of respondents who listed barriers to breastfeeding, 33 percent (28/84) mentioned the problems that exist in the health care system. Characteristics of the hospital environment—such as separation of the mother and infant, glucose water feeding, and negative attitude of the staff—were mentioned by 31 percent (26/84) of respondents. Advertising by formula companies, distributing free formula packs at hospitals and clinics providing health care for maternity patients and infants, as well as through WIC programs, and mailing formula packs and coupons to new mothers were mentioned as having a negative impact by 26 percent (22/84) of respondents. Physical problems such as maternal illness or cesarean section were reported by 13 percent (11/84) as a barrier to breastfeeding.

## **SUGGESTIONS FOR FUTURE ACTIVITIES**

Twenty-seven percent (30/113) of respondents suggested improving support for breastfeeding in the health care system, including the following:

- Develop and advocate for adoption of hospital policy guidelines that support breastfeeding. Issues that should be addressed are distribution of discharge formula or coupons, separation of mother and infant, breastfeeding on demand, use of glucose water, and availability of lactation management services and support.
- Establish and distribute national guidelines for perinatal care, including proper breastfeeding management.
- Work to coordinate breastfeeding promotion efforts and services provided by different agencies and by private health care providers.
- Make clinic and hospital environments more supportive of breastfeeding by removing formula company materials, displaying posters and other materials which promote breastfeeding, and providing an area in the waiting room where women can breastfeed.



## SUPPORT SERVICES IN THE COMMUNITY

**Recommendation:**  
Develop a broad range of support services  
in the community

### ACTIVITIES REPORTED

In order to cope with questions and problems related to breastfeeding and lactation, women need to have access to services which encourage and assist lactation and breastfeeding during the prenatal, delivery, and postpartum periods. The report of the 1984 Surgeon General's workshop stated that community support services should: ". . . 1) emphasize the strengths of the family; 2) respect the variations found within different cultural, ethnic, and economic groups as well as life styles; 3) offer a continuum of care for the mother and baby throughout the reproductive cycle and infancy; and 4) effectively use community resources" (DHHS 1984, p. 19). This recommendation has received considerable attention from the respondents to our survey: 74 percent (84/113) reported engaging in at least one activity related to this recommendation. Activities reported by respondents include providing client education and followup services, developing support groups, and providing telephone hotlines.

### Client Education and Followup Services

The delivery of breastfeeding information, counseling, and support to expectant and new mothers is an important component of breastfeeding promotion. These mothers need information to help them with their infant feeding decisions; require instruction at the initiation of breastfeeding; and benefit from lactation management, counseling, and support services throughout the breastfeeding period. Many programs offer client education and followup services; some are described below (see table 6).

Table 6—Client education and followup services

Type of Activity	Percentage of Respondents Reporting (N=113)
Client education	70% (79)
Prenatal period	61% (69)
Hospital stay	29% (33)
Postdischarge	50% (57)
Individual counseling of clients and families	58% (65)
Follow-up services related to breastfeeding management	42% (48)

The Children's Rehabilitation Unit at the University of Kansas Medical Center in Kansas City, Kansas, provides client counseling and community outreach as part of its breastfeeding promotion effort. The program is staffed by a pediatric nurse practitioner for 20 hours each week and by a registered dietitian for 5 hours each week.

The program goal of the breastfeeding project of the Missouri Department of Health is to facilitate and support the woman's decision to breastfeed. Questionnaires are administered to clients in order to assess their knowledge and attitudes about breastfeeding and to identify and eliminate misconceptions. Pregnant women in this WIC program participate in no less than two group discussions/classes about breastfeeding, and information about what to expect at the hospital is provided to pregnant women at 32-40 weeks' gestation. A nutritionist has established daily communication with the nursing staff at the University of Missouri Hospitals and Clinic in order to identify mothers who have recently delivered and who are breastfeeding. The nutritionist and a peer counselor make contact with new mothers during a hospital or home visit to offer support and answer questions.

The Oregon Health Sciences University (OHSU) in Portland, Oregon, established a breastfeeding service in 1985. This program offers prenatal classes, provides management of OHSU patients, and accepts community referrals for inpatients and outpatients.

The Texas Children's Hospital Lactation Support Program, in order to encourage feeding hospitalized infants their own mother's milk, provides equipment, instructions, and supplies for expressing breastmilk, as well as facilities for storage and for screening for contamination. It also provides for lactation counseling and assistance with establishment of suckling following term and preterm deliveries, fortification of maternal milk for feeding premature infants, home visits, and an outpatient lactation clinic. The program is staffed by nurses (assigned to the program as lactation counselors), a neonatologist, and a lactation physiologist. Approximately 100 women participate each month. This number is expected to grow in the next few years as the program expands. The agencies collaborating on this project are Texas Children's Hospital, Baylor College of Medicine, Children's Nutrition Research Center, and St. Luke's Episcopal Hospital.

### **Support Groups**

The provision of culturally appropriate support groups which provide assistance and counseling for breastfeeding women was one of the strategies to strengthen community support for breastfeeding suggested by the Surgeon General's workshop. Support groups, which 37 percent (42/113) of respondents reported utilizing, are commonly a gathering of new mothers who meet regularly to discuss their experiences with breastfeeding. The groups can be a formal class led by a professional, or a less formal discussion led by a peer. Most of the groups described by respondents were peer support groups. Descriptions of a few of these activities follow.

La Leche League's Breastfeeding Peer Counselor Program was piloted in Illinois in 1987. It has trained 60 program coordinators and over 100 mothers as peer counselors in the Illinois area. These women assist health professionals in breastfeeding promotion programs, talk to mothers in clinic waiting rooms, lead breastfeeding support groups, and provide phone help to mothers who have questions about breastfeeding. There are currently 10 of these programs in Florida, as well.

The Colorado Department of Health reported that a chapter of the Nursing Mothers Counsel (NMC) has been organized in the State. NMC is a nonaffiliated, nonprofit, volunteer organization whose goal is to help mothers enjoy a relaxed and happy relationship with their babies. NMC members provide one-on-one counseling for new and expectant parents. Telephone contact is made to provide information and answer questions about breastfeeding. The counselor then remains available to the mother after the birth and throughout the mother's nursing experience to offer any additional information, support, and encouragement needed. NMC chapters also exist in California and Indiana.

The Ohio State University Research Foundation was awarded a SPRANS grant by MCHB in order to improve breastfeeding rates in a low-income, urban population. An integral component of this project was the use of peer counselors in both the prenatal education and postpartum support aspects of the program. Project evaluation showed that women who, in addition to receiving education from professional staff, were introduced to a peer counselor of similar ethnic, racial, and socioeconomic background, were more likely to have chosen to breastfeed at delivery than women who received the education component only.

The Tennessee Department of Health and Environment (TDHE) and the Center to Prevent Childhood Malnutrition have initiated Breastfeeding and Baby Care Support Group Projects designed to encourage local women to take charge of bringing their peers together for support and to share information on breastfeeding. In June 1989, three WIC participants in two rural southwest Tennessee counties were hired to work 10 hours a week to organize and lead these monthly breastfeeding peer support meetings. These peer counselors were trained and supervised by the coordinator of a SPRANS breastfeeding promotion project targeting the WIC programs in the two rural counties. Since September 1989 these peer counselors have led breastfeeding support meetings and organized "enrichment" meetings, where guest speakers talk to the group about topics important to them, such as exercising with their baby, dressing on a budget, using coupons, and cardiopulmonary resuscitation. The peer counselors also contact 50 to 80 women a month by telephone to invite them to meet with breastfeeding counselors, inquire about their breastfeeding, and to administer a self-esteem questionnaire. The project has now been expanded to include eight peer counselors. The Center to Prevent Childhood Malnutrition is evaluating this project for its impact on self-esteem and on breastfeeding rates. The TDHE has implemented six projects statewide based on this model.

The San Antonio Breastfeeding Project is an 18-month program designed to test the hypothesis that women who receive prenatal intervention from a culturally sensitive, breastfeeding *doula* (peer counselor) will have higher breastfeeding rates than those who receive education only and those who receive no intervention. Women in the experimental group viewed a breastfeeding skills training video and discussed cultural concerns about breastfeeding with a peer counselor who was breastfeeding during the discussion session. Study results are currently being compiled.

The Breastfeeding Peer Counseling Program developed by Children's Hospital in Washington, DC, is designed to train mothers in the WIC program to serve as breastfeeding support and peer counselors. The program has produced the Breastfeeding Peer Counselor Manual which describes program implementation, peer counselor training and monitoring, followup training activities, and program evaluation measures.

The West Virginia WIC program has developed a peer counselor training manual, using the Best Start counseling strategy, to teach mothers with breastfeeding experience to counsel, encourage, and educate women in the art of breastfeeding. These trained peer counselors will give prenatal and postnatal breastfeeding support and information to women in local WIC clinics and specific prenatal health clinics.

### **Telephone Hotlines**

The use of telephone hotlines as a method of providing outreach and followup support to lactating women was reported by 22 percent (25/113) of respondents. A variety of types of hotlines were reported. Some were staffed by peer counselors and others by community health professionals such as dietitians. Phone lines were in operation from 24 hours per day for 7 days a week to 6 hours per day for 3 days a week.

The Arkansas Best Start Program has implemented a statewide breastfeeding helpline to provide information and problem-solving services to breastfeeding families and health care professionals. The line is answered during working hours by the staff of the breastfeeding center.

La Leche League International provides a national toll-free phone information service. Callers can get referrals to local La Leche League groups, a free catalog of breastfeeding and parenting literature, and answers to breastfeeding questions.

The New Hampshire Division of Public Health reported that one local WIC agency has received funding from a foundation for the "Breastfeeding Connection," a telephone support system for breastfeeding mothers. It has been operated by a staff nutritionist for several years.

North Carolina's First Step Hotline provides information and referral on all aspects of prenatal and infant care, including breastfeeding. The hotline is jointly sponsored by the North Carolina Division of Maternal and Child Health, the March of Dimes, the Governor's Commission on Infant Mortality, and the Healthy Start Foundation.

The phone number for the telephone counseling service of the Children's



Nutrition Research Center (CNRC) in Texas is given to all individuals who refer potential research subjects to CNRC and to all potential research volunteers referred. In addition, some 1,000 women are contacted each month either prenatally or 2 weeks postnatally and offered lactation consultation if needed. Lactation consultants, dietitians, and a lactation physiologist are available during working hours to answer questions. In addition, backup and consultation is provided by pediatricians, neonatologists, nutritionists, pediatric gastroenterologists, and other faculty members. The target audience for this service includes nurses, physicians, dietitians, and research volunteers in the Houston area, but calls are received from throughout the United States. The agencies collaborating in this effort are Baylor College of Medicine, Texas Children's Hospital, Children's Nutrition Research Center, St. Luke's Episcopal Hospital, Methodist Hospital, and the MacGregor Clinics.

#### **BARRIERS TO BREASTFEEDING**

Of the 84 respondents who listed barriers to breastfeeding, 60 percent (50/84) mentioned barriers related to community support services (see table 7).

*Table 7—Community support services barriers to initiation and continuation of breastfeeding*

<b>Barriers</b>	<b>Percentage of Respondents (N=84)</b>
Lack of support from family and friends	52% (44)
Lack of knowledge, education among women	45% (38)
Lack of postpartum support services	26% (22)
Lack of role models who breastfeed	17% (14)

#### **SUGGESTIONS FOR FUTURE ACTIVITIES**

Thirty-five percent (40/113) of respondents recommended improving or expanding breastfeeding support services, including:

- Sponsor peer support groups and train peer counselors.
- Provide toll-free information hotlines and telephone support systems.
- Expand the use of lactation counselors, both in the hospital and in the community.
- Provide postpartum followup for new mothers via home visits or phone calls.
- Promote breastfeeding in prenatal classes.
- Include families in breastfeeding education efforts.



## SUPPORT IN THE WORKPLACE

### **Recommendation:**

Initiate a National Breastfeeding Promotion Effort  
Directed to Women in the World of Work

### ACTIVITIES REPORTED

The 1984 Surgeon General's Workshop on Breastfeeding and Human Lactation identified several barriers women often encounter in the workplace and at school, including lack of information on the part of the public, employers, and health care providers; logistical problems such as lack of time, equipment, and space for nursing or using breast pumps; and a social, psychological, and political climate which significantly separates the worlds of work and home that can be hostile to a working woman's attempts to combine breastfeeding and employment.

Forty-four percent (50/113) of the survey respondents reported some activities related to building support for breastfeeding in the workplace. Such activities included educating employees and employers; providing breastfeeding facilities and implementing policies in the respondent's own workplace; promoting policies and guidelines for other workplaces; conducting surveys and assessments; initiating breast pump loan programs; and implementing model or demonstration projects.

### **Education**

Provision of education and educational materials was the most commonly reported activity. Twenty-nine percent (33/113) of the respondents provided education to employees and 14 percent (16/113) provided education to employers.

The Healthy Mothers, Healthy Babies coalition's Subcommittee on Breastfeeding Promotion has prepared a resource list of publications which address breastfeeding and working women, and is developing a breastfeeding fact sheet to send to employers. In addition, the Healthy Mothers, Healthy Babies National Conference, held in the fall of 1991, had a workshop which focused on breastfeeding and working women.

The Arizona Department of Health Services staff have provided support to the Nutrition Council of Arizona Breastfeeding Advocates, which is developing a consumer guide on storing and feeding breastmilk, preparing a list of electric breast pump rental stations, and distributing these materials to hospitals and health care professionals. The department has also provided training sessions on working and breastfeeding at three meetings: the Childbirth Education Association of Greater Phoenix Conference in November 1986, the Northern

Arizona Nutrition Education Workshop in July 1987, and the Nutrition Council of Arizona Annual Meeting in April 1989.

The Oregon Health Sciences University has developed information for employers on the establishment of facilities to promote breastfeeding among working women.

### **Breastfeeding Facilities and Practices in Respondents' Workplaces**

The provision of facilities for employees to pump and store breastmilk and/or the implementation of practices to support breastfeeding employees at the respondent's workplace were reported by 22 percent (25/113) of respondents (see table 8).

In Arizona, two county health departments have implemented formal policies which enable breastfeeding employees to bring infants up to 4 months of age to work.

The Center to Prevent Childhood Malnutrition, in Bethesda, Maryland, provides its employees with 3 months of maternity leave, and allows breastfed infants to be brought to work until at least 6 months of age.

Through combined efforts the New Mexico Department of Health and Environment's Division of Health Promotion and the New Mexico Breastfeeding Task Force are providing two electric breast pumps for use by working mothers employed in the health department's South Capitol Complex.

The Division of Maternal and Child Health of the Ohio Department of Health permits a 6-month maternity leave, which makes it easier for women to establish a breastfeeding relationship with their infants in the early months of life. In addition, Ohio's Governor has mandated that day care facilities be incorporated into each new State office building. As a result, two day care facilities have recently been established in downtown Columbus, thus allowing breastfeeding mothers easier access to their infants.

At the Children's Nutrition Research Center (CNRC) in Texas, individual assistance from a lactation consultant is provided to employees upon request. In addition, the CNRC, in conjunction with Texas Children's Hospital, provides a private room, an electric pump, sterile collection kits, and freezer space for lactating employees.

In November 1991, a room equipped with a breast pump and refrigeration was established for nursing mothers at the Food and Nutrition Service, USDA, in Alexandria, Virginia. A baseline survey was completed to assess attitudes toward breastfeeding and employee needs and to provide input for better project planning. A pamphlet providing basic information on breastfeeding, expressing and storing breastmilk, and the services available through the breastfeeding mothers' room will be produced and distributed to interested employees.

La Leche League International reported that employees at the National Security Agency (NSA) in Washington, DC—with the help of the NSA Medical Center and a parent group at NSA called the Child Development Care

Association—have acquired five electric breast pumps and several rooms for the use of breastfeeding employees.

At Georgetown University Hospital in Washington, DC, two electric breast pumps are available for staff use in a special private area of the hospital's Lactation Center. Refrigeration is available in most work areas.

*Table 8—Respondents who reported provision of breastfeeding facilities and/or implementation of practices to support breastfeeding in their workplace*

University Medical Center <i>Tucson, AZ</i>	Community Nutrition Resource Center <i>Butte, MT</i>
Wellstart <i>San Diego, CA</i>	Montana Migrant Council, Inc. <i>Billings, MT</i>
Denver Department of Health and Hospitals <i>Denver, CO</i>	New Mexico Health and Environment Department Public Health Division <i>Santa Fe, NM</i>
Community Health Centers, Inc. <i>Colorado Springs, CO</i>	Nevada WIC Program <i>Carson City, NV</i>
Georgetown University Hospital <i>Washington, DC</i>	New York State Department of Health Bureau of Nutrition <i>Albany, NY</i>
Florida Department of Health and Rehabilitative Services WIC and Nutrition Services <i>Tallahassee, FL</i>	Columbia University School of Public Health <i>New York, NY</i>
Grady Memorial Hospital <i>Atlanta, GA</i>	Children's Hospital/The Ohio State University College of Medicine <i>Columbus, OH</i>
University of Illinois School of Public Health <i>Chicago, IL</i>	Oregon Health Sciences University <i>Portland, OR</i>
La Leche League International <i>Franklin Park, IL</i>	South Dakota Department of Health Nutritional Services <i>Spearfish, SD</i>
American Academy of Pediatrics <i>Elk Grove Village, IL</i>	Children's Nutrition Research Center <i>Houston, TX</i>
Indiana State Board of Health Maternal and Child Health Division <i>Indianapolis, IN</i>	Food and Nutrition Service, USDA <i>Alexandria, VA</i>
Indian Health Service <i>Rockville, MD</i>	Washington Department of Health and Social Services Division of Parent/Child Health Services <i>Olympia, WA</i>
Northern Michigan Hospitals <i>Petoskey, MI</i>	

## **Policies and Guidelines**

Sixteen percent (18/113) of respondents reported promoting workplace policies and practices supportive of breastfeeding. These efforts frequently took the form of the issuance of guidelines or recommendations for employers. Two examples of these efforts are described below.

The New Mexico Breastfeeding Task Force has developed workplace recommendations for the support of breastfeeding. These recommendations outline the minimum workplace conditions needed to support breastfeeding as well as additional conditions that help women maximize their parenting and breastfeeding skills.

The Texas Department of Health pledges in its policy statement on breastfeeding to encourage industry to promote and support breastfeeding by providing information on practices that foster a positive environment for the breastfeeding employee.

## **Surveys and Assessments of Need**

Several respondents reported conducting surveys of employers' breastfeeding facilities and policies, while others reported conducting assessments of the need for services for working women. These efforts are outlined below.

The nationwide survey of 900 hospitals conducted in 1988 by the Healthy Mothers, Healthy Babies coalition included questions on what provisions the hospitals made for their own breastfeeding employees. Sixty-two percent of the responding hospitals reported providing facilities for lactating employees. Of these, 83 percent had a place for employees to express breastmilk, 67 percent provided an electric pump, and 86 percent had a refrigerator.

The Nutrition/Breastfeeding Subcommittee of the Connecticut Healthy Mothers, Healthy Babies coalition sent questionnaires to 70 hospitals and health care facilities in order to examine the level of support which these employers provide for women who continue breastfeeding after returning to work. Thirty-eight responses were received. Forty percent of respondents allowed infants to be brought to work to be breastfed, but only one hospital allowed infants to be kept at work all day. Between 30 percent and 40 percent said that extended lunch and flextime hours were available. Day care was provided at 34 percent of the facilities, and at an additional 44 percent provision of day care was being planned. Twenty-six percent of the respondents had a women's lounge. Half of these lounges were private, and 60 percent were smokefree. All facilities had a refrigerator. Additional activities planned by the Nutrition/Breastfeeding Subcommittee include sending breastfeeding packets to the hospitals which participated in the survey and expanding the survey to other types of employers.

The Day Care/Industry Subcommittee of the Indiana State Board of Health's SPRANS breastfeeding promotion project sent surveys to 600 employers in Indiana, and 157 surveys were returned. Thirty-six percent of the respondents provided a refrigerator, 23 percent provided a private space for women to breastfeed or express milk, 10 percent allowed extended breaks for collecting

milk, 7 percent offered flextime, 2 percent provided onsite day care, and less than 1 percent allowed mothers to bring their infants to work or had an electric pump available.

The Oregon Health Sciences University (OHSU) conducted a survey of its employees who returned to work 6 months or less after giving birth, in order to assess the need for facilities and policies allowing working women to continue breastfeeding. As a result of this survey, OHSU has made a room and a breast pump available to its lactating employees.

The Texas Healthy Mothers, Healthy Babies coalition conducted a survey of workplace policies and facilities related to breastfeeding. Questionnaires were sent to 350 employers who had 50 or more employees in central Texas; 37 employers completed the survey. Fifty-nine percent of the respondents provided a refrigerator; 32 percent made flextime, job sharing, or part-time employment available; 24 percent provided a private space for breastfeeding or milk expression; 16 percent provided extended breaks for collecting milk; and 11 percent had onsite day care. None of the employers allowed women to bring their infants to work.

### **Breast Pump Loan Programs**

Three respondents—all WIC State agencies—described breast pump loan programs.

The Indiana WIC program has made breast pumps available to breastfeeding women—including those returning to work—who may benefit from having a pump.

The New Mexico WIC program has purchased 16 electric breast pumps which are available for limited loan to mothers enrolled in the WIC program throughout the State. These pumps are intended for use when there is a critical situation involving separation and/or a medical problem. Working mothers of twins or triplets are eligible to borrow a pump. Other working mothers may also be considered, but they have a lower priority.

The Tennessee WIC program has three breast pump loan programs available to its patients: (1) A manual breast pump program for which sterilization procedures for both the patient and the health department have been developed; (2) portable electric pumps for women whose infants are hospitalized for prematurity or other medical complications; and (3) electric pumps for in-hospital use by WIC patients, on permanent loan to the hospitals serving a large caseload of WIC participants.

### **Model/Demonstration Programs**

The Maternal and Child Health Bureau, DHHS, has funded two breastfeeding SPRANS demonstration projects which focused on breastfeeding and the workplace. These projects are described below.

One of the major goals of the Indiana State Board of Health's Breastfeeding Promotion Project was to address the lack of support for breastfeeding mothers in the workplace. As described above in the Surveys and Assessment section, the Day Care/Industry Subcommittee completed an employer survey of support

and facilities available to breastfeeding women. The subcommittee also developed and distributed an educational brochure for employers, *What Does Your Business Have in Common With a Breastfed Baby?*, which outlines steps employers can take to support lactating workers and discusses ways in which support of lactating workers can benefit employers.

Promoting Breastfeeding at the Worksite and in the Neighborhood, a SPRANS project implemented by the National Child Nutrition Project in Philadelphia, sought to increase the incidence and duration of breastfeeding among low-income women who were returning to work or school. Activities included producing educational materials for women, health professionals, child care providers, and employers; developing working parent advocacy committees; and implementing a peer counseling program.

#### **BARRIERS TO BREASTFEEDING**

Problems associated with women's return to work or school soon after giving birth were the most frequently cited barriers to the initiation and continuation of breastfeeding. Sixty-nine percent (58/84) of respondents who listed barriers to breastfeeding cited women's need to return to work and the lack of flexible schedules, maternity leave, and facilities for pumping and storing breastmilk.

#### **SUGGESTIONS FOR FUTURE ACTIVITIES**

Eighteen percent (20/113) of respondents made recommendations related to reducing barriers to breastfeeding in the workplace, including:

- Encourage employers to provide maternity leave, facilities for expressing and storing breastmilk, breaks for breast pumping, flextime, job sharing, onsite day care, and the like.
- Advocate for legislation on issues such as maternity leave and day care.
- Provide education to employers and employees on the importance of breastfeeding and ways to make it possible for working women to breastfeed.
- Provide facilities in State and Federal buildings for breastfeeding and for pumping and storing breastmilk to set an example.
- Set up a model project in a local industry which demonstrates how work and breastfeeding can be combined.
- Involve consumer groups, trade unions, and women's groups in breastfeeding promotion committees and other breastfeeding promotion activities which address the issue of supporting breastfeeding in the workplace, since these groups may have more influence than health professionals on employers.



## RESEARCH

### **Recommendation:**

Expand research in human lactation and breastfeeding

### **ACTIVITIES REPORTED**

The 1984 Surgeon General's workshop emphasized the need for research on breastfeeding and human lactation in order to improve knowledge, guide policy, improve strategies, and evaluate programs.

Forty-seven percent (53/113) of the respondents reported being involved in research related to breastfeeding and human lactation. The types of research activities reported focused mainly on social and behavioral factors related to breastfeeding practices, program evaluation, and nutritional and physiological aspects of human lactation. Examples of these reported research projects are described below.

#### **Research on Social and Behavioral Factors**

Most of the research reported in this category focused on determining factors which influence the mother's decision to initiate breastfeeding and factors which influence the continuation of breastfeeding. Twenty-five percent (28/113) of respondents reported being involved in social or behavioral research, although only a few projects—outlined below—were described in any detail.

The Department of Family Studies and Consumer Sciences and the School of Public Health's Division of Maternal and Child Health at San Diego State University, California, have conducted a study designed to identify the causes of lactation failure among 10 Hispanic primiparous low-income women. The mothers received one to three indepth, 1-hour assessments, depending upon how long each woman continued to breastfeed. Data was obtained on duration of breastfeeding, initiation of formula supplementation, and introduction of solid foods; maternal attitudes toward infant feeding methods; and maternal perception of social and familial pressures and support related to breastfeeding, bottle feeding, and introduction of solids. Problem areas identified in this study will be used to improve the assessment instrument for clinical use.

As discussed in the third chapter, the Best Start Program is a joint effort by eight Southeastern States to implement a comprehensive campaign of breastfeeding promotion based on social marketing techniques. As part of this project, 35 focus groups were conducted with economically disadvantaged women living in the Southeastern United States in order to determine their attitudes about breastfeeding. It was found that factors that attracted women to breastfeeding included the desire for a special, close relationship with the baby,



and the health benefits of breastmilk. Barriers to breastfeeding included embarrassment, lack of confidence, loss of freedom and lifestyle restrictions, and the return to work or school.

**Determinants of Infant Feeding: Breast vs. Bottle,** a SPRANS-funded study conducted from 1986 to 1988 at the Johns Hopkins School of Hygiene and Public Health, analyzed the major determinants of infant feeding behavior in new mothers. Women enrolled in the study were contacted by telephone or in person, once during the prenatal period and three times during the postpartum period. The study of women who prenatally stated an intention to breastfeed identified four variables that were significant predictors of failure to breastfeed for more than 7 days: (1) lack of confidence in ability to breastfeed, (2) less certainty in the decision to breastfeed, (3) delayed first breastfeeding, and (4) not having the baby rooming-in. The study also found that, while planning to be employed within 6 months postpartum did not affect breastfeeding incidence rates, actually being employed during that time period had a negative affect on breastfeeding duration rates.

Cornell University Cooperative Extension is conducting a study on the infant feeding decisions of low-income women. The project is designed to elucidate the complex interrelationships existing among personal, social, and cultural factors that influence women's infant feeding expectations and decisions. Women's learning philosophies will also be studied to understand how they influence both learning about breastfeeding and infant feeding practices. The research will be conducted through indepth, open-ended, personal interviews with 50 low-income, nulliparous pregnant women ages 18 years and older.

The goals of **Acculturation, Psychosocial Predictors, and Breastfeeding,** a SPRANS-funded study at the University of Texas Medical Branch at Galveston, are to identify the reasons mothers from the United States-Mexico border population choose to breastfeed, to determine factors important to the maintenance of breastfeeding, and to study infant health and nutritional status as a function of breastfeeding. A number of psychosocial variables will be measured to assess their importance in the initiation of breastfeeding, and these data will be analyzed within ethnic groups by degree of acculturation.

### **Program Evaluation**

Program-related research—monitoring and/or evaluating a program's breastfeeding intervention strategy to determine its effectiveness—was reported by 20 percent (23/113) of respondents. Two examples of these research activities are described below.

The USDA's WIC Breastfeeding Promotion Study and Demonstration evaluated the implementation of selected breastfeeding promotion approaches at seven WIC local agencies. These approaches included three major components: (1) A special group, such as a task force or committee, which coordinated breastfeeding promotion and support activities for WIC participants; (2) a prenatal component addressing participants' concerns and lack of knowledge about breastfeeding, and incorporating positive peer

influence; and (3) an in-hospital/postpartum component providing support after birth. These demonstration projects are described in detail in the two-volume set, *WIC Breastfeeding Promotion Study and Demonstration: Phase IV Report* (see appendix E, page 79).

Operation Breastfeed, a research project conducted by the Texas Department of Health, is designed to increase the number of participants in the WIC program who are breastfeeding at 6 weeks postpartum and to measure the impact of nutrition education on the decision to breastfeed. Activities include surveys of pregnant and postpartum participants on their attitudes regarding breastfeeding, monthly nutrition education classes for pregnant and lactating women which emphasize breastfeeding, and breastfeeding support for new mothers.

### **Nutritional and Physiological Research**

Thirteen percent (15/113) of respondents reported engaging in nutrition research, and 9 percent (10/113) reported involvement in physiological research related to breastfeeding and human lactation. Nutrition research reported was related to the nutritional needs of lactating mothers, the nutritional status of breastfed babies, and the nutrient composition of breastmilk. Physiological research reported was focused on the factors related to the production of breastmilk; the ability of the infant to utilize breastmilk; the transmission of infectious diseases, drugs, and alcohol through breastmilk; and the immunological impact of breastmilk on the infant. Two examples of these research efforts are described below.

The purpose of the research program at the Children's Nutrition Research Center (CNRC) in Texas is to define the nutritional requirements that will ensure the health of pregnant and lactating women and their infants. The CNRC has conducted numerous nutritional and physiological studies, including research on infant nutrition and growth and on breastmilk composition. The CNRC is funded in part by the USDA's Agricultural Research Service.

Federal agencies within the Department of Health and Human Services and the Department of Agriculture have funded a variety of studies related to human lactation. The Maternal and Child Health Bureau, DHHS, funds research projects related to breastfeeding through its SPRANS grants, many of which have been described in this report. The National Institutes of Health, DHHS, primarily through the National Institute of Child Health and Human Development, supports numerous research projects related to the physiology of lactation, maternal and nutritional aspects of lactation, infant physiology and nutrition related to lactation, immunological aspects of lactation, effects of environmental exposures on human milk, and the composition of human milk (see appendix K, page 112). Research on human lactation and breastfeeding supported by the U.S. Department of Agriculture has also focused on maternal nutrition and infant nutrition and on developmental aspects related to lactation (see appendix L, page 115).

## **SUGGESTIONS FOR FUTURE ACTIVITIES**

The Institute of Medicine's study, *Nutrition During Lactation* (described in the second chapter), assessed current research on the nutritional needs of lactating women, and recommended the following topics in need of further research: (1) the development of indicators of nutritional status for lactating women; (2) identification of groups of lactating women in the United States who are at nutritional risk or who could benefit from nutrition intervention programs; and (3) the effects of maternal diet and nutritional status on milk volume, milk composition, maternal health, and infant nutritional status, growth, and health.



## DATA COLLECTION

Data collection is a very important part of monitoring the Nation's progress toward the achievement of the year 2000 health objective for breastfeeding. One of the strategies proposed in the 1984 *Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation* was to develop a national data base on the initiation and duration of lactation. To followup on this particular strategy, survey respondents were asked to describe any data collection activities they undertook in order to monitor breastfeeding rates and to include the definition(s) of breastfeeding which were used. Fifty-two percent (59/113) of respondents answered this data collection question.

### DEFINITIONS OF BREASTFEEDING

Fifty-nine percent (35/59) of respondents who answered this data collection question included a description of the definition of breastfeeding which was used. Definitions varied widely, as did the time at which the assessment of feeding method was made. "Ever breastfed for any duration and frequency" was the most commonly reported definition of breastfeeding (37 percent, or 13/35). Other definitions reported include: "breastfed one or more times per day" (29 percent, 10/35); "partially breastfed, with infant formula supplementation" (23 percent, or 8/35); "exclusively breastfed" (6 percent, or 2/35) ; and "nurse's determination of infant feeding method at the hospital after delivery" (6 percent, or 2/35).

In April 1988, the Institute for International Studies in Natural Family Planning (now the Institute for Reproductive Health) at Georgetown University, with support from the United States Agency for International Development (USAID), moderated a meeting of the Interagency Working Group on Breastfeeding in Washington, DC. The goal of this meeting of national and international health and development agencies was to develop a simple means of presenting definitions and types of information essential to accurately describe breastfeeding practices throughout the world. The breastfeeding definitions developed are based on frequency of breastfeeding episodes, usual length of time for each feeding, and amounts of other foods or liquids given (see figure 5).

### DATA COLLECTION ACTIVITIES

Forty-two percent (47/113) of respondents indicated that they collected data on the incidence of breastfeeding, while only 24 percent (27/113) reported

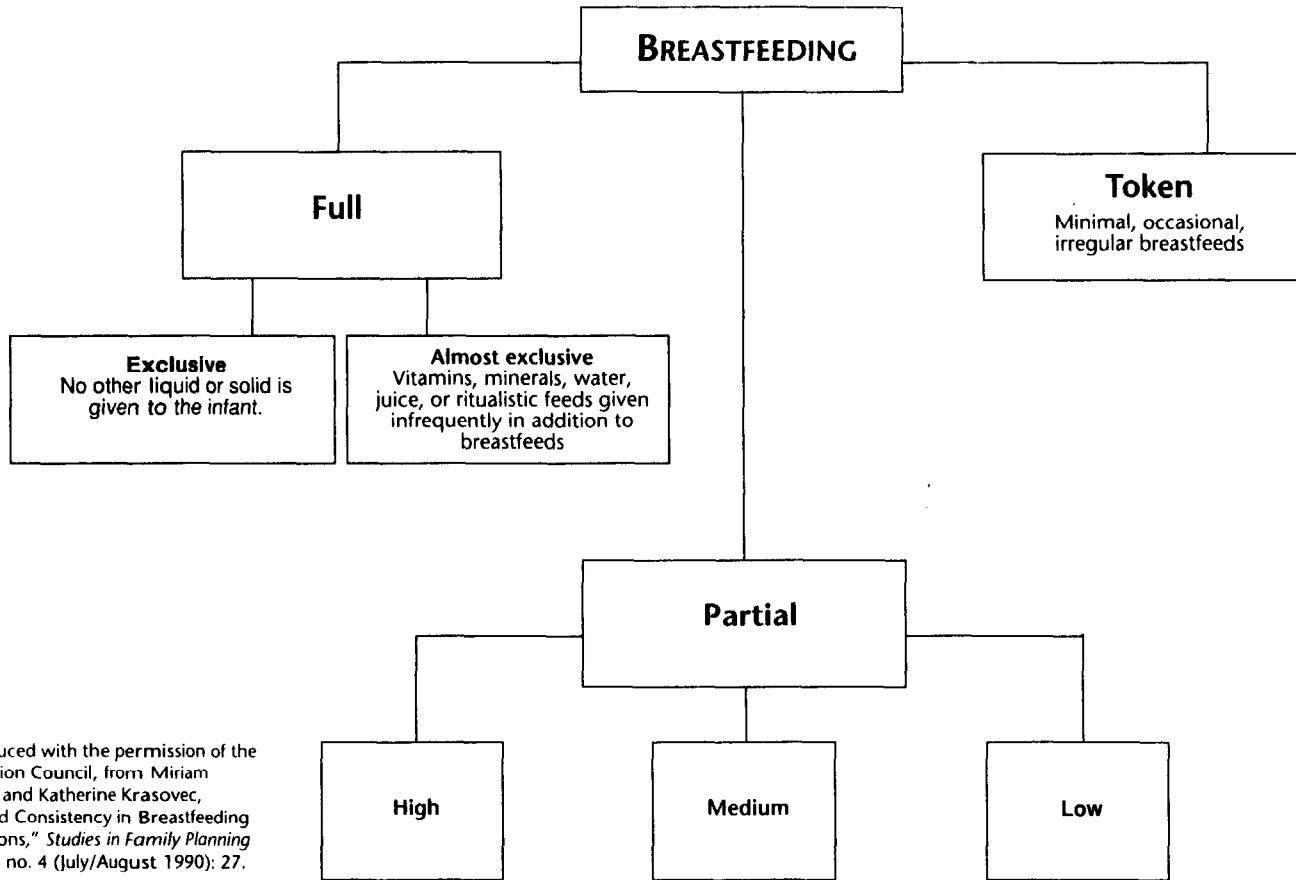


Figure 5—Schema for breastfeeding definition

Reproduced with the permission of the Population Council, from Miriam Lobbok and Katherine Krasovec, "Toward Consistency in Breastfeeding Definitions," *Studies in Family Planning* Vol. 21, no. 4 (July/August 1990): 27.

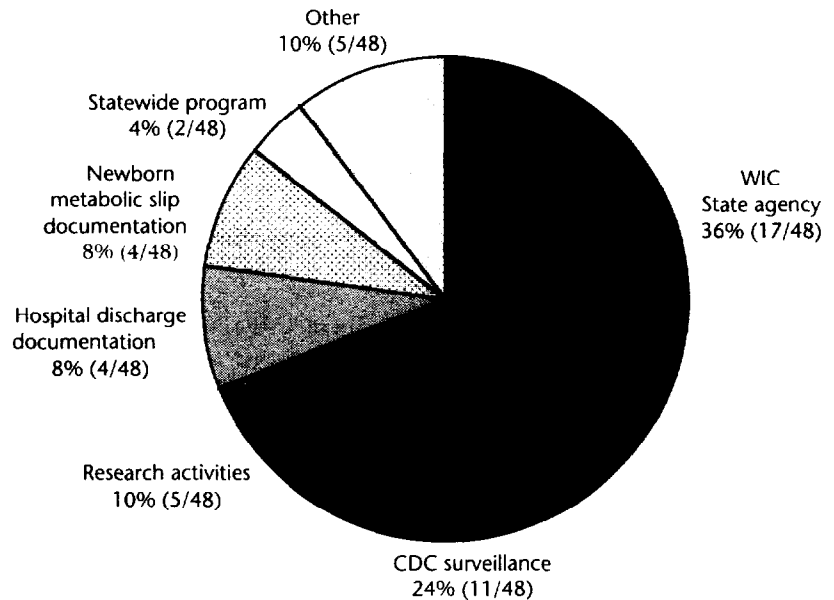
collecting data on the duration of breastfeeding. For the most part, the maximum length of time for which breastfeeding duration was tracked by the respondents ranged from 2 weeks to 6 months postpartum, although some research projects tracked their subjects through the first year of the infant's life.

The types of data collection activities undertaken differed widely among respondents (see figure 6). The most commonly reported activity was collecting data on participants in the WIC program (36 percent, or 17/48). Data collection activities for the Centers for Disease Control (CDC) Surveillance Systems were also frequently cited (24 percent, or 11/48) by respondents. These CDC-related data collection activities are described in more detail below. Other forms of data collection reported include data collection for research purposes, documentation of infant feeding method at hospital discharge, documentation of infant feeding method on newborn metabolic screening forms in the hospital, and collection of data for statewide data systems. Brief descriptions of some of the reported breastfeeding data collection activities follow.

### National Data Collection Activities

In order to compile the required report entitled *Biennial Report to Congress on the Characteristics of Participants in the Special Supplemental Food Program for Women, Infants, and Children*, the Food and Nutrition Service collects statistics on WIC programs and program participants, including some information on breastfeeding rates. The Food and Nutrition Service does not *require* States to collect and submit data on breastfeeding incidence and duration, but breastfeeding incidence and duration data have been designated optional items

Figure 6—Breastfeeding data collection activities reported by respondents (N=48)



accompanying the minimum data set that States will collect for the 1992 biennial report. According to a survey of WIC programs in 48 States and 11 American Indian nations and territories conducted by NAWD in early 1991, 31 programs plan to report breastfeeding incidence data and 26 plan to report breastfeeding duration data to FNS for the 1992 biennial report. In past WIC program national data collection efforts, the definition of breastfeeding varied by State, which complicated efforts to collect and compare data. The adoption of the standard breastfeeding definition required by the WIC Reauthorization Act, however, should remedy this situation.

The Pregnancy Nutrition Surveillance System (PNSS), supported by the Division of Nutrition, Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control, monitors nutrition-related problems and behavioral risk factors associated with low birthweight among high-risk prenatal populations. Simple key indicators of pregnancy nutritional status, behavioral risk factors, and birth outcome are monitored using clinical data from a population of low-income, high-risk pregnant women who participate in publicly funded prenatal nutrition and food assistance programs in participating States. Breastfeeding data are also collected.

The National Survey of Family Growth, conducted by the Centers for Disease Control, was conducted in 1973-74, 1976, 1982, and 1988. Interviews were conducted with a sample of women 15-44 years of age, and information was collected on fertility, family planning, and breastfeeding practices.

The Pediatric Nutrition Surveillance System (PedNSS), also sponsored by the Division of Nutrition, Center for Chronic Disease Prevention and Health Promotion, monitors simple key indicators of nutritional status among low-income, high-risk infants and children, especially those 0-5 years of age, who participate in publicly funded health, nutrition, and food assistance programs in 36 States, the District of Columbia, and the Navajo Nation. The measures used include anthropometry, birthweight, and hematology. Information is also collected on infant feeding practices.

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a cooperative effort between the Centers for Disease Control and the following 7 State Health Departments: Alaska, District of Columbia, Indiana, Maine, Michigan, Oklahoma, and West Virginia. The goal of PRAMS is to conduct State-specific, population-based surveillance of selected maternal behaviors, including infant feeding practices, that occur during pregnancy and the child's early infancy. Data are collected monthly from a sample of mothers (drawn from birth certificate information) who are contacted by mail and by telephone.

The National Health and Nutrition Examination Survey III (NHANES III) is being conducted by the Centers for Disease Control from 1988 to 1994. NHANES III is an interview and examination survey of the civilian noninstitutionalized population ages 2 months and older. A wide variety of nutrition information is being collected, including information on breastfeeding.

The National Maternal and Infant Health Survey (NMIHS) was conducted by the National Center for Health Statistics, DHHS, from 1988 to 1990. The purpose of NMIHS is to collect nationally representative data covering natality

and fetal and infant mortality. Approximately 60,000 mothers, hospitals, and providers of prenatal care were contacted via mailed questionnaires and interviews, which will be linked with vital records. A longitudinal followup of mothers was conducted in 1990, which involved recontacting mothers and sometimes their medical providers as well in order to obtain updated health histories. Mothers were questioned about infant feeding practices and recommendations they received regarding infant feeding. Hospitals were asked what the primary method of feeding was while the infant was in the hospital, and what the infant's major source of nutrition was up to the fourth month of life.

The Food and Drug Administration conducted the Survey of Infant Feeding Patterns in 1989, obtaining detailed information about feeding practices during the first 12 months of life, including information on transitions between breast and bottle feeding, introduction of cow's milk, type and timing of introduction of solid foods, and important sources of information used for guidance about infant feeding practices.

From 1984 to 1986, the National Institute of Child Health and Human Development conducted the Prospective Survey of Infant Feeding Practices Among Primipara among black and white urban primipara living in Washington, DC, in order to measure the incidence and duration of breastfeeding and identify the correlates of incidence and duration of breastfeeding.

As mentioned in the first chapter, Ross Laboratories conducts a survey which contacts mothers when their infants are 6 months of age, and asks them to recall their method of infant feeding in the hospital and during each of the first 6 months of life. These data contain information on the incidence of breastfeeding at delivery and at 6 months postpartum for women of various social, economic, educational, and ethnic backgrounds. The data from this survey have been used as the basis for setting the parameters of the 1990 and the year 2000 breastfeeding objectives for the Nation.

#### **State Data Collection Activities**

The 1991 survey of WIC programs in 48 States and 11 American Indian nations and territories conducted by NAWD found that 46 WIC programs currently collect breastfeeding incidence data, and 15 more plan to do so in the future. In addition, 41 programs currently collect breastfeeding duration data, and 17 more plan to do so in the future. Forty-three of the programs reported using the standard national definition, and, of the 15 that used other definitions, 12 plan to change to the national definition in the future. At the present time, however, it is difficult to compare some of the current and past data on breastfeeding rates in the WIC program due to the varying definitions of breastfeeding and calculation formulas used by each State. In many States, rates reflect the percentage of all postpartum women who are breastfeeding. Other States measure the rate of breastfeeding using the percentage of women previously enrolled as pregnant women who return for certification as breastfeeding mothers.

The Iowa WIC program is currently in the process of developing a new data



management system. When complete, the system will allow collection of the following data: breastfeeding incidence; breastfeeding duration; duration of breastfeeding of infants not currently breastfed; introduction of other milk besides breastmilk; number of infants being breastfed at their postpartum visits; and sociodemographic data on the mother.

The Maine Breastfeeding Surveillance System, begun in 1983 and automated in 1986, monitors the incidence of breastfeeding at hospital discharge; using information collected on standard newborn metabolic disorders screening forms. Annual reports are generated which show incidence by county, hospital, size of hospital, individual physician, and physician specialty.

In summary, with the exception of the Ross Laboratories Mothers Survey, all of the data collection activities described above have very specific target populations as well as varying methods for collecting data on breastfeeding. This makes comparison of rates across programs or among different surveillance systems very difficult. Until a national uniform data collection system to assess breastfeeding rates of all births is in place, many organizations working in breastfeeding promotion will continue to utilize the Ross Laboratories Mothers Survey to compare breastfeeding rates in the general population to rates in their own study, program, or jurisdiction. It is encouraging to see the number of breastfeeding incidence and duration data collection activities reported by respondents. However, to adequately monitor progress toward the year 2000 breastfeeding objective for the Nation, a uniform system for collecting data on all mothers and infants in the United States will need to be put into place.



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**APPENDIX A**  
**STATEMENT OF SURGEON GENERAL C. EVERETT KOOP FOR THE SUBCOMMITTEE**  
**ON NUTRITION, SENATE COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY**  
**ON JUNE 15, 1989**

Breastfeeding should be actively promoted in all maternal and child health programs. Health experts worldwide agree that breastfeeding is the optimal way to nurture infants and should be practiced whenever possible. I use the term "nurture" deliberately since it means "to feed and care for during growth." Another term for breastfeeding is "nurse" which means "to look after carefully" as well as "to suckle." Breastfeeding is, therefore, recommended not only as a method of feeding but also as a caring relationship.

In fact, lactation is the primary feature that sets us mammals apart from the rest of the animal kingdom. Human milk, as the unique species-specific source of infant nutrition, not only allows birth to occur at an early stage of development, but also requires a time of intense maternal-infant interaction to facilitate early behavioral development.

Breastfeeding offers many important benefits for mothers, babies, and also for society. In summary, for mothers it affords protection against hemorrhage and quicker recovery from childbirth, stronger bonding with the baby, and relaxation while nursing. For infants, breastfeeding provides optimal nutrition for normal growth and development; protection against disease, especially ear infections and gastrointestinal distress; and decreased risk of allergies. Breastfeeding also has benefits for society through stronger family bonds, women's fulfillment of their aspirations for motherhood and increased self-esteem, and decreased health care costs for infants.

Lactation is an integral stage of the reproductive cycle. The body prepares for lactation throughout pregnancy, and lactation automatically occurs soon after the baby is born.

There is abundant evidence that human milk is designed to enhance optimally the growth, development, and well-being of the infant. A mother's milk provides the best protection for her infant against specific infections. This cannot be duplicated in infant formula.

These benefits are meaningless unless women breastfeed. The rates of breastfeeding have been slowly declining since 1982, and breastfeeding rates in lower socioeconomic groups remain much lower than in more affluent groups. Therefore, infants who could benefit most from the immunologic advantages of human milk are least likely to receive this protection.

A decisive way to promote child health in the United States in the next decade will be to implement effective breastfeeding promotion programs so that the unique and important benefits of breastfeeding can be made available to protect health, nourish, and optimally develop infants in all segments of our society.

**APPENDIX B  
SECOND FOLLOWUP REPORT QUESTIONNAIRE**

**QUESTIONNAIRE  
SECOND FOLLOWUP REPORT:  
THE SURGEON GENERAL'S WORKSHOP  
ON BREASTFEEDING AND HUMAN LACTATION**

**Please answer the following questions about your  
breastfeeding promotion efforts.**

1. Name \_\_\_\_\_  
Title \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone number \_\_\_\_\_
  
2. Agency/organization name \_\_\_\_\_  
Check the box which best describes your agency:  
 Federal Health Agency  
 Other Federal Agency  
 State Health Agency  
 Local Health Agency  
 Voluntary, Professional, or Nonprofit Organization  
 Institution of Higher Learning  
 Private Practice  
 Other; please specify: \_\_\_\_\_
  
3. Does your agency/organization receive Title V support?  yes or  no  
If yes, please describe \_\_\_\_\_
  
4. Has your agency/organization been involved in the past 5 years in  
breastfeeding promotion efforts aimed at achieving the breastfeeding  
objectives for the Nation?  yes or  no  
If yes, please continue the questionnaire.
  
5. Please describe how your breastfeeding promotion efforts are funded.
  
6. Does your breastfeeding promotion effort involve collaboration with  
other agencies or organizations?  yes or  no  
If yes, please list all agencies and organizations involved \_\_\_\_\_

7. Check all activities included in your breastfeeding promotion efforts.

**Professional education in human lactation and breastfeeding**

- Hospital staff
- Public health clinic staff
- Private practitioners
- Other (please specify):

**Public education and other breastfeeding promotional efforts**

- Media campaigns
- School-based curricula
- Hard-to-reach populations; please specify:
- Other (please specify):

**Strengthening of support for breastfeeding in the health care system**

- Promoting coordinated breastfeeding policies and practices in the continuum of maternal and infant health
- Establishing hospital-community liaisons
- Training peer counselors
- Other (please specify):

**Building support for breastfeeding in the workplace**

- Employee education
- Employer education
- Encouraging provision of facilities for pumping and storing breastmilk
- Provision of facilities in your own agency/organization to allow employees to pump and store breastmilk
  - Day care policies and practices
  - Maternity leave policies and practices
  - Other (please specify):
- Establishing workplace policies and practices

**Development of support services in the community**

- Telephone hotlines
- Support groups (professional or peer)
- Individual counseling of clients and families
- Followup services related to breastfeeding management
- Client education
  - Prenatal breastfeeding education
  - Inhospital counseling
  - Postdischarge education
- Other (please specify):

**Research on human lactation and breastfeeding**

- Physiological (i.e., breastmilk composition)
- Social/behavioral
- Nutritional
- Economic
- Programmatic (i.e., management, financing, needs assessment, cost-benefit analysis, etc., of breastfeeding programs)
- Other (please specify):

8. Please provide a basic description of each of your breastfeeding promotion efforts (items identified in question 7) or attach copies of proposals or reports which describe your programs.

Please include information on:

- Program title
- Program design
- Length of program
- Type of staff involved (i.e., physicians, nurses, health educators, dietitians)
- Target audience
- Participating agencies

9. Please describe any data you collect on the incidence and duration of breastfeeding. Please include the definition(s) of breastfeeding used in your data collection.
10. Please describe (or provide copies of) the results of any evaluation of your breastfeeding promotion efforts.
11. Describe the key or essential elements that made these breastfeeding promotion efforts work.
12. Please list any materials generated as a result of these efforts (manuals, policy guidelines, education materials, videotapes, training curricula, conference proceedings, final reports, etc.) Please include information on each publication's availability and price, as well as a contact address and phone number. If possible, please enclose a copy of each of these materials for NCEMCH's Reference Collection.
13. In your experience, what barriers keep women from beginning to breastfeed? How can these barriers be overcome?
14. In your experience, what barriers keep women from continuing to breastfeed? How can these barriers be overcome?

15. What suggestions or ideas do you have for future breastfeeding promotion efforts?

- At the national level:
- At the State level:
- At the agency/local level:

**Please return this questionnaire to:**  
**Breastfeeding Project**  
**National Center for Education in Maternal and Child Health**  
**38th and R Streets, N.W.**  
**Washington, DC 20057**



**APPENDIX C**  
**LIST OF QUESTIONNAIRE RESPONDENTS**

*The following is a list of all questionnaire respondents. Organizations of a national scope and Federal agencies are listed first, in alphabetical order by agency or organization name. State and local organizations are then listed, in alphabetical order by state name.*

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**American College of Obstetricians and Gynecologists**  
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**American Dietetic Association**  
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**American Hospital Association**  
Bruce McPherson  
Group Vice President  
840 North Lake Shore Drive  
Chicago, IL 60611  
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**American Public Health Association  
Clearinghouse on Infant Feeding and Maternal Nutrition**  
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**Center to Prevent Childhood Malnutrition**  
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**Food and Nutrition  
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National Agricultural Library**  
U.S. Department of Agriculture  
10301 Baltimore Boulevard, Room 304  
Beltsville, MD 20705-2351  
(301) 504-5719

**Food and Nutrition Service  
Supplemental Food Programs Division**  
U.S. Department of Agriculture  
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Director  
3101 Park Center Drive, Suite 1017  
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(703) 305-2746

**Healthy Mothers, Healthy Babies  
National Coalition, Subcommittee on  
Breastfeeding Promotion**  
Brenda Lisi  
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**Indian Health Service**  
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**Maternal and Child Health Bureau**  
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Services  
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*Contact the National Center for Education in  
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**APPENDIX D  
RESPONDENTS REPORTING BREASTFEEDING PROMOTION ACTIVITIES**

RESPONDENTS	PROFESSIONAL EDUCATION	HEALTH CARE SYSTEM	WORKPLACE	PAGES WHERE CITED
<b>Federal Agencies and National Organizations</b>				
American Academy of Pediatrics	•	•	•	9, 13, 21, 24, 40
American College of Obstetricians and Gynecologists	•	•		10
American Dietetic Association	•	•	•	14, 23
American Hospital Association	•			
APHA Clearinghouse on Infant Feeding and Maternal Nutrition	•			16
Center to Prevent Childhood Malnutrition		•		28, 35, 39
Food and Nutrition Board, Institute of Medicine	•			15, 47
Food and Nutrition Information Center, USDA	•			15
Food and Nutrition Service, USDA	•	•	•	8, 15, 21, 30, 39, 40, 45, 50
Indian Health Service, DHHS	•	•	•	19, 20, 40
Institute for Reproductive Health	•	•		48, 49
La Leche League International	•	•	•	10, 11, 20, 22, 35, 37, 39, 40
Maternal and Child Health Bureau, DHHS	•	•		8, 11, 15, 19, 24, 28, 29, 35, 42, 46
National Association of WIC Directors	•			14, 28, 31, 51
National Center for Education in Maternal and Child Health	•	•	•	16
National Center for Health Statistics, DHHS				51
Subcommittee on Breastfeeding Promotion, Healthy Mothers, Healthy Babies Coalition	•	•	•	12, 28, 38, 41
U. S. Agency for International Development	•	•		9, 16, 27, 48
<b>Alabama</b>				
Alabama Department of Public Health	•	•		

<b>Arizona</b>				
Arizona Department of Health Services	•	•	•	30, 38, 39
Pima County Health Department WIC Program	•	•	•	
University Medical Center	•	•	•	
<b>Arkansas</b>				40
Arkansas Department of Health	•	•	•	
<b>California</b>				17, 28, 30, 36
Alameda County Health Care Services Agency	•		•	29
Humboldt County Health Department	•	•		
San Diego State University School of Public Health	•		•	44
University of California at Davis	•			
University of California at Los Angeles Extension	•			
Wellstart	•	•	•	10
<b>Colorado</b>				9, 19, 29, 40
Colorado Department of Health	•	•		13, 22, 24, 35
Community Health Centers, Inc.		•	•	40
Denver Department of Health and Hospitals	•	•	•	40
La Clinica del Valle, Inc.			•	
Pueblo Community Health Center	•		•	20
Presbyterian-St. Lukes's Medical Center	•		•	10
Valley-Wide Health Services, Inc.	•	•	•	
<b>Connecticut</b>				
Connecticut Department of Health Services	•	•	•	41
<b>District of Columbia</b>				
Children's National Medical Center	•			36
Georgetown University Hospital	•	•	•	40
<b>Federated States of Micronesia</b>				
Kosrae Department of Health Services	•	•	•	
<b>Florida</b>				
Best Start	•	•		11, 16, 22, 28, 30, 36, 44
Florida Department of Health and Rehabilitative Services	•	•	•	29, 31, 40
University of Florida	•	•		

	PROFESSIONAL EDUCATION	HEALTH CARE SYSTEM	WORKPLACE	PAGES WHERE CITED
<b>Georgia</b>				
Grady Memorial Hospital	•	•	•	10, 11, 40
<b>Hawaii</b>				
Hawaii Department of Health, Maternal and Child Health Branch	•	•		11
Hawaii WIC Program	•	•	•	
University of Hawaii School of Public Health	•			9, 11
<b>Illinois</b>				
Illinois Department of Public Health, Division of Family Health	•	•		
Illinois Department of Public Health, Division of Health Assessment and Screening	•	•	•	13, 14
Illinois Maternal and Child Health Coalition		•		
University of Illinois School of Public Health	•	•	•	20, 40
<b>Indiana</b>				
Indiana State Board of Health, Maternal and Child Health Division	•	•	•	22, 23, 29, 40, 41, 42
Indiana State Board of Health, WIC Program	•	•		
<b>Iowa</b>				
Iowa Department of Public Health/Iowa WIC Program	•	•		53

<b>Kansas</b>					
University of Kansas Children's Rehabilitation Unit	•	•			34
<b>Kentucky</b>					
Kentucky Department of Health Services	•	•	•		11, 22
<b>Louisiana</b>					
Louisiana State University Medical Center	•	•			
<b>Maine</b>					
Maine Department of Human Services	•				13, 53
<b>Maryland</b>					
Johns Hopkins School of Hygiene and Public Health					45
Montgomery County Health Department	•	•	•		13, 29
<b>Massachusetts</b>					
Massachusetts Department of Public Health	•	•	•		20
<b>Michigan</b>					
Michigan Department of Public Health	•	•			
Northern Michigan Hospitals	•	•	•		40
<b>Minnesota</b>					
Minnesota Department of Health	•				
<b>Mississippi</b>					
Mississippi Department of Health	•	•			
<b>Missouri</b>					
Missouri Department of Health	•	•			14, 20, 34
<b>Montana</b>					
Community Nutrition Resource Center	•	•	•		25, 40
Deering Community Health Center	•				
Montana Migrant Council, Inc.		•	•		20, 40
<b>Nebraska</b>					
Nebraska Department of Health	•	•			31
<b>Nevada</b>					
Nevada WIC Program	•	•	•		20, 40

	PROFESSIONAL EDUCATION	HEALTH CARE SYSTEM	WORKPLACE	PAGES WHERE CITED
<b>New Hampshire</b>				
New Hampshire Division of Public Health Services, Bureau of Maternal and Child Health	•	•		20
New Hampshire Division of Public Health Services, Bureau of WIC Nutrition Services	•	•		37
<b>New Jersey</b>				
New Jersey Department of Health	•	•		20
<b>New Mexico</b>				
New Mexico Health and Environment Department	•	•	•	11, 23, 39, 40, 42
<b>New York</b>				
City University of New York Hunter College				
Columbia University School of Public Health	•		•	40
Cornell Cooperative Extension				45
Cornell University	•			21
Mount Sinai School of Medicine Pediatric Pulmonary Center	•	•	•	
New York State Department of Health	•	•	•	40
University of Rochester School of Medicine and Dentistry	•	•		9, 16, 24
<b>North Carolina</b>				
North Carolina Department of Environmental Health and Natural Resources	•	•		11, 37
University of North Carolina School of Public Health	•	•		19, 20, 21
<b>North Dakota</b>				
North Dakota Health Department	•	•	•	20

<b>Ohio</b>					
Ohio Department of Health	•	•	•		11, 39
Ohio State University Research Foundation	•	•	•		35, 40
<b>Oklahoma</b>					
Oklahoma Department of Health	•	•			12, 14
Oklahoma Healthy Mothers, Healthy Babies		•			12
<b>Oregon</b>					
Oregon Department of Human Resources	•	•			23
Oregon Health Sciences University	•	•	•		34, 39, 40, 42
<b>Pennsylvania</b>					
National Child Nutrition Project	•	•	•		43
Pennsylvania Department of Health, General Nutrition Services	•	•			14, 20
Pennsylvania Department of Health, Division of Maternal and Child health			•		
<b>Rhode Island</b>					
Rhode Island Department of Health	•	•			20
<b>South Carolina</b>					
South Carolina Department of Health and Environmental Control	•	•			19, 21
<b>South Dakota</b>					
South Dakota Department of Health	•	•	•		20, 40
<b>Tennessee</b>					
Tennessee Department of Health and Environment	•	•			23, 29, 30, 35, 42
University of Tennessee College of Human Ecology	•				
<b>Texas</b>					
Children's Nutrition Research Center	•	•	•		12, 17, 34, 37, 39, 40, 46
Houston Department of Health and Human Services	•	•	•		
Texas Department of Health	•	•			12, 23, 36, 41, 42, 46
University of Texas Medical Branch	•				45
<b>Utah</b>					
Salt Lake Community Health Centers	•				



	PROFESSIONAL EDUCATION	HEALTH CARE SYSTEM	WORKPLACE	PAGES WHERE CITED
Utah Department of Health	•	•	•	
Weber Community Health Center, Inc.				
<b>Vermont</b>				
Vermont Department of Health	•	•		
<b>Washington</b>				
University of Washington Child Development and Mental Retardation Center	•			
University of Washington Division of Adolescent Medicine	•			
Washington Department of Health and Social Services	•	•	•	40
<b>West Virginia</b>				
West Virginia Department of Health and Human Resources	•	•		12, 30
<b>Wyoming</b>				
Laramie County WIC Program	•	•		
Wyoming Department of Health	•	•		

## APPENDIX E LIST OF RESOURCES

The following list of resources (journal articles, manuals, pamphlets, videotapes, etc.) was compiled from information questionnaire respondents gave about materials they have produced and/or are distributing, as well as from the Resource Center at the National Center for Education in Maternal and Child Health. The list is organized into the six main topic areas discussed in this report: professional education, public education, support in the health care system, support in the community, support in the workplace, and research. A brief paragraph at the beginning of each section describes the types of materials listed in that section.

### PROFESSIONAL EDUCATION

This section contains proceedings of conferences; newsletters, curricula, textbooks, and manuals for professionals; and state-of-the-art reports.

Bradley, R. J. *A model for improving breastfeeding practices and nutrition: A practical guide for the health professional.* (1990). Butte, MT: Community Nutrition Resource Center.

Contact: Rita J. Bradley, Community Nutrition Resource Center, P.O. Box 4511, Butte, MT 59702. (406) 782-2386. \$25.00 for single copy, \$22.00 each for 2-9 copies, \$20.00 each for 10 or more copies, plus \$4.95 shipping/handling.

DiLoreto, M. K., Murray, T., Mortell, T., and Hughes, J. A. *Breastfeeding training and resource guide for staff: Level II training module.* (1990). Portland, OR: WIC Program, Oregon Health Division.

Contact: Oregon WIC and MCH Programs, Office of Health Services, Oregon Health Division, P.O. Box 231, Portland, OR 97207. (503) 299-5691.

Florida Department of Health and Rehabilitative Services, WIC and Nutrition Services. *Florida's nutrition paraprofessional training guide: The breastfeeding module.* (1991). Tallahassee, FL: WIC and Nutrition Services, Florida Department of Health and Rehabilitative Services.

Contact: Mary Ann Patterson, WIC and Nutrition Services, Florida Department of Health and Rehabilitative Services, 1317 Winewood Boulevard, Tallahassee, FL 32399-0700. (904) 488-8985.

Hughes, V., and Owen, J. *Self-learning packets: Initiating breastfeeding; Difficulties breastfeeding mothers may encounter; Use of a breast pump and breastmilk storage; and Breastfeeding ready reference.* (1989). Washington, DC: National Capital Lactation Center, Georgetown University Hospital.

Contact: National Capital Lactation Center, Georgetown University Hospital, 3800 Reservoir Road, N.W., Washington, DC 20057. (202) 784-6455. \$10.00 each.

Illinois Department of Public Health, Nutrition Services Section, Breastfeeding Promotion Task Force. *Breastfeeding topics: A communication of the breastfeeding promotion task force.* (1989-1990). Springfield, IL: Breastfeeding Promotion Task Force, Illinois Department of Public Health.

*Contact:* Merryjo Ware, M.P.H., R.D., Nutrition Services Coordinator, Division of Health Assessment and Screening, Illinois Department of Public Health, 100 West Randolph, Suite 6-600, Chicago, IL 60601. (312) 814-5126.

Illinois Department of Public Health, Office of Health Services, Division of Health Assessment and Screening, Nutrition Services Section. *Lactation counselor's manual (2nd edition).* (1989). Springfield, IL: Nutrition Services Section, Illinois Department of Public Health.

*Contact:* Merryjo Ware, M.P.H., R.D., Nutrition Services Coordinator, Division of Health Assessment and Screening, Illinois Department of Public Health, 100 West Randolph, Suite 6-600, Chicago, IL 60601. (312) 814-5126. Available at no charge within Illinois ; non Illinois residents can obtain a copy for loan from NCEMCH.

Institute of Medicine. *Nutrition during lactation.* (1991). Washington, DC: National Academy Press.

*Contact:* National Maternal and Child Health Clearinghouse, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8400 or (703) 821-8955, ext. 254.

Naylor, A. J., Dixon, S., and Schooley, J. *The lactation management continuing education project: A model for education/training in maternal and child health.* (1989). San Diego, CA: Wellstart.

*Contact:* Wellstart, P.O. Box 87549, San Diego, CA 92138. (619) 295-5192. Single copies available at no charge.

New Mexico Health and Environment Department. *Curriculum and packet of articles for expanding lactation training statewide.* (n.d.). Santa Fe, NM: New Mexico Health and Environment Department.

*Contact:* Sharon Porter, R.D., WIC Breastfeeding Coordinator, Public Health Division, New Mexico Health and Environment Department, Santa Fe, NM 87503. (505) 827-2486. Single copies available at no charge.

Rodriguez-Garcia, R., Schaefer, L. A., and Yunes, J. (Eds.). *Lactation education for health professionals.* (1990). Washington, DC: Pan American Health Organization.

*Contact:* Institute for Reproductive Health, Georgetown University, 3800 Reservoir Road, N.W., Washington, DC 20007. (202) 687-1392. Available at no charge for developing country organizations. For all others the book is available at \$10.00 per copy.

Steering Committee to Promote Breastfeeding in New York City. *The art and science of breastfeeding*. (1986). Washington, DC: National Center for Education in Maternal and Child Health.

*Contact:* National Maternal and Child Health Clearinghouse, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8410 or (703) 821-8955, ext. 254. \$5.00 per manual and \$50.00 per set of slides; make check payable to National Center for Education in Maternal and Child Health.

Taylor, M. M. *Transcultural aspects of breastfeeding: U.S.A.* (1985). Lactation Consultant Series, unit 2. Garden City Park: Avery Publishing Group.

*Contact:* Avery Publishing Group, 350 Thorens Avenue, Garden City Park, NY 11040. (516) 741-2155. \$3.00 per copy; make check payable to Avery Publishing Group, Inc.

Worthington-Roberts, B., and Williams, S. R. *Nutrition in pregnancy and lactation (4th edition)*. (1989). St. Louis, MO: C.V. Mosby Company.

*Contact:* C.V. Mosby Company, 11830 Westline Industrial Drive, Saint Louis, MO 63146. (800) 325-4177. \$21.95 per copy plus \$3.50 for shipping and handling. A 10% discount is available for order of 10 books or more.

#### **PUBLIC EDUCATION**

*This section is divided into three subsections: position and policy statements on breastfeeding and marketing of infant formula; promotional breastfeeding materials for patients and the public; and guidelines for breastfeeding promotion and education.*

#### **Policy and Position Statements**

Ambulatory Pediatric Association. *Resolution*. (1989). McLean, VA: Ambulatory Pediatric Association.

*Contact:* Ambulatory Pediatric Association, 6728 Old McLean Village Drive, McLean, VA 22101. (703) 556-9222.

American Academy of Family Physicians. *Advertising: Infant formula; and Infant health: Breast feeding and infant nutrition*. (1989). 1990-1991 Compendium of AAFP Positions on Selected Health Issues, pp. 5, 59. Kansas City, MO: American Academy of Family Physicians.

*Contact:* American Academy of Family Physicians, 8880 Ward Parkway, Kansas City, MO 64114-2797. (816) 333-9700.

American Academy of Pediatrics. *Policy on direct advertising to the public*. (1989). Elk Grove Village, IL: American Academy of Pediatrics.

*Contact:* American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, IL 60009-0927. (800) 433-9016.

American Academy of Pediatrics. *Policy statement based on task force report: The promotion of breast-feeding*. (1982). *Pediatrics*, 69(5): 654-61. Elk Grove Village, IL: American Academy of Pediatrics.

Contact: American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, IL 60009-0927. (800) 443-9016.

American Academy of Pediatrics. *Recommended infant formula code of practice.* (n.d.). Elk Grove Village, IL: American Academy of Pediatrics.

Contact: American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, IL 60009-0927. (800) 433-9016.

American Dietetic Association. *Marketing of infant formulas (ADA timely statement).* (1989). *Journal of the American Dietetic Association*, 89(2): 268. Chicago, IL: American Dietetic Association.

Contact: American Dietetic Association, 206 South LaSalle Street, Suite 1100, Chicago, IL 60604-1003. (312) 899-0040.

American Dietetic Association. *Position of the American Dietetic Association: Promotion of breast feeding.* (1986). *Journal of the American Dietetic Association*, 86(11): 1580-85. Chicago, IL: American Dietetic Association.

Contact: American Dietetic Association, 206 South LaSalle Street, Suite 1100, Chicago, IL 60604-1003. (312) 899-0040.

American Medical Association. *Direct advertising of RX drugs, durable medical goods, and infant formulas to the public; Encouragement of breast-feeding by WIC participants; Infant nutrition; and Breast-feeding.* (1990). American Medical Association Policy Compendium: Current Policies of the AMA House of Delegates Through the 1989 Interim Meeting, pp. 23, 45, 50, 51. Chicago, IL: American Medical Association.

Contact: American Medical Association, 515 North State Street, Chicago, IL 60610. (312) 464-5471.

American Public Health Association. *APHA policy statements: Infant feeding in the United States.* (1981). *American Journal of Public Health*, 71(2): 207-11. Washington, DC: American Public Health Association.

Contact: American Public Health Association, 1015 15th Street, N.W., Washington, DC 20005. (202) 789-5600.

National Association of Pediatric Nurse Associates and Practitioners. *Policy statement on breastfeeding.* (1988). Cherry Hill, NJ: National Association of Pediatric Nurse Associates and Practitioners.

Contact: National Association of Pediatric Nurse Associates and Practitioners, 1101 Kings Highway, North, Suite 206, Cherry Hill, NJ 08034. (609) 667-1773.

National Association of WIC Directors. *Position of the National Association of WIC Directors on breastfeeding promotion in the WIC program.* (1989). Jackson, MS: National Association of WIC Directors.

Contact: Kathy Dugas, R.D., Chair, National Association of WIC Directors Breastfeeding Promotion Committee, c/o Mississippi WIC Program, 2423 North State Street, Underwood Annex Room 211, Jackson, MS 39215.

Oklahoma State Department of Health, Maternal and Child Health Services, Nutrition Services. *Oklahoma State Department of Health position on the promotion of breastfeeding*. (n.d.). Oklahoma City, OK: Oklahoma State Department of Health.

*Contact:* Maternal and Child Health Services, Nutrition Division, Oklahoma State Department of Health, 1000 Northeast 10th Street, P.O. Box 53551, Oklahoma City, OK 73152.

U.S. Department of Health and Human Services, Public Health Service. *Healthy people 2000: National health promotion and disease prevention objectives*. (1991). Washington, DC: Public Health Service, U.S. Department of Health and Human Services.

*Contact:* Superintendent of Documents, Government Printing Office, Washington, DC 20402. (202) 783-3238. \$31.00 for the report and \$9.00 for the summary (GPO# 017-001-00474-0).

### **Promotional Materials for Patients and the Public**

Best Start. *Best start: Breastfeeding for healthy mothers, healthy babies: Promotional and educational materials catalog and order form*. (1991). Tampa, FL: Best Start.

*Contact:* Best Start, 3500 E. Fletcher Avenue, Suite 308, Tampa, FL 33613. (800) 277-4975. Available at no charge.

Healthy Mothers, Healthy Babies Coalition Subcommittee on Breastfeeding Promotion. *A selected bibliography of videotapes on breastfeeding*. (1989). Washington, DC: National Center for Education in Maternal and Child Health.

*Contact:* Librarian, National Center for Education in Maternal and Child Health, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8400. Available for loan from the National Center for Education in Maternal and Child Health.

Indiana State Board of Health, Indiana Breastfeeding Promotion Project. *Breastfeeding . . . for all the right reasons*. (n.d.). Indianapolis, IN: Indiana Breastfeeding Promotion Project, Indiana State Board of Health.

*Contact:* Nancy B. Meade, R.D., M.P.H., Nutritionist, Division of Maternal and Child Health, Indiana State Board of Health, 1330 West Michigan Street, P.O. Box 1964, Indianapolis, IN 46206-1964. (317) 633-0656. \$6.00 for video; \$25.00 for public service announcements; other materials available at no charge.

Massachusetts Department of Health, WIC Program. *Thinking about breastfeeding?* (1985). Boston, MA: WIC Program, Massachusetts Department of Health.

*Contact:* Massachusetts WIC Office, 150 Tremont Street, Boston, MA 02111. (617) 727-6876. Single copies available at no charge.

North Carolina Department of Environment, Health, and Natural Resources, Division of Maternal and Child Health, WIC Section. *Breastfed babies . . . are happy.* (n.d.). Raleigh, NC: WIC Section, Division of Maternal and Child Health, North Carolina Department of Environment, Health, and Natural Resources.

*Contact:* Division of Maternal and Child Health, WIC Section, Department of Environment, Health, and Natural Resources, P.O. Box 27687, Raleigh, NC 27611-7687. Single copies available at no charge.

Ohio State University Breastfeeding Promotion Project. *Mother and baby breastfeeding.* (1987). Columbus, OH: Ohio State Breastfeeding Promotion Project.

*Contact:* Lindsey K. Grossman, M.D., Section of Ambulatory Pediatrics, Children's Hospital, 700 Children's Drive, Columbus, OH 43235. (614) 460-8478.

Pima County Health Department, Project BEST. *Focus on the best (Fijese en lo mejor).* (1989). Tucson, AZ: Project BEST, Pima County Health Department.

*Contact:* Becky Melland-Buckley, M.S., R.D., Manager, Community Nutrition Division, Pima County Health Department, 1121 North El Dorado Place, E-200, Tucson, AZ 85715. (602) 296-6207.

Rees, J., and Murphy, S. *Outside my mom: The story of a breastfed baby.* (n.d.). Seattle, WA: Puget Sound Chapter, March of Dimes Birth Defects Foundation.

*Contact:* Supply Division, March of Dimes Birth Defects Foundation, 1275 Mamaroneck Avenue, White Plains, NY 10605. \$15.00 for filmstrip, \$25.00 for slides.

South Carolina Department of Health and Environmental Control, and the South Carolina Educational Television Network. *Breastfeeding: The very sweet feeling only mothers know.* (1987). Columbia, SC: South Carolina Department of Health and Environmental Control, and the South Carolina Educational Television Network.

*Contact:* Jenny Kirksey, Division of WIC Services, South Carolina Department of Health and Environmental Control, Box 101106, Columbia, SC 29211. (803) 737-3840.

#### **Guidelines for Breastfeeding Promotion and Education**

*Breastfeeding promotion guidebook.* (1985). Philadelphia, PA: National Child Nutrition Project.

*Contact:* Librarian, National Center for Education in Maternal and Child Health, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8400. Available for loan.

American Public Health Association. *Government legislation and policies to support breastfeeding, improve maternal and infant nutrition, and implement a code of marketing of breastmilk substitutes.* (1986). Washington, DC: American Public Health Association.

*Contact:* American Public Health Association, 1015 15th Street, N.W., Washington, DC 20005. (202) 789-5600.

Huffman, S. L. *Breastfeeding policies in the U.S.: What can we learn from developing countries.* (1990a). Bethesda, MD: Center to Prevent Childhood Malnutrition.

*Contact:* Center to Prevent Childhood Malnutrition, 7200 Wisconsin Avenue, Suite 204, Bethesda, MD 20814. (301) 986-5777. \$5.00 per copy plus \$2.90 for shipping and handling.

Huffman, S. L. *Should infant formula be marketed to the public?* (1990b). Bethesda, MD: Center to Prevent Childhood Malnutrition.

*Contact:* Center to Prevent Childhood Malnutrition, 7200 Wisconsin Avenue, Bethesda, MD 20814. (301) 986-5777.

Lazarov, M. *Breast-feeding promotion: A handbook for public health professionals.* (1986). Nashville, TN: Breastfeeding Promotion Task Force, Tennessee Department of Health and Environment.

*Contact:* Tennessee Department of Health and Environment, Nutrition and Supplemental Food Programs, 100 Ninth Avenue, North, Nashville, TN 37219-5405. (615) 741-0265. \$5.00 per copy.

#### **SUPPORT IN THE HEALTH CARE SYSTEM**

*This section contains descriptions of health care-based programs; publications on breastfeeding and the health care system; hospital policies and protocols for promoting breastfeeding in the health care system; health care standards; publications on training peer counselors; regulations for clinics; and surveys of hospital breastfeeding protocols and practices.*

Arizona Department of Health Services, Office of Nutrition Services. *Hospital breastfeeding education protocol.* (n.d.). Phoenix, AZ: Office of Nutrition Services, Arizona Department of Health Services.

*Contact:* Office of Nutrition Services, Arizona Department of Health Services, 1740 West Adams, Phoenix, AZ 85007. (602) 542-1886.

Arizona Healthy Mothers, Healthy Babies Coalition. *Arizona Healthy Mothers, Healthy Babies Breastfeeding Task Force model hospital policy.* (1988). Phoenix, AZ: Arizona Department of Health Services.

*Contact:* Arizona Healthy Mothers, Healthy Babies Coalition, Arizona Department of Health Services, Office of Nutrition Services, 1740 West Adams, Room 208, Phoenix, AZ 85007. (602) 542-1890.



Biondillo, N. *Breast feeding your hospitalized infant.* (1990). Houston, TX: Children's Nutrition Research Center.  
*Contact:* Office of Educational Resources, Texas Children's Hospital, 6621 Fannin, Houston, TX 77030. (713) 770-2040. \$1.50 each for less than 50; \$1.00 each for 50 or more.

Breunig, S., and Merwin, M. *Model hospital policies and protocols to support breastfeeding mothers: A training program for hospital staff.* (1990). Gainesville, FL: Florida Healthy Mothers, Healthy Babies and Florida Department of Health and Rehabilitative Services, WIC Office.  
*Contact:* Carol Brady, Executive Director, Florida Healthy Mothers, Healthy Babies Coalition, 15 S.E. First Avenue, Suite A, Gainesville, FL 32601. (904) 392-5667. \$50.00 per copy plus \$10.00 postage and handling.

Center to Prevent Childhood Malnutrition. *Analyses of Healthy Mothers, Healthy Babies surveys of hospital practices related to breastfeeding: 1988 survey.* (n.d.). Bethesda, MD: Center to Prevent Childhood Malnutrition.  
*Contact:* Healthy Mothers, Healthy Babies, 409 12th Street, S.W., Washington, DC 20024-2188. (202) 863-2458.

District of Columbia Department of Human Services, Commission of Public Health, WIC State Agency. *District of Columbia breastfeeding peer counselor program: Training manual.* (1990). Washington, DC: WIC State Agency, District of Columbia Department of Human Services.  
*Contact:* Ms. Judy Wilson, Manager, WIC State Agency, District of Columbia Department of Human Services, 1660 L Street, N.W., Washington, DC 20036. (202) 673-6746. \$15.00.

Georgetown University Hospital, National Capital Lactation Center. *Counseling protocols, nursing care plans.* (n.d.). Washington, DC: National Capital Lactation Center, Georgetown University Hospital.  
*Contact:* National Capital Lactation Center, Georgetown University Hospital, 3800 Reservoir Road, N.W., Washington, DC 20057. (202) 784-6455. \$20.00.

Healthy Mothers, Healthy Babies Coalition. *Response to breastfeeding survey: Follow-up questionnaire and data.* (n.d.). Washington, DC: Healthy Mothers, Healthy Babies Coalition.  
*Contact:* National Maternal and Child Health Clearinghouse, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8410 or (703) 821-8955, ext. 254. Available at no charge.

Labbok, M., and McDonald, M. (Eds.). *Proceedings of the Interagency Workshop on Health Care Practices Related to Breastfeeding.* (1990). *International Journal of Gynecology and Obstetrics*, 31(1). New York, NY: Elsevier Scientific Publishers.  
*Contact:* Miriam H. Labbok, Institute for Reproductive Health, Georgetown University, 3800 Reservoir Road, N.W., Washington, DC 20057. (202) 687-1392.

Levine, R. E., Huffman, S. L., and Labbok, M. *Changing hospital practices to promote breastfeeding: Financial considerations*. (1990). Bethesda, MD: Center to Prevent Childhood Malnutrition.

*Contact:* Ruth E. Levine Ph.D., Center to Prevent Childhood Malnutrition, 7200 Wisconsin Avenue, Suite 204, Bethesda, MD 20814. (301) 986-5777. Available for \$5.00 plus \$2.40 for postage and handling.

Tibbetts, E., and Cadwell, K. *The health ed breastfeeding teaching box for in-hospital use*. (1985). Glenside, PA: Health Education Associates.

*Contact:* Health Education Associates, Inc., 8 Jan Sebastian Way, Sandwich, MA 02563. (508) 888-8044.

Wellstart. *Model hospital breastfeeding policies for full-term normal newborn infants*. (1988). San Diego, CA: Wellstart.

*Contact:* Wellstart, P.O. Box 87549, San Diego, CA 92138. (619) 295-5192.

World Health Organization. *Protecting, promoting, and supporting breast-feeding: The special role of maternity services*. (1989). Geneva, Switzerland: World Health Organization.

*Contact:* WHO Publications Center USA, 49 Sheridan Avenue, Albany, NY 12210. (518) 436-9686. \$5.40 per copy plus \$3.00 postage and handling.

#### **SUPPORT SERVICES IN THE COMMUNITY**

*This section is divided into two sub-sections: educational materials for patients, and materials for professionals. The materials for professionals include descriptions of support groups, hotlines, and community-based programs such as WIC clinics, as well as community resource lists.*

#### **Educational Materials for Patients**

American Dietetic Association. *Breast feeding: Baby's best start (Dar el pecho: El mejor comienzo para su bebe) (2nd edition)*. (1983). Chicago, IL: American Dietetic Association.

*Contact:* Publications Department, American Dietetic Association, 216 West Jackson Boulevard, Suite 800, Chicago, IL 60606-6995. (800) 877-1600.

Community Nutrition Resource Center. *Breastfeeding: Practical information for success series*. (1990). Butte, MT: Community Nutrition Resource Center.

*Contact:* Rita J. Bradley, Community Nutrition Resource Center, P.O. Box 4511, Butte, MT 59702. (406) 782-2386. \$6.50 per sample packet, quantity rates available on request.

Crane, K., Levert, E., Manning, W., and Williamson, M. *The natural thing to do*. (n.d.). Atlanta, GA: Kuona.

*Contact:* Division of Nutrition Services, Tennessee Department of Public Health, Penthouse, TDPH State Office Building, Nashville, TN 37216. (615) 741-7218.

Harter, C., Grossman, L. K., and Kay, A. *Helpful hints for the nursing mother*. (1986). Columbus, OH: Ohio State University Breastfeeding Promotion Project.

*Contact:* Lindsey K. Grossman, M.D., Section of Ambulatory Pediatrics, Children's Hospital, 700 Children's Drive, Columbus, OH 43235. (614) 460-8478.

Health Education Associates. *Publications catalog*. (1989). Sandwich, MA: Health Education Associates.

*Contact:* Health Education Associates, Inc., 8 Jan Sebastian Way, Sandwich, MA 02563. (508) 888-8044.

Iowa Department of Public Health, WIC Program. *A guide to breast feeding*. (n.d.). Des Moines, IA: WIC Program, Iowa Department of Public Health.

*Contact:* Brenda Dobson, WIC Program, Iowa Department of Public Health, Lucas State Office Building, 3rd Floor, Des Moines, IA 50319-0075. (515) 281-7769.

La Leche League. *Publications catalog*. (n.d.) Franklin Park, IL: La Leche League.

*Contact:* La Leche League Publications Department, 9616 Minneapolis Avenue, Box 1209, Franklin Park, IL 60131-8209.

Massachusetts Department of Health, WIC Program. *Breastfeeding: Getting started*. (1987). Boston, MA: WIC Program, Massachusetts Department of Health.

*Contact:* Massachusetts WIC Office, 150 Tremont Street, Boston, MA 02111. (617) 727-6876. Single copies available at no charge.

Massachusetts Department of Health, WIC Program. *Breastfeeding your new baby*. (1986). Boston, MA: WIC Program, Massachusetts Department of Health.

*Contact:* Massachusetts WIC Office, 150 Tremont Street, Boston, MA 02111. (617) 727-6876. Single copies available at no charge.

O'Leary, M. J. *Breastfeeding your preterm baby*. (1989). Seattle, WA: Health Sciences Center for Educational Resources, University of Washington.

*Contact:* Health Sciences Center for Educational Resources, Distribution Center, SB-56, University of Washington, Seattle, WA 98195. (206) 545-1186. \$200.00 for complete package, \$90.00 for individual videotape/handout packages.

Olson, C., Kaplowitz, D., and Proctor, L. *Basics of breastfeeding: A mother's guide*. (1983).

*Contact:* Dr. Cutberto Garza, Division of Nutritional Sciences, Cornell University, 127 Savage Hall, Ithaca, NY 14853. (607) 255-2228. \$2.50 for review set of 1 copy each; \$14.50 for set of 10 copies of each pamphlet.

Pima County Health Department, Project BEST. *Breastfeeding: Getting started (Dar pecho: Como emesar)*. (1989). Tucson, AZ: Project BEST, Pima County Health Department.

*Contact:* Becky Melland-Buckley, M.S., R.D., Community Nutrition Division, Pima County Health Department WIC Program, 1121 North El Dorado Place, E200, Tucson, AZ 85713. (602) 296-6207.

Seattle-King County Department of Public Health. *Breastfeeding educational materials*. (1988). Seattle, WA: Seattle-King County Department of Public Health.

*Contact:* Breastfeeding Publications, Seattle-King County Department of Public Health, 100 Prefontaine Avenue South, Suite 500, Seattle, WA 98104. (206) 587-2792.

Texas Department of Health. *You and your baby deserve the best: Breastfeeding ... The give of love*. (1989). Austin, TX: WIC Bureau, Texas Department of Health.

*Contact:* Barbara Kerr, Director, Public Health Nutrition, Community and Rural Health, Texas Department of Health, 1100 West 49th Street, Austin, TX 78756. (512) 458-7785.

University Medical Center. *Breast-feeding your baby in the first weeks (El darle pecho a su bebe durante las primeras semanas)*. (1990). Tucson, AZ: Project BEST, Pima County Health Department.

*Contact:* Becky Melland-Buckley, M.S., R.D., Community Nutrition Division, Pima County Health Department WIC Program, 1121 North El Dorado Place, E200, Tucson, AZ 85713.

#### **Materials for Professionals**

Arango, J. *Promoting breastfeeding: A guide to health professionals working in the WIC and CSF programs*. (1984). Atlanta, GA: Infant Formula Council.

*Contact:* Nutrition and Technical Services Division, Food and Nutrition Service, U.S. Department of Agriculture, 3101 Park Center Drive, Room 607, Alexandria, VA 22302. (703) 305-2585. Single copies available at no charge.

Health Education Associates. *The health ed kit for preventing breastfeeding problems and early failure*. (1985). Glenside, PA: Health Education Associates.

*Contact:* Health Education Associates, Inc., 8 Jan Sebastian Way, Suite 13, Sandwich, MA 02563. (508) 888-8044. \$35.00.

Healthy Mothers, Healthy Babies Coalition Subcommittee on Breastfeeding Promotion. *List of selected state professional organizations and agency contacts for the promotion of breastfeeding*. (n.d.). White Plains, NY: March of Dimes.

*Contact:* Healthy Mothers, Healthy Babies Coalition, 409 12th Street, S.W., Washington, DC 20024. (202) 638-0026.

National Association of WIC Directors. *Guidelines for breastfeeding promotion in the WIC program.* (1990). National Association of WIC Directors.

*Contact:* Kathy A. Dugas, R.D., National Association of WIC Directors, c/o Mississippi WIC Program, 2423 North State Street, Underwood Annex Room 211, Jackson, MS 39215.

National Center for Education in Maternal and Child Health. *Breastfeeding: Abstracts of active projects supported by the Bureau of Maternal and Child Health and Resources Development FY 1989.* (1989). Washington, DC: National Center for Education in Maternal and Child Health.

*Contact:* National Maternal and Child Health Clearinghouse, 38th and R Streets., N.W., Washington, DC 20057. (202) 625-8410 or (703) 821-8955, ext. 254. Available at no charge.

National Center for Education in Maternal and Child Health. *Breastfeeding: Catalog of products from projects supported by the Bureau of Maternal and Child Health and Resources Development 1989.* (1989). Washington, DC: National Center for Education in Maternal and Child Health.

*Contact:* National Maternal and Child Health Clearinghouse, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8410 or (703) 821-8955, ext. 254. Available at no charge.

Nutrition Council of Arizona. *Electric breastpump rental locations.* (1990). Phoenix, AZ: Nutrition Council of Arizona.

*Contact:* Office of Nutrition Services, Arizona Department of Health Services, 1740 West Adams, Phoenix, AZ 85007. Single copies available at no charge.

Sanders, A., Romashko, T., Fleischman, H., Hopstock, P., and Willette, J. *WIC breastfeeding promotion study and demonstration: Phase IV report.* (1990). Alexandria, VA: Food and Nutrition Service, U.S. Department of Agriculture.

*Contact:* Office of Analysis and Evaluation, Food and Nutrition Service, U.S. Department of Agriculture, 3101 Park Center Drive, Room 208, Alexandria, VA 22302. (703) 305-2585. Single copies available at no charge.

South Carolina Department of Health Environmental Control, Division of Children's Health, Breastfeeding Promotion Project. *Resources for physicians to promote breastfeeding.* (1989). Columbia, SC: South Carolina Department of Health and Environmental Control.

*Contact:* Jenny Kirksey, Division of WIC Services, South Carolina Department of Health and Environmental Control, Box 101106, Columbia, SC 29211. (803) 737-3840. Notebook not available for distribution. Detailed table of contents available at no charge.

Steel, A. *Breastfeeding promotion: Observations from a community-based mother-to-mother support project for low-income women in rural Tennessee*. (1990). Bethesda, MD: Center to Prevent Childhood Malnutrition.

*Contact:* Center to Prevent Childhood Malnutrition, 7200 Wisconsin Avenue, Suite 204, Bethesda, MD 20814. (301) 986-5777.

U.S. Department of Agriculture, Food and Nutrition Section, National Advisory Council on Maternal, Infant, and Fetal Nutrition. *Biennial report on the Special Supplemental Food Program for Women, Infants, and Children and on the Commodity Supplemental Food Program*. (1990). Alexandria, VA: Food and Nutrition Service, U.S. Department of Agriculture.

*Contact:* Supplemental Food Programs Division, Food and Nutrition Service, U.S. Department of Agriculture, 3101 Park Center Drive, Alexandria, VA 22302. (703) 305-2746. Single copies available at no charge, limited quantities available.

U.S. Department of Agriculture, Food and Nutrition Service. *Promoting breastfeeding in WIC: A compendium of practical approaches*. (1988). Alexandria, VA: Nutrition and Technical Services Division, U.S. Department of Agriculture.

*Contact:* Nutrition and Technical Services Division, U.S. Department of Agriculture, 3101 Park Center Drive, Room 609, Alexandria, VA 22303. (703) 305-2585.

U.S. Department of Agriculture, National Agricultural Library, Food and Nutrition Information Center and National Association of WIC Directors. *Nutrition education resource guide: An annotated bibliography of educational materials for the WIC and CSF programs*. (1991). Bibliographies and Literature of Agriculture, Number 94. Beltsville, MD: Food and Nutrition Information Center, U.S. Department of Agriculture.

*Contact:* Food and Nutrition Service, Supplemental Food Programs Division, U.S. Department of Agriculture, 3101 Park Center Drive, Alexandria, VA 22302. Single copy available at no charge.

#### **SUPPORT IN THE WORKPLACE**

*This section encompasses any materials related to breastfeeding and employment, including guidelines for breastfeeding working mothers and surveys of employers' breastfeeding policies and benefits.*

Bradley, R. J. *Breastfeeding in the work place*. (1990). Butte, MT: Community Nutrition Resource Center.

*Contact:* Rita J. Bradey, R.D., Community Nutrition Resource Center, P.O. Box 4511, Butte, MT 59702. (406) 723-6387. \$0.11 each for 1 to 99 copies, \$0.10 each for 100 to 999 copies, \$0.09 each for 1,000 or more copies, plus shipping and handling.

Indiana State Board of Health, Indiana Breastfeeding Promotion Project. *What does your business have in common with a breastfed baby?* (1989). Indianapolis, IN: Indiana Breastfeeding Promotion Project, Indiana State Board of Health. *Contact:* Indiana State Board of Health, 1330 West Michigan Street, P.O. Box 1964, Indianapolis, IN 46206-1964. (317) 633-0656.

National Child Nutrition Project. *Breastfed infants and you: A manual for child care providers.* (1988). Philadelphia, PA: National Child Nutrition Project. *Contact:* Librarian, National Center for Education in Maternal and Child Health, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8400. Available for loan.

National Child Nutrition Project. *Breastfeeding and working patient education set.* (1988). Philadelphia, PA: National Child Nutrition Project. *Contact:* Librarian, National Center for Education in Maternal and Child Health, 38th and R Streets, N.W., Washington, DC 20057. (202) 625-8400. Available for loan.

New Mexico Breastfeeding Task Force. *Workplace recommendations for support of breastfeeding.* (n.d.). Santa Fe, NM: New Mexico Health and Environment Department. *Contact:* Sharon Porter, R.D., WIC Breastfeeding Coordinator, New Mexico Health and Environment Department, Santa Fe, NM 87503. (505) 827-2486. Single copies available at no charge.

South Carolina Department of Health Environmental Control, Division of Children's Health, Breastfeeding Promotion Project. *Management of breastfeeding: A helping guide for the professional.* (1989). Columbia, SC: South Carolina Department of Health and Environmental Control. *Contact:* Jenny Kirksey, Division of WIC Services, South Carolina Department of Health and Environmental Control, Box 101106, Columbia, SC 29211. (803) 737-3840.

#### RESEARCH

Baranowski, T., Rassin, D. K., Richardson, C. J., Brown, J. P., and Bee, D. E. *Attitudes toward breastfeeding.* (1986). Baltimore, MD: Williams and Wilkins. *Contact:* Tom Baranowski, Department of Preventive Medicine and Community Health, University of Texas Medical Branch at Galveston, J25, Shearn Moody Plaza, Suite 7020, Galveston, TX 77550.

Bradley, R. J. *Analysis of the potential cost savings of breastfeeding: Medical literature review and assessment.* (n.d.). Butte, MT: Community Nutrition Resource Center. *Contact:* Rita J. Bradley, Community Nutrition Resource Center, P.O. Box 4511, Butte, MT 59702. (406) 723-6387. \$8.00.

- Krasovec, K. *Schema and framework for breastfeeding definitions*. (1990). Washington, DC: Institute for International Studies in Natural Family Planning.  
*Contact:* Miriam Lobbok, M.D., M.P.H., Institute for Reproductive Health, Georgetown University School of Medicine, 3800 Reservoir Road, N.W., Washington, DC 20057. (202) 687-1392. Available at no charge.
- Lobbok, M. H., and Krasovec, K. *Report of a meeting on breastfeeding definitions held by the Interagency Group for Action on Breastfeeding, hosted by UNICEF, April 29, 1988*. (n.d.). Institute Issues Report number 4. Washington, DC: Institute for International Studies in Natural Family Planning.  
*Contact:* Miriam H. Lobbok, M.D., M.P.H., Institute for Reproductive Health, Georgetown University School of Medicine, 3800 Reservoir Road, N.W., Washington, DC 20057. (202) 687-1392. Available at no charge.
- Leddy, T., and Petrone, L. *Determining statewide breastfeeding rates and associated factors*. (1988). Providence, RI: Rhode Island Department of Health.  
*Contact:* Division of Nutrition Services, Rhode Island Department of Health, 75 Davis Street, Providence, RI 02908. (401) 277-2312. Available at no charge.
- Rassin, D. K., Markides, K., Baranowski, T., Richardson, C. J., and Winkler, B. A. *Acculturation and breastfeeding on the United States-Mexico border*. (1990). *Clinical Research*, 38(46A).  
*Contact:* David K. Rassin, Department of Pediatrics, Division of Perinatal Pediatrics, University of Texas Medical Branch at Galveston, Galveston, TX 77550. (409) 761-2815.
- Rassin, D. K., Richardson, C. J., and Baranowski, T. *Ethnic determinants of lactation in a population of mothers in the United States*. (1986). Plenum Publishing.  
*Contact:* David K. Rassin, Ph.D., Department of Pediatrics, Division of Perinatal Pediatrics, University of Texas Medical Branch at Galveston, Galveston, TX 77550. (409) 761-2815.
- Ruder, Finn, and Rotman. *Public attitudes toward breastfeeding: Healthy Mothers, Healthy Babies nationwide survey*. (1986). Washington, DC: Healthy Mothers, Healthy Babies Coalition.  
*Contact:* Healthy Mothers, Healthy Babies Coalition, 409 12th Street, S.W., Room 523, Washington, DC 20024-2188. (202) 863-2458.



**APPENDIX F:  
HEALTHY PEOPLE 2000 NATIONAL HEALTH PROMOTION AND  
DISEASE PREVENTION OBJECTIVES: BREASTFEEDING OBJECTIVE**

- 14.9\* 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. (Baseline: 54 percent at discharge from birth site and 21 percent at 5 to 6 months in 1988).

**SPECIAL POPULATION TARGETS**

<b>Mothers Breastfeeding Their Babies:</b>	<b>1988 Baseline</b>	<b>2000 Target</b>
<i>During Early Postpartum Period—</i>		
14.9a Low-income mothers	32%	75%
14.9b Black mothers	25%	75%
14.9c Hispanic mothers	51%	75%
14.9d American Indian/Alaska Native mothers	47%	75%
<i>At Age 5–6 Months—</i>		
14.9a Low-income mothers	9%	50%
14.9b Black mothers	8%	50%
14.9c Hispanic mothers	16%	50%
14.9d American Indian/Alaska Native mothers	28%	50%

*Baseline data sources:* Ross Laboratories Mothers Survey; for American Indians and Alaska Natives, Pediatric Nutrition Surveillance System, CDC.

Breastfeeding is the optimal way of nurturing full-term infants while simultaneously benefitting the lactating mothers. The advantages of breastfeeding range from biochemical, immunologic, enzymatic, and endocrinologic to psychosocial, developmental, hygienic, and economic. Human milk contains the ideal balance of nutrients, enzymes, immunoglobulin, anti-infective and anti-inflammatory substances, hormones, and growth factors. Further, breast milk changes to match the changing needs of the infant. Breastfeeding provides a time of intense maternal-infant interaction. Lactation also facilitates the physiologic return to the prepregnant state for the mother while suppressing ovulation for many.

Although breastfeeding is strongly recommended, it is not appropriate for babies whose mothers use drugs such as cocaine, PCP, or marijuana, take more than minimal amounts of alcohol, or who receive certain therapeutic or diagnostic agents such as radioactive elements and cancer chemotherapy. Women who are HIV positive should also avoid breastfeeding.

Analysis of data from Ross Laboratories Mothers Survey indicates that breastfeeding rates continue to be highest among women who are older, well educated, relatively affluent, and/or who live in the Western United States (71 percent at discharge from birth site and 31 percent at 5 to 6 months). Among those least likely to breastfeed are women who are low-income, black, less than age 20, and/or who live in the Southeastern United States. Low income and black women should receive special attention because they have low rates of breastfeeding and are a significant proportion of all new mothers (approximately 25 percent and 17 percent, respectively).

An important barrier to achieving this objective is the general absence of work policies and facilities that support lactating women. Given the large percentage of mothers of young children who work outside the home, efforts to increase breastfeeding should focus on convincing employers to provide assistance such as extended maternity leave, part-time employment, provision of facilities for pumping breast milk or breastfeeding, and onsite child care. Another important barrier is portrayal of bottle rather than breastfeeding as the norm in American society and the absence of breastfeeding incentives and support for low-income women. Overcoming these barriers will require public and professional education, improved support from health care providers and employers, and the involvement of culturally sensitive social, religious, and professional groups. The media can play an important role by more frequently portraying breastfeeding as the norm.

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\*This objective also appears as objective 2.11 in *Nutrition*.

Source: U.S. Department of Health and Human Services. (1990). *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. DHHS Publication No. (DHS) 91-50213. Washington, DC: U.S. Government Printing Office.

**APPENDIX G**  
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**APPENDIX H**  
**NATIONAL ASSOCIATION OF WIC DIRECTORS**  
**GUIDELINES FOR BREASTFEEDING PROMOTION IN**  
**THE WIC PROGRAM**

*The National Association of WIC Directors Committee on Breastfeeding Promotion, with approval from the Board of Directors, has developed these guidelines to assist state and local agencies in initiating and/or strengthening existing breastfeeding promotion and support programs.*

**GUIDELINE 1:** Breastfeeding is enhanced when local agency WIC staff receive orientation and task-appropriate training on breastfeeding promotion and support.

**Suggestions for Implementation**

1. It is important to develop orientation guidelines for new WIC employees that address:

- clinic environment policies
- program goals and philosophy regarding breastfeeding
- task appropriate information

*Rationale:* All new employees (support staff, paraprofessionals, and professionals) must be familiar with program policies, goals, and philosophy regarding breastfeeding. When all program staff project a positive attitude about breastfeeding, clients will be more comfortable discussing their breastfeeding questions and concerns. Clients will also be more likely to initiate breastfeeding and breastfeed for longer duration.

2. It is important that the state agency develop guidelines for ongoing training that address:

- culturally appropriate breastfeeding promotion strategies
- current breastfeeding management techniques to encourage and support the breastfeeding mother and infant
- appropriate use of breastfeeding education materials

*Rationale:* Ongoing training for staff providing breastfeeding education is needed because information about breastfeeding management continues to evolve. Addressing specific ethnic and culturally based needs fosters appropriately targeted messages in print and audiovisual materials.

3. It is important that local agency staff participate in breastfeeding training such as:

- conferences, workshops, and programs
- statewide and local events
- events sponsored by other agencies and organizations

*Rationale:* Local agencies' participation in breastfeeding training is essential to successful implementation of breastfeeding promotion programs.

**GUIDELINE 2:** Breastfeeding is enhanced when policies are developed that encourage a positive clinic environment and that endorse breastfeeding as the preferred method of infant feeding.

**Suggestions for Implementation**

1. It is important to assure that relevant educational materials available to participants portray breastfeeding as the preferred infant feeding method in a manner that is culturally and aesthetically appropriate for the population group. Consider:

- print and audiovisual materials free of formula product names
- office supplies such as cups, pens, and notepads free of formula product names

*Rationale:* Use of materials with product names sends a mixed message to clients and staff and might unconsciously put up barriers to breastfeeding.

2. It is important to establish a positive attitude toward breastfeeding in WIC clinics.

*Rationale:* Health care workers should be careful not to communicate overt or subtle endorsements of formula. Such messages may influence a mother's decision about infant feeding or her breastfeeding pattern.

3. It is important that the local agency minimize the visibility of formula. Consider storing supplies of formula out of view of participants.

*Rationale:* Formula in clear view of participants may influence a mother's decision on infant feeding.

4. It is important that staff not accept formula from formula manufacturer representatives for personal use.

*Rationale:* Acceptance of formula for personal use may influence staff to endorse a particular product, either consciously or unconsciously.

5. It is important that the local agency try to provide a supportive environment in which women feel comfortable breastfeeding their infants. Consider:

- chairs with arms
- a breastfeeding area away from entrance

*Rationale:* The clinic waiting area can be used advantageously to motivate women to recognize breastfeeding as the "norm" rather than the exception.

**GUIDELINE 3:** Breastfeeding is enhanced when WIC agencies coordinate with private and public health care systems, educational systems, and community organizations providing care and support for women, infants, and children.

**Suggestions for Implementation**

1. It is important to participate in coordination activities with appropriate groups such as:

- networks or steering committees to exchange information and strategies
- professional health organizations to secure resources and expertise and assure communication with health professionals serving pregnant and breastfeeding women
- existing peer support groups to facilitate local exchange of breastfeeding information across the state

*Rationale:* A collaborative approach to breastfeeding promotion can create a strong supportive climate and help ensure more effective use of all available resources.

2. It is important that the state agency disseminate appropriate policies such as the NAWD position paper, *Breastfeeding Promotion in the WIC Program*, to groups such as:

- American Academy of Pediatrics
- American Academy of Family Physicians
- American College of Obstetricians and Gynecologists
- American Dietetic Association
- American Hospital Association
- American Nurses Association
- American Public Health Association
- Association of Pediatric Nurse Practitioners
- International Lactation Consultants Association
- American College of Nurse Midwives
- La Leche League International
- Maternal and Child Health Directors
- Medicaid Directors
- Indian Health Service
- National Association of Pediatric Nurse Associates and Practitioners

*Rationale:* Serving as an adjunct to health care is a vital component of the WIC program. Therefore, it is important that the program's health-related policies be shared with appropriate health care programs and professional organizations. Such interaction helps to encourage a strong cooperative working relationship with the health community to accomplish mutual goals.

**GUIDELINE 4:** Breastfeeding is enhanced when positive breastfeeding messages are incorporated in relevant educational activities, materials, and outreach efforts.

**Suggestions for Implementation**

1. It is important that positive breastfeeding messages are used in:

- participant orientation programs and materials
- printed and audiovisual materials for professional audiences
- printed, audiovisual, and display materials for potential clients

*Rationale:* Including positive breastfeeding messages promotes breastfeeding as the preferred infant feeding choice and reinforces WIC's position on breastfeeding.

**GUIDELINE 5:** Breastfeeding is enhanced when activities are evaluated on an annual basis.

**Suggestions for Implementation**

1. It is important that evaluation include measures of incidence and duration such as:

- incorporation of data collection into current WIC systems
- sample surveys
- Center for Disease Control surveillance systems
- state surveillance systems
- birth certificate information

*Rationale:* Since few data are available, data collection will help identify and direct further breastfeeding promotion efforts for this population. Assessment of successful strategies will help agencies measure progress toward meeting the health objectives for the Nation.

2. It is important that questions regarding breastfeeding attitudes and the WIC program's breastfeeding support activities are included in the annual participant survey.

*Rationale:* Collecting data on breastfeeding attitudes and WIC-related promotion activities about breastfeeding will help state and local agencies design more effective breastfeeding promotion programs.

3. If more indepth information on the incidence and duration of breastfeeding is desired, it is important that information be collected on at least the following categories:

- exclusive breastfeeding
- patterns of combined breastfeeding and formula feeding (e.g., mostly breastfeeding)
- equal parts breastfeeding and formula feeding



- mostly formula feeding
- exclusive formula feeding

*Rationale:* Collecting data on breastfeeding patterns gives a better picture of WIC's population. This will help States better focus their breastfeeding promotion activities.

**GUIDELINE 6:** Breastfeeding is enhanced when appropriate breastfeeding education and support is offered to all pregnant WIC participants.

**Suggestions for Implementation**

1. It is important that a breastfeeding protocol is established to:

- integrate breastfeeding promotion into the continuum of prenatal nutrition education
- include an initial assessment of participant knowledge, concerns, and attitudes related to breastfeeding
- provide breastfeeding education and support sessions to each prenatal participant based on the above assessment
- define the roles of all staff in the promotion of breastfeeding
- define situations when breastfeeding is contraindicated

*Rationale:* Making informed choices regarding the best method of infant feeding is dependent on staff's ability and efforts to address women's needs and concerns throughout the prenatal period.

2. It is important to develop a mechanism to incorporate positive peer influence into the prenatal period, such as:

- peer counselors
- an honor roll of successful breastfeeding WIC participants
- an opportunity to watch other WIC participants breastfeed

*Rationale:* Positive peer influence has been shown to be a factor in a woman's decision to breastfeed.

3. It is important to include the participant's family and friends in breastfeeding education and support sessions.

*Rationale:* Assistance and emotional support from family and friends are helpful to a woman's initiation and continuation of breastfeeding.

4. It is important to encourage the mother to communicate her decision to breastfeed to appropriate hospital staff and physician.

*Rationale:* To overcome potential barriers due to hospital and physician practices, women should be aware of the need to request the services that will facilitate successful breastfeeding; e.g., baby put to the breast within first hour after delivery.

**GUIDELINE 7: Breastfeeding is enhanced when policies allow breastfeeding women to receive all WIC services regardless of their breastfeeding patterns.**

**Suggestions for Implementation**

1. It is important that eligible women who meet the definition of breastfeeding\* be certified to the extent that caseload management permits.

*Rationale:* Breastfeeding women are among the highest priority groups of WIC participants.

2. It is important that breastfeeding women receive a food package consistent with their nutritional needs.

*Rationale:* Breastfeeding women have the highest nutritional needs of any category of women participants and should receive a food package to meet those needs.

3. It is important that breastfeeding women receive support and assistance in order to maintain or increase breastfeeding.

*Rationale:* All breastfeeding women regardless of breastfeeding pattern need ongoing support so that they feel positive about their breastfeeding experience.

**GUIDELINE 8: Breastfeeding is enhanced when policies allow breastfeeding infants to receive a food package consistent with their nutritional needs.**

**Suggestions for Implementation**

1. It is important that the use of supplemental formula for breastfed infants be minimized.

*Rationale:* Support that encourages breastfeeding is more effective than offering more formula than the baby is currently using. Clear support which continues to build confidence would include praise and encouragement for her current level of breastfeeding.

2. It is important that vouchers are not issued to exclusively breastfed infants. If a food instrument must be distributed to enroll the infant, consider printing a positive breastfeeding message on the voucher.

*Rationale:* A blank voucher emphasizes that the breastfeeding dyad may not be receiving as much food as the formula feeding dyad and makes the mother feel as though she is missing out on some of the food available to her. A voucher with even a small amount of formula on it sends a message to the mother that she is expected to supplement. A positive breastfeeding message will reinforce the importance of breastfeeding.

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\* Proposed definition: The practice of feeding a mother's breast milk to her infant(s) on the average of at least once a day.

3. It is important to encourage the issuance of vouchers for powdered formula to breastfeeding mothers who wish to supplement.

*Rationale:* Powdered formula can be prepared in as small a quantity as needed. However, the minimum amount of the concentrated fluid formula that can be prepared is 26 ounces. This amount must be used within 48 hours which could encourage more supplementation than originally intended.

4. It is important that breastfeeding women receive information about the potential impact of formula on lactation and breastfeeding before formula is given.

*Rationale:* Breastfeeding mothers may not fully understand the impact formula supplementation has on breast milk supply. This is especially important during the first few critical weeks when the milk supply is being established.

5. It is important that formula vouchers or samples be given only when specifically requested.

*Rationale:* Offering formula to a breastfeeding woman undermines her confidence that she can breastfeed successfully, particularly in the first few weeks. She also may find it difficult to refuse the free formula even though she had not planned to use it.

**GUIDELINE 9:** Breastfeeding is enhanced when breastfeeding support and assistance is provided throughout the postpartum period, particularly at critical times when the mother is most likely to need assistance.

#### **Suggestions for Implementation**

1. It is important to develop a plan to provide women with access to locally available breastfeeding support programs, making sure support is available early in the postpartum period and throughout lactation to:

- include professional support, such as management of lactation problems, hotline contacts, and telephone counselors
- include peer support, such as peer counselors and resource mothers

*Rationale:* Professional support programs assist the mother experiencing lactation problems to resolve questions and problems with lactation management. Peer support programs use individuals who have successfully breastfed an infant and who express a positive, enthusiastic viewpoint of breastfeeding.

2. It is important to provide or identify education and support for breastfeeding women in special situations. Consider:

- supporting working mothers, mothers returning to school, and hospitalized mothers and infants
- offering support programs at times in keeping with the mother's schedule

*Rationale:* Breastfeeding mothers who are separated from their infants need support programs which include situation-specific information and support.

3. It is important that postpartum contacts with breastfeeding women provide positive reinforcement for the continuation of breastfeeding. Consider:

- using appropriate posters and messages placed in the clinic waiting and nutrition education areas
- including a special breastfeeding message encouraging the continuation of breastfeeding on food instruments

*Rationale:* Encouragement from professional staff and peers can provide motivation to succeed at breastfeeding.

4. It is important to coordinate breastfeeding support with other health care programs such as:

- Maternal and Child Health
- Family Planning
- Hospitals
- Indian Health Service
- Community health care providers

*Rationale:* Collaborative relationships result in consistent messages supporting breastfeeding, more efficient services, and decreased lactation problems, and reach a larger number of women. These efforts will have a more far-reaching effect as the incidence of breastfeeding increases.

**APPENDIX I**  
**INNOCENTI DECLARATION**

**INNOCENTI DECLARATION**  
**ON THE PROTECTION, PROMOTION AND SUPPORT OF BREASTFEEDING**

**RECOGNIZING THAT**

**Breastfeeding is a unique process that:**

- provides ideal nutrition for infants and contributes to their healthy growth and development;
- reduces incidence and severity of infectious diseases, thereby lowering infant morbidity and mortality;
- contributes to women's health by reducing the risk of breast and ovarian cancer, and by increasing the spacing between pregnancies;
- provides social and economic benefits to the family and the nation;
- provides women with a sense of satisfaction when successfully carried out; and that

**Recent research has found that:**

- these benefits increase with increased exclusiveness<sup>1</sup> of breastfeeding during the first six months of life, and thereafter with increased duration of breastfeeding with complementary foods, and
- programme interventions can result in positive changes in breastfeeding behaviour;

**WE THEREFORE DECLARE THAT**

As a global goal for optimal maternal and child health and nutrition, all women should be enabled to practice exclusive breastfeeding and all infants should be fed exclusively on breast milk from birth to 4–6 months of age. Thereafter, children should continue to be breastfed, while receiving appropriate and adequate complementary foods, for up to two years of age or beyond. This child-feeding ideal is to be achieved by creating an appropriate environment of awareness and support so that women can breastfeed in this manner.

Attainment of the goal requires, in many countries, the reinforcement of a "breastfeeding culture" and its vigorous defence against incursions of a "bottle-feeding culture." This requires commitment and advocacy for social mobilization, utilizing to the full the prestige and authority of acknowledged leaders of society in all walks of life.

Efforts should be made to increase women's confidence in their ability to breastfeed. Such empowerment involves the removal of constraints and influences that manipulate perceptions and behaviour towards breastfeeding, often by subtle and indirect means. This requires sensitivity, continued

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<sup>1</sup> Exclusive breastfeeding means that no other drink or food is given to the infant; the infant should feed frequently and for unrestricted periods.

vigilance, and a responsive and comprehensive communications strategy involving all media and addressed to all levels of society. Furthermore, obstacles to breastfeeding within the health system, the workplace and the community must be eliminated.

Measures should be taken to ensure that women are adequately nourished for their optimal health and that of their families. Furthermore, ensuring that all women also have access to family planning information and services allows them to sustain breastfeeding and avoid shortened birth intervals that may compromise their health and nutritional status, and that of their children.

All governments should develop national breastfeeding policies and set appropriate national targets for the 1990s. They should establish a national system for monitoring the attainment of their targets, and they should develop indicators such as the prevalence of exclusively breastfed infants at discharge from maternity services, and the prevalence of exclusively breastfed infants at four months of age.

National authorities are further urged to integrate their breastfeeding policies into their overall health and development policies. In so doing they should reinforce all actions that protect, promote, and support breastfeeding within complementary programmes such as prenatal and perinatal care, nutrition, family planning services, and prevention and treatment of common maternal and childhood diseases. All healthcare staff should be trained in the skills necessary to implement these breastfeeding policies.

#### OPERATIONAL TARGETS:

**All governments by the year 1995 should have:**

- appointed a national breastfeeding coordinator of appropriate authority, and established a multisectoral national breastfeeding committee composed of representatives from relevant government departments, nongovernmental organizations, and health professional associations;
- ensured that every facility providing maternity services fully practices all ten of the "Ten Steps to Successful Breastfeeding" set out in the joint WHO/UNICEF statement *Protecting, promoting and supporting breast-feeding: the special role of maternity services*;
- taken action to give effect to the principles and aim of all *Articles of the International Code of Marketing of Breast-milk Substitutes* and subsequent relevant World Health Assembly resolutions in their entirety; and
- enacted imaginative legislation protecting the breastfeeding rights of working women and established means for its enforcement.

#### WE ALSO CALL UPON INTERNATIONAL ORGANIZATIONS TO:

- draw up action strategies for protecting, promoting, and supporting breastfeeding, including global monitoring and evaluation of their strategies;
- support national situation analyses and surveys and the development of national goals and targets for action; and
- encourage and support national authorities in planning, implementing, monitoring, and evaluating their breastfeeding policies

**APPENDIX J**  
**WHO/UNICEF'S TEN STEPS TO SUCCESSFUL BREAST-FEEDING**  
**AND CHECKLIST FOR EVALUATING THE ADEQUACY OF SUPPORT FOR BREAST-FEEDING**  
**IN MATERNITY HOSPITALS, WARDS, AND CLINICS**

**TEN STEPS TO SUCCESSFUL BREAST-FEEDING**

Every facility providing maternity services and care for newborn infants should:

1. Have a written breast-feeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breast-feeding.
4. Help mothers initiate breast-feeding within a half-hour of birth.
5. Show mothers how to breast-feed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless *medically* indicated.
7. Practise rooming-in—allow mothers and infants to remain together—24 hours a day.
8. Encourage breast-feeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breast-feeding support groups and refer mothers to them on discharge from the hospital or clinic.

**WHO/UNICEF'S CHECKLIST FOR EVALUATING THE ADEQUACY OF SUPPORT FOR BREAST-FEEDING IN MATERNITY HOSPITALS, WARDS, AND CLINICS\***

The following check-list has been prepared for use by the competent authorities in countries—health and nutrition policymakers; managers of maternal and child health and family planning services; clinicians, midwives, nursing personnel and other support staff in maternity services and facilities for the care of newborn infants; health workers' organizations; and mothers' support groups. It is intended to be a suggestive rather than exhaustive inventory of the kinds of practical steps that can be taken within and through maternity services to protect, promote and support breast-feeding, and should be used in conjunction with the main text of the joint WHO/UNICEF statement. Under ideal circumstances, the answer to all of the questions in the check-list will be "Yes." A negative reply may indicate an inappropriate practice or routine that should be modified in accordance with the statement.

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\* Hereinafter collectively referred to as "health care facilities."

### **Policy**

1. Does the health care facility have an explicit policy for protecting, promoting and supporting breast-feeding
2. Is this policy communicated to those responsible for managing and providing maternity services (for example in oral briefings when new staff are employed; in manuals, guidelines and other written materials; or by supervisory personnel)?
3. Is there a mechanism for evaluating the effectiveness of the breast-feeding policy? For example:
  - Are data collected on the prevalence of breast-feeding initiation and breast-feeding at the time of discharge of mothers and their infants from the health care facility?
  - Is there a system for assessing related health care practices and training and promotional materials, including those commonly used by antenatal and postnatal services?
4. Are the cooperation and support of all interested parties, particularly health care providers, breast-feeding counsellors and mothers' support groups, but also the general public, sought in developing and implementing the health care facility's breast-feeding policy.

### **Staff Training**

5. Are all health care staff well aware of the importance and advantages of breast-feeding and acquainted with the health care facility's policy and services to protect, promote and support breast-feeding?
6. Has the health care facility provided specialized training in lactation management to specific staff members?

### **Structure and Functioning of Services**

7. Do antenatal records indicate whether breast-feeding has been discussed with a pregnant woman? Is it noted:
  - Whether a woman has indicated her intention to breastfeed?
  - Whether her breasts have been examined?
  - Whether her breast-feeding history has been taken?
  - How long and how often she has already breast-fed?
  - Whether she previously encountered any problems and, if so, what kind?
  - What type of help she received, if any, and from whom?
8. Is a mother's antenatal record available at the time of delivery?
  - If not, is the information in point 7 nevertheless communicated to the staff of the health care facility?



- Does a woman who has never breast-fed, or who has previously encountered problems with breast-feeding, receive special attention and support from the staff of the health care facility?
9. Does the health care facility take into account a woman's intention to breast-feed when deciding on the use of a sedative, an analgesic or an anaesthetic, if any, during labour and delivery?
- Are staff familiar with the effects of such medicaments on breast-feeding?
10. In general, are newborn infants:
- Shown to their mothers within 5 minutes after completion of the second stage of labour?
  - Shown/given to their mothers before silver nitrate or antibiotic drops are administered prophylactically to the infants' eyes?
  - Given to their mothers to hold and put to the breast within a half-hour of completion of the second stage of labour, and allowed to remain with them for at least one hour?
11. Does the health care facility have a rooming-in policy? That is, do infants remain with their mothers throughout their stay?
- Are mothers allowed to have their infants with them in their beds?
  - If the infants stay in cots, are these placed close to the mothers' beds?
  - If rooming-in applies only during daytime hours, are infants at least brought frequently (every 3-4 hours) to their mothers at night?
12. Is it the health care facility's policy to restrict the giving of prelacteal feeds, that is any food or drink other than breast milk, before breast-feeding has been established?

#### **Health Education**

13. Are all expectant mothers advised on nutritional requirements during pregnancy and lactation, and on the dangers associated with the use of drugs?
14. Are information and education on breast-feeding routinely provided to pregnant women during antenatal care?
15. Are staff members or counsellors who have specialized training in lactation management available full time to advise breast-feeding mothers during their stay in the health care facility and in preparation for their discharge? Are mothers informed:
- About the physiology of lactation and how to maintain it?
  - How to prevent and manage common problems like breast engorgement and sore or cracked nipples?
  - Where to turn, for example to breast-feeding support groups, to deal with these or related problems? (Do breast-feeding support groups have access to the health care facility?)

16. Are support and counselling on how to initiate and maintain breast-feeding routinely provided for women who:

- Have undergone caesarean section?
- Have delivered prematurely?
- Have delivered low-birth-weight infants?
- Have infants who are in special care for any reason?

17. Are breast-feeding mothers provided with printed materials that give relevant guidance and information?

#### **Discharge**

18. If "discharge packs" containing baby- and personal-care products are provided to mothers when they leave the hospital or clinic, is it the policy of the health care facility to ensure that they contain nothing that might interfere with the successful initiation and establishment of breast-feeding, for example feeding bottles and teats, pacifiers and infant formula?

19. Are mothers or other family members, as appropriate, of infants who are not fed on breast milk given adequate instructions for the correct preparation and feeding of breast-milk substitutes, and a warning against the health hazards of incorrect preparation?

- Is it the policy of the health care facility not to give such instructions in the presence of breast-feeding mothers?

20. Is every mother given an appointment for her first follow-up visit for postnatal and infant care?

- Is she informed how to deal with any problems that may arise meanwhile in relation to breast-feeding?

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*Source: World Health Organization. (1989). Protecting, promoting, and supporting breast-feeding: The special role of maternity services [a joint WHO/UNICEF statement]. Geneva, Switzerland: World Health Organization.*

**APPENDIX K**  
**RESEARCH ON HUMAN LACTATION AND BREASTFEEDING**  
**SUPPORTED BY THE NATIONAL INSTITUTES OF HEALTH,**  
**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES\***

**PHYSIOLOGY OF LACTATION**

"Effect of Lactation on Bone," M. F. Sowers, University of Michigan, Ann Arbor, MI.

"Effects of Exercise on Lactation Performance in Humans," K. G. Dewey, University of California, Davis, CA.

"Evaluation of Lactation Performance," K. J. Motil, Baylor College of Medicine, Houston, TX.

"Human Mammary Cell Growth and Function in Defined Media," R. G. Ham, University of Colorado at Boulder, Boulder, CO.

"Milk Production in Mothers of Preterm Infants: Single vs. Bilateral Pump," D. Jurdi-Haldeman, Case Western Reserve University, Cleveland, OH.

"Novel Evaluation of Lactation Performance," C. Garza, Cornell University at Ithaca, Ithaca, NY.

"Nutrient Transfer into Human Milk," K. J. Motil, Baylor College of Medicine, Houston, TX.

"Physiological Factor Affecting Human Lactation," M. C. Neville, University of Colorado Health Sciences Center, Denver, CO.

"Prematurity and Lactation: Role of Prolactin," R. Ehrenkranz, Yale University, New Haven, CT.

"The Effect of Smoking on Lactation," P. M. Kuhnert, Case Western Reserve University, Cleveland, OH.

"Vitamin A Transport During Lactation," A. C. Ross, Medical College of Pennsylvania, Philadelphia, PA.

"X-Ray Structural Studies of Lactoferrin," E. N. Baker, Massey University, Palmerston North, New Zealand.

**MATERNAL NUTRITION ASPECTS**

"Alcohol Consumption, Lactation, and Breast Cancer Risk," R. MacMahon and P. A. Newcomb, Harvard University, MA, and University of Wisconsin, Madison, WI.

"Antenatal Education and Women's Choice of Infant Feeding Method," M. Franklin, Case Western Reserve University, Cleveland, OH.

"Effect of Lactation and Diet on Calcium Metabolism," B. L. Specker, Children's Hospital Medical Center, Cincinnati, OH.

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*Source:* Federal Human Nutrition Research and Information Management System, 1989.

\* Research on human lactation and breastfeeding supported by the Maternal and Child Health Bureau, DHHS, through its special projects of regional and national significance (SPRANS) program is described in the seventh chapter (see page 44).

"Levels of Dietary Intake for Various Nutrients," C. W. Callaway, National Academy of Sciences, Washington, DC.

"Maternal B-6 Deficiency," T. R. Guilarte, Johns Hopkins University, Baltimore, MD.

"Maternal Calorie Restriction on Breast Milk Production," L. B. Dusdieker, University of Iowa, Iowa City, IA.

"Maternal Zinc Status During Lactation Growth of the Breast Fed Infant," M. K. Hambridge, University of Colorado Health Sciences Center, Denver, CO.

"Sex Hormone Effects on Intestinal Calcium Absorption," M. L. Thomas, University of Texas Medical Branch, Galveston, TX.

"Studies of Zinc Absorption During Pregnancy and Lactation," M. K. Hambridge, University of Colorado Health Sciences Center, Denver, CO.

"Zinc Absorption in Pregnant and Lactating Women," M. K. Hambridge, University of Colorado Health Sciences Center, Denver, CO.

#### INFANT PHYSIOLOGY

"Amino Acid Interrelations in Human Metabolic Disease," L. Sweetman, University of California, San Diego, CA.

"Effects of Human Milk Associated Growth Modulators on Neuronal Development," J. A. Sturman, Institute for Basic Research in Developmental Disabilities, New York, NY.

"Maturation of Intestinal Host Defenses," A. W. Walker, Children's Hospital, Boston, MA.

"Nutrition and Metabolism—Abetalipoproteinemia," D. R. Illingworth, Oregon Health Sciences University, Portland, OR.

"Vitamin A Transport System," D. E. Ong, Vanderbilt University, Nashville, TN.

#### INFANT NUTRITION ASPECTS

"Body Composition of Infants Fed Human Milk or Similac with Iron," W. J. Klish, Baylor College of Medicine, Houston, TX.

"Effects of Perinatal Factors on Breast Feeding Outcomes," L. R. Cronenwett, Dartmouth College, Hanover, NH.

"Epidemiology of Infant Feeding Dynamics," B. M. Popkin, University of North Carolina, Chapel Hill, NC.

"Human Milk in Preterm Infants: Effects of Supplementation," E. E. Ziegler, University of Iowa, Iowa City, IA.

"Human Requirement for Biotin," D. M. Mock, University of Iowa, Iowa City, IA.

"Human Zinc Deficiency," M. K. Hambridge, University of Colorado Health Sciences Center, Denver, CO.

"Navajo Infant Feeding Project," A. L. Wright, University of Arizona, Tucson, AZ.

"Role of Human Milk in Infant Nutrition and Health," L. K. Pickering, University of Texas Health Sciences Center, Houston, TX.

"Selenium Nutriture of the Neonate," R. Ehrenkranz, Yale University, New Haven, CT.

"Vitamin D Requirement of Infants," B. W. Hollis, Medical University of South Carolina, Charleston, SC.

"Zinc Absorption in Very Low Birth Weight Preterm Infants," M. K. Hambridge, University of Colorado Health Sciences Center, Denver, CO.

#### COMPOSITION OF HUMAN MILK

"Human Milk BAL—Structure and Physiological Function," C. Wang, Oklahoma Medical Research Foundation, Oklahoma City, OK.

"Human Milk Selenium Content and Distribution," M. F. Picciano, University of Illinois Urbana-Champaign, Champaign, IL.

"Milk Enzymes, Origin and Distribution," M. Hamosh, Georgetown University, Washington, DC.

"Significance of Folate-Binding Proteins in Human Milk," A. C. Antony, Indiana University-Purdue University, Indianapolis, IN.

"Sources of Human Milk Fat," K. J. Motil, Baylor College of Medicine, Houston, TX.

#### EFFECT OF ENVIRONMENTAL EXPOSURES

"Human Exposure to Halogenated Aromatic Compounds," W. J. Rogan, National Institute of Environmental Health Sciences? (NIEHS), Research Triangle, NC.

"Meperidine and Local Anesthetics in Breastmilk," E. H. Phillipson, Case Western Reserve University, Cleveland, OH.

#### IMMUNOLOGICAL ASPECTS

"Image Analysis System: Role of Human Milk in Protection of Infant Against Diarrheal Disease," D. S. Newburg, Eunice Kennedy Shriver Center for Mental Retardation, Waltham, MA.

**APPENDIX L**  
**RESEARCH ON HUMAN LACTATION AND BREASTFEEDING SUPPORTED**  
**BY THE U.S. DEPARTMENT OF AGRICULTURE**

**PHYSIOLOGY OF LACTATION**

"Beneficial Effects of Human Milk on the Intestine of Infants," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Effects of Nutritional Insufficiency on Cellular Maturation and Function," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Functional Role of Human Milk Proteins," W. Hutchens, Baylor College of Medicine, Houston, TX.

"Protein Metabolism in Lactating Women," B. L. Nichols, Baylor College of Medicine, Houston, TX.

**MATERNAL NUTRITION ASPECTS**

"Amino Acid Needs for Reproduction and Growth," T. Davis and F. P. Horn, Baylor College of Medicine, Houston, TX.

"Bioavailability of Vitamin B-6 and Interaction with Minerals," R. D. Reynolds, Agricultural Research Service, Beltsville, MD.

"Dietary Lipid Requirements for Optimal Development and Health," D. Hachey and F. P. Horn, Baylor College of Medicine, Houston, TX.

"Influence of Trace Element Nutriture on Physical Performance and Body Composition," L. M. Klevay, Agricultural Research Service, Grand Fork, ND.

"Maternal and Dietary Determinants of Infant Selenium Nutrition," M. F. Picciano, Human Resources/Family Studies, University of Illinois, Urbana, IL.

"Maternal and Infant Nutrition," C. Garza, Cornell University, Ithaca, NY.

"Maternal versus Infant Factors Related to Lactational Performance," K. G. Dewey, Agricultural Experimental Station, University of California, Davis, CA.

"Metabolic Fate of Omega-3 and Omega-6 Polyunsaturated Fatty Acids," R. O. Adlof, Northern Regional Research Center, Peoria, IL.

"The Role of Dietary Fat in the Production of Human Milk Fat," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Vitamin A and Lactation," K. M. Rasmussen, Nutrition Sciences, Cornell University, Ithaca, NY.

"Vitamin and Mineral Nutritional Assessment in Pregnancy and Lactation," A. Kirksey, Agricultural Experimental Station, Purdue University, West Lafayette, IN.

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Source: Federal Human Nutrition Research and Information Management System, 1989.

#### **INFANT PHYSIOLOGY**

"Amino Acid Responses of Infants Fed Human Milk or Artificial Formulas," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Development of a Model for Assessing the Functional Significance of Feeding Human Milk," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Energy Contribution of Specific Food Components," F. P. Horn and P. L. Klein, Baylor College of Medicine, Houston, TX.

"Energy Needs and Expenditure During Growth and Reproduction," W. P. Sheng, Baylor College of Medicine, Houston, TX.

"Measurement of Energy Expenditure of Infants," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Measurement of Human Energy Expenditure Using 2H2180 Labeled Water," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Proteolytic Degradation of Human Milk Lactoferrin in Infants," B. L. Lonnerdal, Agricultural Experimental Station, University of California, Davis, CA.

"Studies of Body Composition," B. L. Nichols, Baylor College of Medicine, Houston, TX.

#### **INFANT NUTRITION ASPECTS**

"Bioavailability and Function of Minerals," C. M. Weaver, School of Consumer and Family Science, Purdue University, West Lafayette, IN.

"Comparison of Nutrient Intake and Growth of Breast- Versus Formula-Fed Infants," K. G. Dewey, Agricultural Experimental Station, University of California, Davis, CA.

"Determination of Nutrient Intake of Infants Receiving Human Milk and Solid Foods," B. L. Nichols, Baylor College of Medicine, Houston, TX.

"Maternal and Infant Nutrition," C. Garza, Cornell University, Ithaca, NY.

#### **COMPOSITION OF HUMAN MILK**

"Biotin in Human Milk," D. M. Mock, University of Iowa, Iowa City, IA.

#### **HUMAN MILK BANKS**

"Processing and Storage of Human Milk: Deaeration, Flexible Packaging, and Rapid Heating Methods," R. R. Eitenmiller, Agricultural Experiment Station, University of Georgia, Athens, GA.



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