

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

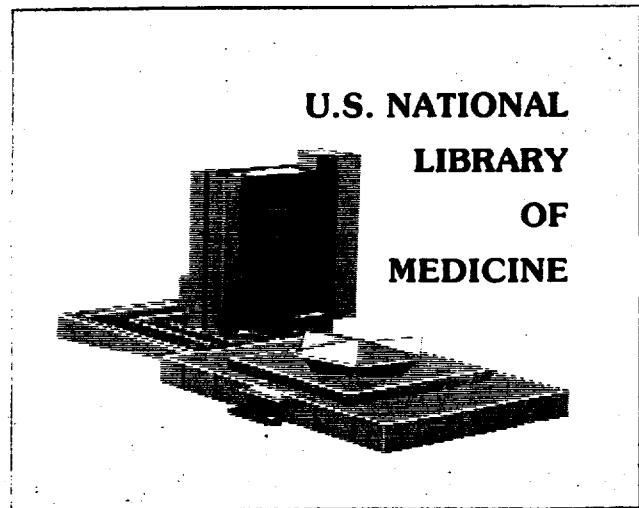


Presented by the

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Health Resources and Services Administration
Bureau of Health Care Delivery and Assistance
Division of Maternal and Child Health

DHHS Publication No. HRS-D-MC 85-2

This report was prepared with the assistance of the National Center for Education in Maternal and Child Health, 38th & R Streets, N.W., Washington, D.C. 20057. The National Center is a resource center that responds to public and professional inquiries in maternal and child health, including human genetics. Established in 1982, the National Center for Education in Maternal and Child Health provides services under a grant from the Division of Maternal and Child Health, Department of Health and Human Services.



The original drawing on the cover was done by Bob Congé of Rochester, N.Y.

PREFACE

Since the Surgeon General's Workshop on Breastfeeding and Human Lactation last year, there has been a notable renewal of interest and a resurgence of activity in promotion of breastfeeding. This may be attributed to the philosophy of "shared responsibility" which guided the planning committee in organizing the workshop. The workshop participants, representing many professional and voluntary organizations, were actively involved in the workshop process of assessing the current status of breastfeeding promotion in the United States and of developing recommendations and strategies to facilitate progress toward achieving the 1990 breastfeeding objective for the nation. The workshop recommendations have become a national agenda, with participant organizations providing leadership in disseminating the recommendations and encouraging their implementation.

The *Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation*, published in September 1984, has become a valuable reference on the science and art of breastfeeding and a useful planning guide for breastfeeding promotion efforts. The original printing of 35,000 copies was quickly distributed by participant organizations, and a second printing has been done.

This Followup Report has been prepared to document efforts emanating from the workshop and to continue to disseminate information related to breastfeeding promotion activities and accomplishments. At the workshop four successful models to promote breastfeeding were presented. In the past year many additional approaches have come to our attention. The purpose of this *Followup Report: Surgeon General's Workshop on Breastfeeding and Human Lactation* is to recognize other useful approaches, describe these approaches, and identify where they are being implemented. It is hoped that policymakers, administrators, educators, health care providers, professional and voluntary organizations, Federal agencies, employers, and others who read this Followup Report will gain new ideas that will inspire them to further action. Information included in this report was submitted in response to requests made to the participants in the workshop; State Directors of Maternal and Child Health; members of the Healthy Mothers, Healthy Babies Coalition; and Department of Health and Human Services Regional Health Administrators. The responses were impressive and included descriptions of a variety of efforts such as legislation, policies, resolutions, guidelines, meetings, publications, media campaigns, service delivery models, support systems, and research, all of which are included in this report.

We are interested in your response to our ongoing efforts to disseminate information and stimulate action to reduce barriers to breastfeeding. Will you please take a few minutes to complete the questionnaire on the back cover of this publication?

We recognize and appreciate the new, renewed, and continuing work that is being done in support of improved health and nutrition for our nation's mothers and babies. Progress has been made, but many challenges remain in our efforts to promote informed decisions by more women to breastfeed their babies.

A handwritten signature in black ink, appearing to read "C. Everett Koop". The signature is fluid and cursive, with a large initial "C" and "K".

C. Everett Koop, M.D., Sc.D.
Surgeon General

CONTENTS

INTRODUCTION	1
ACTIVITIES RELATED TO RECOMMENDATIONS OF THE SURGEON GENERAL'S WORKSHOP ON BREASTFEEDING AND HUMAN LACTATION	3
PROFESSIONAL EDUCATION	
Task Forces/Work Groups/Committees	3
Policies/Standards/Protocols/Curricula	4
Continuing Education	5
Professional Consultation/Technical Assistance	6
Manuals/Guides/Educational Materials	7
PUBLIC EDUCATION	
Media	8
Hard-To-Reach Groups	10
Promotion/Public Education Campaigns	11
Education Systems	12
Coordination/Sharing of Educational Materials	12
Data Collection	12
HEALTH CARE SYSTEM	
Policies/Standards/Protocols	14
Laws/Regulations	15
Model/Demonstration Programs	16
Staff/Client Education	17
Task Forces/Guides/Materials	18
SUPPORT SERVICES	
Telephone Calling Systems	19
Peer Support Groups	20
Breastfeeding Counselors	20
Nurse Followup/Referral	21
Clinics/Classes	21
Institutional Practices	22
Human Milk Banks	23

WORLD OF WORK	
Data Base	24
Information/Education	24
Institutional Policies	25
Breast Pump Loan Programs	25
Model/Demonstration Programs	25
RESEARCH	
Trend Data	27
Determinants/Behaviors/Practices/Attitudes	28
Physiology/Nutrition/Other Aspects	29
Interventions/Strategies	30
NATIONAL AWARENESS	32
CONTRIBUTORS	34
APPENDIX A – Task Force on Professional Training in Lactation ..	38
APPENDIX B – Research on Human Lactation and Breastfeeding Supported by the National Institutes of Health, Department of Health and Human Services	40
APPENDIX C – Research on Human Lactation and Breastfeeding Supported by the U.S. Department of Agriculture ..	45
QUESTIONNAIRE	C-III

INTRODUCTION

The Surgeon General's Workshop on Breastfeeding and Human Lactation was convened in Rochester, NY on June 11-12, 1984. Presented by the Division of Maternal and Child Health in cooperation with the University of Rochester Medical Center, the workshop was directed toward the achievement of the 1990 national objective of increasing the number of women who breastfeed their infants and the duration of breastfeeding. Specific objectives of the workshop were:

- To review progress of past efforts, in both public and private sectors, to promote breastfeeding
- To assess the state-of-the-art related to factors that enhance and those that inhibit breastfeeding and human lactation
- To determine remaining issues
- To develop strategies and recommendations in order to facilitate progress toward achieving the 1990 breastfeeding objective

Workshop participants included many disciplines serving different ethnic, cultural, and income groups in a wide variety of practice settings. Professional and lay organizations; local, State, and Federal governments; industry; and voluntary groups were all represented. The *Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation* was disseminated in October 1984. Six recommendations with suggested strategies to facilitate progress toward achieving the 1990 objective were presented to the Surgeon General. The recommendations were:

- Improve *professional education* in human lactation and breastfeeding
- Develop *public education* and promotional efforts
- Strengthen the support for breastfeeding in the *health care system*
- Develop a broad range of *support services* in the community
- Initiate a national breastfeeding promotion effort directed to women in the *world of work*
- Expand *research* on human lactation and breastfeeding

The Division of Maternal and Child Health of the Public Health Service, in collaboration with other public and private agencies, encourages, supports, assesses progress, and evaluates followup action related to the workshop recommendations. Efforts to increase the incidence and duration of breastfeeding in the United States were underway prior to the Surgeon General's Workshop. However, as a result of the workshop, many of these efforts have been intensified and expanded. In addition, a significant

number of other activities have been initiated in direct response to the issues identified at the workshop, and strategies designed to promote breastfeeding, particularly in population groups with low incidence of breastfeeding, have been implemented across the nation.

This Followup Report is presented to share information about the wide range of followup action which emanated from the workshop. A large volume of information about followup action was received from a broad spectrum of individuals, agencies, and organizations. In order to ensure a report of reasonable length, it was possible to include only examples or illustrations of the scope of activities undertaken, and to present these in abbreviated or abstract form. The information is organized according to the recommendations listed above. Sections on National Awareness and Contributors are also included, as well as Appendices.

It is hoped that the report will stimulate the interest and increase the support of all who can have an impact on breastfeeding decisions and opportunities. The ultimate goal is a continuing commitment to the promotion of breastfeeding and improvement of maternal and child health.

ACTIVITIES RELATED TO RECOMMENDATIONS OF THE SURGEON GENERAL'S WORKSHOP ON BREASTFEEDING AND HUMAN LACTATION

PROFESSIONAL EDUCATION

Recommendation: Improve professional education in human lactation and breastfeeding

The improvement of didactic and clinical training in lactation and breastfeeding, and the development of skills in patient education and management of breastfeeding for all health care professionals, were major goals of this recommendation. Concerns about the availability and quality of professional education related to breastfeeding and lactation include: 1) the absence of appropriate curricula which recognizes the diversity of sociocultural and economic groups in the population as well as the roles/responsibilities of various health professionals, 2) the inadequate funding for preparation of faculty to direct and provide training, 3) the unavailability of educational programs and resources to support the education of practicing professionals, and 4) the lack of appropriate involvement of accreditation and standard-setting bodies to assure the competence of health professionals and others involved in maternal and child health care.

Followup on this recommendation is receiving priority in most parts of the nation, and significant steps have been taken to improve the education of a wide range of providers who can have an impact on breastfeeding decisions. These steps revolve around the following major types of action: convening task forces, work groups, and committees to focus on professional education; developing and promulgating policies, standards, protocols, and curricula to guide professional action; offering continuing education to a wide range of health care providers; providing professional consultation and technical assistance to upgrade the knowledge and skills of health professionals; and publishing manuals, guides, and educational materials for professional reference.

Selected examples of each of the above types of action follow.

Task Forces/Work Groups/Committees

A national Task Force on Professional Training in Lactation was convened in June 1985 by the University of Rochester Medical Center with support from the Division of Maternal and Child Health, Department of Health and Human Services to review the activities of professional groups pursuant to this recommendation and to determine additional efforts that need to be planned to improve professional education in the areas of lactation and breastfeeding. About 20 major professional organizations and voluntary agencies concerned with perinatal health, education of professionals, and standards of practice were represented. A model policy state-

ment, "Promotion of Breastfeeding in the Context of Health Care: Professional Training Priorities," and a set of objectives were developed (see Appendix A). Task Force members agreed to a followup strategy which called for each organization to endorse the joint policy statement or develop one of its own, and to review the objectives, identifying specific actions to be undertaken by the organization to achieve them. It is expected that the task force meeting will facilitate networking and result in cooperative training programs.

As will be noted in the section on Public Education, many of the state and community coalitions organized to promote breastfeeding include a work group or committee specifically concerned with professional education. For example, one subcommittee of the Virginia Task Force on Breastfeeding is investigating continuing education opportunities related to lactation for health care professionals in that state; the New York City Steering Committee to Promote Breastfeeding has a task group to focus on training of hospital staff; and one of the Montgomery County, MD Breastfeeding Coalition's committees focuses on professional education of physicians.

Policies/Standards/Protocols/Curricula

Not only are Federal, State, and local public agencies, national organizations, and voluntary agencies developing new or additional policy statements, standards, protocols, curricula, and other types of guidance on breastfeeding, but they are also taking positive action to ensure their dissemination and implementation. Illustrations of specific activities are given below:

- The Division of Maternal and Child Health, Department of Health and Human Services issued a Regional Program Guidance Memorandum on Breastfeeding Promotion Efforts to its regional office staff members in Maternal and Child Health, Primary Care, and the National Health Service Corps. The Division of Maternal and Child Health also sent copies of the Healthy Mothers, Healthy Babies Breastfeeding Packet to the State Directors of Maternal and Child Health and to all regional offices of the Department of Health and Human Services for reference use of staff and for broad dissemination to their state and local co-workers.
- Policy and position statements related to breastfeeding developed by many professional organizations remain in effect. These include issuances from the American Academy of Pediatrics, American College of Obstetricians and Gynecologists, the National Association of Pediatric Nurse Associates and Practitioners, and the American Public Health Association. Other groups report that they are in the process of developing new, or additional, policy and position statements related to breastfeeding. These include the National Perinatal Association and The American Dietetic Association.
- The Tennessee Department of Health and Environment developed 1) a protocol on providing support to breastfeeding mothers for use in local health departments, 2) lesson plans on breastfeeding management in hospitals for use in training of hospital staff, and 3) guidelines for enlisting the support of local health care providers and health professional training programs.

- The Steering Committee to Promote Breastfeeding in New York City developed a curriculum which specifies breastfeeding knowledge and skills necessary for hospital staff. It will be used to train monitors and health care workers involved in implementation of New York State's new regulations supporting breastfeeding in hospitals. Their *Guide to Promoting Breastfeeding in the Hospital* will be distributed widely by the State Health Department.
- Health Education Associates (PA) issued two new education aids designed to help implement recommendations of the Surgeon General's Workshop. The "Breastfeeding Teaching Box for In-Hospital Teaching" is a box of teaching cards for instructor use in any setting in which mothers initiate breastfeeding. The "Kit for Preventing Breastfeeding Problems and Early Failure" provides complete instructions and materials for use in developing a telephone call system to assist nursing mothers. Based on the realization that many give up breastfeeding very easily, the kit uses a "triage" model to differentiate among women with different levels of interest and motivation in breastfeeding and to focus on providing practical help to each woman as indicated.
- Family Medicine Center, Durham Health Care, Inc. (NC) has incorporated didactic material on lactation and breastfeeding in the nutrition curriculum developed for its residency program. Future plans include development of a counseling component of the nutrition curriculum to increase competency of family physicians in counseling breastfeeding mothers.
- The first credentialing exam for lactation consultants was given in July 1985 in Washington, DC by the International Board of Lactation Consultant Examiners.

Continuing Education

Positive steps are being taken in many states, local communities, and agencies across the nation to provide in-service education in lactation and breastfeeding to a wide range of care providers. In some states, educational resources such as the National Child Nutrition Project (PA) and Health Education Associates (PA) are utilized for workshops and conferences. These states include: California, Idaho, Illinois, Maryland, Mississippi, Montana, New Hampshire, North Dakota, South Dakota, Vermont, and Washington as well as several states in Department of Health and Human Services Region VI. Often personnel in neighboring states participate; for example, Maine sent staff to the New Hampshire workshop.

In other states, the state health agency works closely with educational institutions and various agencies to provide continuing education in lactation and breastfeeding. Frequently these continuing education courses involve one or more sessions incorporated into a broader topic on maternal and child health; often the conference focuses solely on lactation. States involved in these activities include: Alaska, Colorado, Connecticut, Georgia, Iowa, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New Jersey, New York, Ohio, Pennsylvania, South Dakota, Utah, Washington, and Wyoming.

Both public and private community agencies in various localities also conduct in-service training for their own staff as well as that of other agen-

cies. For example, the nutrition staff of the William F. Ryan Community Health Center (NY) participated in ongoing professional conferences on breastfeeding education. In Indiana, the Rural Health Activities Project and Margaret Mary Community Hospital sponsored a workshop. La Leche League reports the continuation of long-standing professional seminars for physicians, and the implementation of additional educational opportunities for health professionals and breastfeeding counselors.

Medical centers also play a key role in sponsoring professional education opportunities, often in cooperation with other groups. These include the University of Rochester Medical Center (NY), Case Western Reserve University and Rainbow Babies and Children Hospital (OH), and Georgetown University Hospital's Department of Nursing (DC). Voluntary agencies and professional organizations contribute to upgrading the knowledge and skills of professionals. The March of Dimes Birth Defects Foundation and The American Dietetic Association include lactation and breastfeeding as important topics in their nationwide series of symposia for dietitians, nurses, and physicians, designed to address nutrition in perinatal health care including the short- and the long-term support of critical and convalescing premature infants. Papers and sessions on breastfeeding are included in the annual meeting programs of such professional organizations as the American Medical Women's Association, American College of Obstetricians and Gynecologists, and the National Association of Pediatric Nurse Associates and Practitioners. The twelfth and thirteenth annual Seminars for Physicians on Breastfeeding sponsored by La Leche League International were held in Montreal, Canada in 1984 and in Washington, DC in 1985.

Professional Consultation/Technical Assistance

In order to help health care providers develop skills in patient education and management of breastfeeding, many agencies continue or are expanding their professional consultation and technical assistance services to staff in a wide variety of practice settings.

For example, the three-year demonstration project sponsored jointly by the Departments of Pediatrics, Obstetrics, and Community Health of the Albert Einstein College of Medicine (NY), and supported as a Title V Special Project of Regional and National Significance, is designed to improve the incidence and duration of breastfeeding among low-income women in the Bronx. A lactation consultation team consisting of a nutritionist, nurse, and obstetrician provides consultation and education services in the three municipal hospitals in the Bronx and the eleven community health centers that constitute the Bronx Committee for the Community's Health. While members of the team provide consultation to mothers with breastfeeding problems, primary emphasis is given to education and training activities directed toward providers of care.

The San Diego Lactation Program continues to provide intensive training and consultation to professional care providers. For example, the Population Council of New York utilized staff from the San Diego program for a day-long workshop for key staff members of the municipal hospital system. This workshop consisted of on-site visits to selected hospitals to meet with staff and conduct bedside demonstrations of techniques to assist

mothers with breastfeeding. A followup visit one year later was made to the target hospital to address specific concerns of staff.

Manuals/Guides/Educational Materials

A significant number of educational materials designed for professional reference and use were available prior to the Surgeon General's Workshop. Since the Workshop a renewed effort has been made to improve their dissemination and to develop additional materials to meet special needs and fill existing gaps. Examples of activities related to this effort include:

- The Healthy Mothers, Healthy Babies Coalition's Breastfeeding Promotion Packet was assembled with leadership from the American Academy of Pediatrics and contributions from selected Federal and State agencies and professional organizations. Almost 2,000 copies of this educational packet on breastfeeding have been disseminated nationwide. The packet includes reprints of scientific articles on lactation and breastfeeding; bibliographies of selected technical references and resource materials; sample materials for client education; a how-to guide to assist individuals, agencies, and communities to promote breastfeeding; and a list of key organizational contacts by state. In some states, materials in the packet have been made more widely available to health professionals working within the state.
- The National Child Nutrition Project (PA) published *A Guide to Breastfeeding—Principles, Practices and Problems*. It is intended as a guide for medical professionals and others who work with expectant and new mothers.
- The Population Council's Program for Appropriate Technology in Health has developed "Breastfeeding: A Nurse's Guide" for use in conjunction with two client booklets, "A Mothers Guide to Breastfeeding" and "Su Guia de la Lactancia Materna." Intended for use by hospital staff and mothers, the booklets are designed to help them initiate and maintain breastfeeding. Drawings and simply stated messages are used to illustrate and explain breastfeeding.
- The United States Department of Agriculture, Food and Nutrition Service, with support from the Infant Formula Council, published and disseminated *Promoting Breastfeeding: A Guide for Health Professionals Working in the WIC and CSF Programs*. The guide is intended to provide a variety of ideas and successful approaches to help staff be more effective in their efforts to promote breastfeeding among low-income women.
- The National Center for Education in Maternal and Child Health continues to make available the video-tape on breastfeeding from the nationwide teleconference entitled "Improving Nutrition for Mothers and Babies: A Research Update—Breastfeeding and Human Lactation."

PUBLIC EDUCATION

Recommendation: Develop public education and promotional efforts

There is a need to improve the availability and quality of information and education about lactation and breastfeeding as a normal process, a part of everyday life, and the preferred method of infant feeding. Important aspects of this recommendation include the development and dissemination of accurate and consistent messages about breastfeeding, increased use of the educational system and the media; coordination with professional education; recognition and targeting of various economic, cultural, and ethnic groups; and encouragement of public officials and other leaders who can influence community support for breastfeeding.

A wide range of efforts have been stimulated by the workshop and implemented to improve public information and education about breastfeeding and lactation. Included are activities designed to make more effective use of various media, improve targeting of hard-to-reach groups, develop state and community promotion and public education campaigns, integrate breastfeeding information into education systems, coordinate and share educational materials, and collect data to monitor changes in attitudes and behavior. Illustrations of these various activities follow.

Media

Increased use has been made of television, radio, newspapers, magazines, posters, films, display ads, educational materials, and other media to enhance awareness of breastfeeding as the norm and to encourage the development of attitudes and behaviors that support it.

For example, the Public Education Task Group, New York City Steering Committee to Promote Breastfeeding, completed a three-pronged strategy as the basis of a public information campaign. Included were a media effort composed of a subway poster, press conference, "caravan" of mothers breastfeeding on the subway with television, radio, and press coverage; a telephone information effort which provided counseling and referral; and an informational pamphlet for use in health clinics and other service settings. A speakers' bureau was organized, and resource materials were developed for use in public presentations during a city-wide Prenatal Care Week program. An estimated four million New Yorkers had some exposure to the two-month public information campaign in the fall of 1984.

The Wisconsin Nutrition Project, Inc., developed two radio and two television public service announcements to promote breastfeeding. The Tennessee Breastfeeding Task Force developed a public service announcement to educate the public and encourage pregnant women to contact the health

department for breastfeeding information, while the North Jersey Community Union in Newark also conducted a media campaign about breastfeeding.

Actress Linda Kelsey has formed a non-profit organization, *Metanoia* (a Greek work meaning "change of heart"), to foster a change on the part of millions of mothers around the world to choose breastfeeding. *Metanoia* has produced a 30-second public service announcement in English and Spanish to promote breastfeeding and will have a toll-free 800 telephone number which viewers will be able to call for information. The public service announcement will be available for use by states in their Healthy Mothers, Healthy Babies public information efforts.

Posters and leaflets for use in a wide variety of settings were developed by the New York State Health Department in cooperation with the New York City Health Department and the New York City Medical and Health Research Association.

The Healthy Mothers, Healthy Babies Coalition has continued to emphasize breastfeeding in its public education effort. Breastfeeding is the topic of one of a series of six posters and information cards developed for use in clinics serving low-income pregnant women. Over a million breastfeeding information cards in English and Spanish have been distributed to low-income women.

A student in the Department of Health Education at Hunter College, New York City, is conducting a survey of women to evaluate the effectiveness of different types of posters in getting the breastfeeding message to women.

Videotapes to present information to clients were prepared by the Jackson County, IL public health program and by Charity Hospital in New Orleans, LA. The latter tape was filmed in a client's home, and a client narrated the film. Closed-circuit television is made available to patients at the Kapiolani Women and Children's Medical Center in Hawaii, and breastfeeding films are shown daily.

Films were also prepared and disseminated to increase public education about breastfeeding. In Kansas, the State Department of Health and Environment and the Kansas University Medical Center produced "Breastfeeding in the 1980's." The producers of a three-part educational film series on breastfeeding, Motion, Inc., offered a special discount on film orders received before March 31, 1985, in recognition of the Surgeon General's commitment to promote breastfeeding. The New Jersey State Department of Health, with support from the Ford Foundation, developed a film entitled "Lily's Choice" for use with low-income populations.

"Outside My Mom: The Story of a Breastfed Baby" is an 11-minute audiovisual presentation available from the March of Dimes Birth Defects Foundation. It is available in color slides or filmstrip with audio-cassette and comes with a teaching guide and pamphlets for viewers.

Other innovative activities related to the use of media include the development of a guide, *Starting a Telephone Support System for Breastfeeding Mothers*, by the Wisconsin Nutrition Project, Inc., and the Alabama State Health Department's use of specially designed postcards. Mailed to mothers of breastfed infants when infants are ten days, three weeks, and six weeks of age, the cards provided information designed to encourage continuation of breastfeeding.

New or additional educational materials on breastfeeding were developed by numerous organizations and agencies, and many took steps to expand the dissemination and use of existing materials. For example, the Missouri Division of Health developed an information packet on breastfeeding for diabetics, while the Naturist Society and the State Health Departments in Alaska, Colorado, Illinois, Indiana, Minnesota, New York, Wisconsin, and Wyoming developed or provided for new materials on breastfeeding. The Utah State Health Department initiated a periodic newsletter for all new mothers in the state, and it will include information on breastfeeding. The American Academy of Pediatrics, the Department of Health and Human Services/Division of Maternal and Child Health, the United States Department of Agriculture/Food and Nutrition Service, the Baylor College of Medicine/Department of Pediatrics, and The American Dietetic Association cooperated in the development and dissemination of two publications on breastfeeding—*A Gift of Love* and *Breastfeeding: Baby's Best Start*. The latter is written in both English and Spanish.

Hard-To-Reach Groups

Some of the educational materials on breastfeeding described above were published in several languages to meet client needs and in simplified formats for clients with limited reading skills. For example, the Population Council of New York developed a new set of educational material for women with limited reading ability.

Helping Mothers to Breastfeed, Program Strategies for Minority Communities, a guide edited by Judith D. Gussler and Carol A. Bryant, was published by the Lexington-Fayette County Health Department (KY) and the University of Kentucky College of Medicine. Based on a breastfeeding promotion workshop supported by Ross Laboratories, the publication includes reports from people directing successful breastfeeding programs for low-income mothers in several rural communities and ethnic groups in widely scattered geographic areas.

Florida has developed a poster to promote breastfeeding among its new refugee populations. Many immigrants from developing countries view bottle-feeding as the accepted method of infant feeding in the United States. The poster in English, Spanish, and Haitian Creole versions says "Discover the New American Way of Infant Feeding."

In New York City, the Expanded Food and Nutrition Education Program aides accelerated their activities to promote breastfeeding among low-income women. Emphasis is given to recruitment of pregnant women, particularly pregnant teens, use of volunteers to provide a support network, and use of leaflets and brochures adapted to client needs.

To provide prenatal education for young parents in rural areas, the University of Wyoming developed twelve slide-tape modules, one of which is on breastfeeding.

Recognizing that grandmothers and other close kin can be important support persons for new parents, the International Childbirth Education Association, Inc., has developed a leaflet entitled "To the Grandmother of the Breastfed Baby." Grandmother classes offered during the prenatal and postnatal periods to help close kin learn current concepts of maternal and infant care and nutrition are also recommended. Such classes can update

grandmothers on new concepts and practices that have changed during the last generation and can help them develop supportive attitudes and techniques.

Many of the breastfeeding promotional campaigns described later in this section focus considerable attention on hard-to-reach groups. The District of Columbia's campaign, for example, is targeted for low-income minorities who reside in the District as well as for local professional and paraprofessional providers who deliver health and social services to these groups.

Promotion/Public Education Campaigns

One of the most interesting followup activities was the initiation and expansion of coalition-type organizations in states and communities across the nation to mobilize community interest and support for breastfeeding. Following are a few illustrations of these organizing efforts.

The Virginia Task Force on Breastfeeding currently includes representatives from health departments and hospitals and will be expanded to include individuals from primary care centers and other interested groups. Three subcommittees are involved in obtaining baseline data about breastfeeding promotion and education, investigating opportunities for continuing education available for health care professionals, and reviewing the availability of support services and systems. The Georgia Breastfeeding Promotion Steering Committee includes representatives from medical organizations, national foundations, and educational institutions. Plans are underway to convene breastfeeding workshops for professionals and sponsor other promotional activities. The District of Columbia's Breastfeeding Promotion Campaign was launched in September 1985.

Individuals and organizations from the private and public sectors are cooperating to address barriers that interfere with the initiation and continuation of breastfeeding. Tennessee's Breastfeeding Promotion Task Force was organized to develop a statewide breastfeeding education and promotion campaign. It is composed of representatives from the nursing, nutrition, and maternal and child health divisions of the State Department of Public Health. A technical advisory committee has been organized and includes two private-practice obstetricians, the chairman of the Perinatal Advisory Committee of the state chapter of the American Academy of Pediatrics, two university nursing professors, and a hospital nurse and lactation counselor. A policy letter stressing the importance of providing services that support breastfeeding has been issued to all local health departments in the state.

A workshop, entitled "Promoting Breastfeeding in Massachusetts: Research Issues, Policy Implications and Practical Strategies," was held to set the groundwork for a statewide campaign. Organized by the Massachusetts Breastfeeding Promotion Task Force, the workshop was cosponsored by the Massachusetts Department of Public Health, Boston University School of Public Health, Boston Area Health Education Center, Department of Health and Hospitals, and the Erna Yaffe Foundation. Numerous state, professional, and voluntary organizations were involved. Conference proceedings will be available in December 1985.

Cities and counties in various geographic areas were also active in promoting breastfeeding. For example, the La Crosse, WI Breastfeeding Task

Force, organized in 1982, has continued its efforts to work with local hospitals, clinics, social services, and Women, Infants, and Children programs to increase the incidence and duration of breastfeeding. The Las Vegas, NV Perinatal Coalition is working to involve the La Leche League in staff training and to modify hospital policies which have discouraged breastfeeding. The Montgomery County, MD Breastfeeding Coalition has developed "Guidelines for Enlisting Support of Local Health Care Providers and Health Professional Training Programs." Four committees have been established: Patient Education, Professional Education for Physicians, Community Outreach, and Literature. The Steering Committee to Promote Breastfeeding in New York City continues to implement specific strategies to promote breastfeeding. The work of six task groups is well underway, and reports of some of their activities are discussed in other sections of this report.

In addition to all of these state and local coalition activities, Healthy Mothers, Healthy Babies state coalitions in Arizona, California, Maryland, and Montana reported a focus on the promotion of breastfeeding.

Education Systems

Limited efforts to integrate breastfeeding information into existing secondary school curricula and educational programs and systems are being reported. The New York State Health Department reported loaning films on breastfeeding free of charge to schools for family life education courses. In Arizona, La Leche League members are invited to speak in some schools. Primary care projects such as North Jefferson Health Systems, Inc., Clayton, NY provide films, informational materials, and staff to lecture on breastfeeding in schools.

In addition, prenatal and parenting classes conducted by a wide variety of health agencies include information on breastfeeding. Such agencies include Clinica Sierra Vista (Lamont, CA), Northern Oswego County Health Services, Inc. (Pulaski, NY), San Juan Department of Health and the Concilio De Salud Integral De Loiza, Inc. (PR), and the Anchorage Health Department (AK).

Coordination/Sharing of Educational Materials

Educational materials on breastfeeding developed by such organizations as La Leche League, International Childbirth Education Association, the American Academy of Pediatrics, and The American Dietetic Association are utilized nationwide. In addition, information and materials available from industries such as Ross Laboratories, Mead Johnson, Wyeth Laboratories, and Gerber are also used and adapted as necessary. Many local health departments report that they utilize materials from their respective state health agencies.

Data Collection

It appears that more effort is being made to collect baseline data useful in monitoring changes in attitudes and behavior related to breastfeeding. States utilizing the automated data system of the Women, Infants, and Children program to monitor the incidence of breastfeeding are Alabama, Arizona, Colorado, Connecticut, Iowa, Kentucky, Maine, Montana,

Nebraska, New Jersey, North Carolina, Rhode Island, Tennessee, and Wisconsin. Over 300 maternal and child health agencies and primary care programs in the Department of Health and Human Services Region VI have surveyed knowledge, attitudes, and practices among their clients. Maine, California, and Oregon report use of their state-wide newborn screening program data base to determine incidence of breastfeeding. In Maine, for example, a recently initiated Newborn Breastfeeding Surveillance Program provides information on breastfeeding rates in Maine hospitals and about feeding practices of at least 90 percent of the newborns in the state.

The Ross Laboratories National Mothers Survey is conducted on an annual basis to track infant feeding practices in the United States. The data from the 1984 survey are scheduled to be published in the December 1985 issue of *Pediatrics*.

Surveys to assess practices and policies were also conducted by Alaska's State Department of Health and Social Services; Arizona's State Department of Health; St. Louis, Missouri's County and City Women, Infants, and Children Advisory Council; and Tennessee's State Department of Public Health. The surveys obtained information from mothers, birth certificates, hospitals, health programs, and other data sources.

HEALTH CARE SYSTEM

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

Practices of the health care team and policies of health care institutions do not always reflect concern for lactation and the promotion of breastfeeding. In fact, frequently they negate support for it. This recommendation deals with the need for breastfeeding promotion in ambulatory health care settings as well as hospitals. The need for education for all members of the health care team about the process and the advantages of lactation in human reproduction and infant health was emphasized. Adoption of institutional policies supportive of lactation and breastfeeding and removal of disincentives to breastfeeding were recommended. Many supportive actions are also reported under Professional Education and Support Services.

Five different strategies appeared frequently to be used to strengthen the health care system's support of breastfeeding. These include: development and promulgation of institutional policies, standards, and protocols; modification or enactment of laws and regulations; implementation of model or demonstration programs; education of staff and clients; and development of task forces, guides, and materials. Examples of each of these strategies follow.

Policies/Standards/Protocols

Federal, state, and local agencies report the development, adoption, and dissemination of policies, standards, and protocols designed to increase support for breastfeeding in the health care system. Some examples are given below:

- The United States Department of Agriculture revised "Efforts To Promote Breastfeeding in the Supplemental Food Programs," a fact sheet which describes federal requirements, publications, and guidance available from the United States Department of Agriculture, cooperative efforts, and other useful information.
- The Division of Maternal and Child Health/Department of Health and Human Services included breastfeeding promotion as a priority area for competitive grant applications for Fiscal Year 1985 funding under the Maternal and Child Health Improvement Projects category of Special Projects of Regional and National Significance.
- In New Mexico, nutrition recommendations for lactating women and infant feeding were included in a state nutrition manual. *Breastfeeding: A Problem Solving Manual* was also developed by the nutrition staff of the state health agency for use by nurses, nutritionists, and other health professionals.

- The Women, Infants, and Children and the Commodity Supplemental Foods Program State Plans and Policies continue to emphasize breastfeeding as a priority among program goals. Connecticut, Minnesota, and Wisconsin Women, Infants, and Children programs require each local agency to include measures to promote breastfeeding in its annual plan.
- A policy and procedure manual on breastfeeding for babies requiring newborn intensive care and other special care was developed at the University of Kansas Medical Center. Policy changes have been instituted to support breastfeeding of preterm and sick infants.
- *Six Steps to Breast Feeding Promotion: A Handbook for Health Care Professionals in Maternal and Infant Care Facilities* was developed by the Prenatal and Postpartum Ambulatory Care Task Group of the Steering Committee to Promote Breastfeeding in New York City.
- The *Suggested Guidelines and Standards for Maternal and Perinatal Nutrition Care*, which includes breastfeeding, continues to be promulgated by the Michigan Health Department in cooperation with the Michigan State Medical Society and the Michigan Dietetic Association.
- "A Model Breastfeeding Policy for Full-Term Normal Newborn Infants" was developed by the San Diego Lactation Program (CA), and a similar policy is in preparation by the Greater Southeast Community Hospital (DC).
- A "Breastfeeding Promotion Policy," issued by the Tennessee Department of Health and Environment, is posted in every health department clinic statewide. A *Breastfeeding Promotion Handbook* to assist local health departments with planning and implementing such efforts is being completed.
- The Arkansas Public Health Association adopted the American Public Health Association resolution on Breastfeeding Encouragement.
- The Georgia Division of Public Health, Office of Nutrition developed a position paper on breastfeeding. Guidelines are also being prepared and will be distributed statewide as part of a practice manual.
- Quality assurance standards for lactation were developed by the Maternal and Child Health Division, Indiana Department of Health, and made available for use in all local health services.

Laws/Regulations

This particular strategy has not been used extensively, but several states have undertaken activities related to either changing existing laws and regulations, or developing new ones in order to influence the health care system to facilitate breastfeeding. Some of these activities are given below:

- In New York State, breastfeeding regulations were issued as an amendment to the New York Hospital Code (see Support Services).
- In Massachusetts, there is a proposed amendment to the patients' bill of rights to inform prenatal and maternity patients about the health benefits and techniques of breastfeeding and lactation. The bill (S2269) is in the Senate Steering and Policy Committee.
- In the Pacific Basin, a model bill supporting the promotion of breastfeeding and adaptable to each jurisdiction is being prepared for inclusion in a breastfeeding packet. This effort is part of the focus on breastfeeding, a priority of the Pacific Basin Maternal and Child Health Resource Center

at the University of Guam. This center is supported by Division of Maternal and Child Health funds.

Model/Demonstration Programs

Many agencies implemented a variety of model or demonstration programs which provide continuous support, professional consultation, client counseling, and education. Descriptions of a number of these programs are mentioned below:

- “The Lactation Project” at Oregon Health Sciences University Hospital serves women who deliver their babies there as well as those referred by private physicians. The project includes a lactation clinic, inservice training of staff, consultation to staff and private physicians, telephone followup of clinic clients, and prenatal education which includes breastfeeding.
- “The Model Breastfeeding Program” of Tacoma-Pierce County Health Department is supported by the Washington State Office of Maternal and Child Health. Details of this project are discussed under Support Services.
- The project “Overcoming Constraints to Breastfeeding in Lower Socio-economic Urban Groups” has been continued by the Population Council (NY). Focusing on factors over which hospital staff could exert some control, a Nursing Department Lactation Committee was developed in the hospital. Functions of the Committee relate to staff and patient education, reporting techniques, and development of more consistent, quality nursing care throughout the period of pregnancy, lactation, and infancy. An interdisciplinary group meets on an ad hoc basis to examine impediments to breastfeeding as they relate to medical and nursing issues. Plans include employment of a part-time lactation counselor, a telephone hotline for nursing mothers, and training of a multidiscipline staff.
- The three-year “SPRANS Breastfeeding Project” at Albert Einstein College of Medicine (NY) is described under Professional Education. In addition to activities cited elsewhere, a curriculum outline, “Art and Science of Breastfeeding,” and a form for prenatal pediatric interviews have been developed.
- A joint breastfeeding promotion project of the Washington State Office of Maternal and Child Health Services and the Seattle-King County Department of Public Health is developing a system to promote breastfeeding that can be replicated statewide. Supported as a Title V Maternal and Child Health Improvement Project, the goals of the project are: to establish a model for increasing the incidence and duration of breastfeeding among low-income and minority women that incorporates support for breastfeeding into the existing health care delivery system; to provide breastfeeding education to public health professionals throughout Washington; and to develop breastfeeding education materials for statewide use. A model of service will be developed, implemented, and evaluated at two sites that currently have very low rates of breastfeeding. A manual to assist others in the development of similar projects will also be written.
- A breastfeeding promotion project conducted by Renewable Technologies, Inc., in Butte, MT aims to develop breastfeeding counsel-

ing and support in the existing private maternal and infant care system where virtually all such care is provided in Montana. Health care professionals (nurse, nurse-midwife, dietitian) will function as breastfeeding subspecialists who will become self-supporting independent practitioners in the existing private system. The cost of providing breastfeeding support services by a breastfeeding subspecialist and the potential for any reimbursement for payment of these services will be determined.

- The pilot project “Maternal and Child Health Module” has been initiated at Shady Grove Adventist Hospital (MD). The focus includes change in hospital policies, staff education, and a strengthening of referral and followup.
- The “Breastfeeding Promotion Program” at Yeatman, Union-Sarah Medical Health Centers, St. Louis, MO, involves promotion, education, counseling, and support activities. An ad hoc task force was organized to explore the feasibility of such a program and assist in its implementation. A prenatal counseling protocol was established. A series of letters to the client’s family, including grandparents and fathers, was developed and many other actions implemented.
- A project related to promotion of breastfeeding in the hospital setting was conducted by the Division of Child and Family Health, Department of Health and Welfare, Canada. Another project involved the development of a counseling guide, *Feeding Babies in the Eighties*, for health professionals.

Staff/Client Education

A diverse group of health care agencies took positive steps to improve the knowledge and skills of staff and clients involved in the health care system. Activities directly related to this recommendation are also discussed under Professional Education, Public Education, and Support Services, and some are mentioned in the paragraphs that follow:

- The first step in a multifaceted program for Alabama’s health department personnel is in-service training on aspects of breastfeeding promotion. Five of the ten health districts are focusing on increasing the incidence of breastfeeding.
- Significant numbers of community health centers have stepped up their efforts to provide individual counseling and patient education, and to use prenatal and childbirth preparation classes effectively for education regarding breastfeeding. Among such health centers were the Oak Orchard Health Center and Coney Island Community Health Center (NY), East Orange Family Health Center (NJ), Clinica Adelante, Inc. (AZ), and Neponset Health Center (MA).
- Nurses in the area of Cleveland Metropolitan General and Highland View Hospitals (OH) received training on the promotion of breastfeeding of high risk infants from the neonatal nutritionist.
- The Hudson Headwaters Health Network, Warrensburg, NY, provides a free pediatric visit for couples before their baby is born. During this visit the pediatrician stresses the importance of breastfeeding. Information about breastfeeding is also presented during the Lamaze classes sponsored by the Network.

Task Forces/Guides/Materials

A variety of organizations and agencies, both individually and in groups, have formed committees and have developed guides and other materials to improve the support for breastfeeding throughout the health care system. A brief summary of these guides and other materials is given below:

- A breastfeeding task force is being established by the Cincinnati Department of Health and University Hospital (OH). This collaborative effort is expected to result in an increase in the incidence and duration of breastfeeding in health service facilities.
- The chart, "Hospital Practices Which Influence Breastfeeding Initiation," included in the *Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation*, has been widely used by hospitals as a guide to assess hospital practices and identify areas in need of improvement.
- A handbook, *Six Steps to Breastfeeding Promotion*, has been prepared for health care professionals in maternal and infant care facilities by the New York City Steering Committee to Promote Breastfeeding. The committee's Facility Task Group is planning a workshop to develop strategies for decreasing institutional barriers to breastfeeding.
- Numerous hospitals have prepared or adopted breastfeeding guidelines, policies, and education materials to improve in-hospital and out-patient services related to breastfeeding. These include Brigham and Women's Hospital, Boston, MA, New Orleans Charity Hospital (LA), and many others.
- St. Luke's-Roosevelt Hospital Center Breastfeeding Committee (NY), composed of representatives from the departments of Pediatrics, Obstetrics, Nursing, Food Service and Nutrition, Pharmacy, and Social Services continues its work. After three years of coordinated effort, its *Breastfeeding Manual* is ready to be published. Geared toward educating all hospital staff, it is a direct "hands on" reference and teaching tool in Spanish and English. It will be formally introduced to the staff at a breastfeeding conference.

SUPPORT SERVICES

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

This recommendation focuses on the need for women to have access to the followup support necessary to cope with questions and problems related to lactation and breastfeeding, both during hospitalization and following discharge from the hospital. Such support 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.

Seven general approaches seem to be used to develop and ensure the availability of a range of community support services. These include maintenance of telephone calling systems, development of peer support groups, use of peer breastfeeding counselors and professional lactation specialists, provision of nurse followup and referral, sponsorship of breastfeeding clinics and classes, removal of institutional barriers and improvement of institutional practices, and the operation of human milk banks.

Many of the activities reported under Professional Education, Public Education, and World of Work address the need for followup support. Additional examples of activities targeted on the development of community support services follow.

Telephone Calling Systems

One method of providing local support for breastfeeding mothers is telephone followup by staff or volunteers. A few examples are given below:

- The Nutrition Project, Inc. (WI) developed a new publication, *Starting a Telephone Support System for Breastfeeding Mothers*. This guide provides step-by-step advice about how to establish a "buddy" support system directed to low-income breastfeeding mothers.
- Several community health centers also provide for telephone contact. For example the Charles Drew Health Center, Inc. in Omaha, NE provides for a telephone call to the mother one to three days after hospital discharge and a home visit within the first week. For ongoing peer support, referrals are made to the local La Leche League. In Lamont, CA, Clinica Sierra Vista provides for a telephone followup call to breastfeeding mothers the first two days after discharge from the hospital. Call are made by a nutrition aide.

- The Milwaukee, WI Task Force on Breastfeeding maintains a telephone “buddy” support system using 40 trained volunteers to answer questions and assist with problems.

Peer Support Groups

One of the most widely available sources of support for breastfeeding mothers in local communities is peer support groups. Some examples of peer support groups and their activities are given below:

- La Leche League continues to be a major resource for peer support in a large number of communities in every state. Health care providers in both the private and public sectors report working closely with League groups to make referral arrangements that facilitate necessary support during lactation. The Zanesville Muskingum Prenatal Clinic in Zanesville, OH and the Valley Health Center in Yuma, AZ are examples of such joint efforts.
- Public health agencies and community health programs are increasing their efforts to establish support groups. In Georgia, for example, district health departments are promoting the development of such groups. A volunteer support system has been established in Eau Claire, WI, and it works closely with local hospitals, clinics, social service agencies, and Women, Infants, and Children programs. The Appalachian Ohio Rural Health Initiative Program sponsors group sessions on breastfeeding for women in the third trimester of pregnancy. The Catawba Public Health District (SC) continues its monthly Nursing Mothers Support Group meetings, provides information through telephone contacts by volunteers, and recommends books and other material on breastfeeding to be carried by bookstores and specialty shops. A breastfeeding mothers support group in Sussex County, DE focuses on prenatal patients and hospital obstetric patients. In Hamilton County, OH the Women, Infants, and Children program makes a small library of breastfeeding references available for client use. The Deposit Health Center in Deposit, NY utilizes the United Health Services outreach worker for home followup to assist and provide support for breastfeeding mothers.
- In the southeast Queens area of New York City, Cornell University Cooperative Extension’s Expanded Food and Nutrition Education Program, in conjunction with the National Black Women’s Health Project, is establishing breastfeeding support groups. Many of these groups are composed of volunteers recruited from the Education Program’s homemakers. They include both English and Spanish language groups. It is expected that hospital maternity staff and Women, Infants, and Children program staff will refer clients to the support groups.
- Metro Nursing Mothers was initiated in St. Paul, MN to provide professional support and problem solving to both professional persons and breastfeeding families. This non-profit organization holds weekly clinics in a church.

Breastfeeding Counselors

The availability of professional and peer breastfeeding counselors is increasing as a source of support for mothers. Mentioned below are some of these counseling services:

- The Adams County, OH Women, Infants, and Children program uses private funding to support a part-time lay breastfeeding counselor to provide education and followup services. She is available for home and hospital visits which are followed up by phone and mail contacts. A similar program in a large Arizona hospital employs La Leche League leaders as paid breastfeeding counselors six days a week to provide education and counseling.
- The North Central Bronx Hospital has a "Doula" project funded by the New York State Department of Health. The "Doula" works with new breastfeeding mothers individually, participates in postpartum rounds and classes, provides telephone followup, and helps families obtain other needed services.
- Two county health departments in Maryland are involved in a pilot program for peer counselors. Protocols for the program were developed by a graduate student from Johns Hopkins University School of Public Health.
- The Riverside County, CA Women, Infants, and Children program staff developed a Lactation Counselor Manual. Materials from the National Child Nutrition Project (PA) also include a *Counselor's Guide to Breastfeeding*.
- Through a grant to the Rhode Island Women's Health Collective, the Rhode Island State Department of Health has supported a part-time person to train peer counselors who promote breastfeeding in the Hispanic population.

Not all efforts to develop peer counseling programs have been successful. For example, the Waianae Coast Comprehensive Health Center in Hawaii explored the possibility of using Women, Infants, and Children program participants who were currently nursing or had previously breastfed their babies for six months or more as counselors. While 18 women agreed to become involved, attendance at followup training meetings was poor, and the project was dropped.

Nurse Followup/Referral

One example of nurse followup is the program of the Family Care Center of Carondelet in St. Louis, MO. It provides for prenatal and postpartum home visits for each client by the Maternal Health Nurse to discuss breastfeeding and other aspects of care. Referrals are made to La Leche League for continuing support. As noted earlier, the Charles Drew Health Center in Omaha, NE also provides for home visits and referrals to La Leche League. In Florida, the North Central Maternal and Infant Care-Women, Infants, and Children project continues to offer home visits to newly breastfeeding women within the first weeks after hospital discharge. Settlement Health and Medical Services, Inc. in New York City provides a hospital visit by a nurse-midwife and a home visit, within 48 hours after hospital discharge, by a pediatric nurse practitioner to ensure that breastfeeding is proceeding well.

Clinics/Classes

The Tacoma-Pierce County Health Department (WA) operates a Model Breastfeeding Program supported by the State's Office of Maternal and Child Health. Breastfeeding clinics are held twice weekly, and classes

are scheduled monthly to promote breastfeeding, particularly among low-income women. A pediatric nurse practitioner is responsible for the program. In addition to the clinics and classes that provide an opportunity to address common concerns of breastfeeding mothers and assist them in locating community resources, she is available for telephone consultation and in-service education for health professionals. She also assists other local health departments through on-site consultation in developing similar programs.

In Wyoming, ongoing breastfeeding classes sponsored by county public health agencies are in progress in 22 of the 23 counties. Special classes are also conducted for new breastfeeding mothers through clinics serving clients of the Women, Infants, and Children program.

La Leche League has developed a new format of breastfeeding classes to be available for mothers who prefer this to the traditional ongoing meetings.

Institutional Practices

Two examples of efforts to remove hospital barriers to breastfeeding are the National Child Nutrition Project (PA) program and the breastfeeding legislation enacted in New York State. Detailed descriptions of these efforts are given below:

- Through a grant from the Ford Foundation, the National Child Nutrition Project has focused on removing hospital barriers to breastfeeding and strengthening the prenatal and postpartum breastfeeding support network in hospitals where low-income women deliver their babies. The Project's policies and procedures, materials, and research findings have been compiled into the *Breastfeeding Promotion Guidebook* which is available in English and Spanish. The guidebook served as the framework for three conferences in Chicago, Dallas/Fort Worth, and Baltimore. Teams of three to five persons representing hospital and ambulatory health services were invited to the conferences. One objective was to stimulate these teams to work together in developing a coordinated breastfeeding promotion effort for women during pregnancy and throughout the lactation period.
- The State of New York has recently passed breastfeeding regulations to amend the New York Hospital Code. Under the new regulations, hospitals will be required to provide instruction and assistance to each maternity patient who either chooses to breastfeed or is undecided about the feeding method for her infant. Each hospital with a maternity service will be required to designate at least one person who is thoroughly trained in breastfeeding physiology and management to be responsible for presentation of an effective breastfeeding instruction program. Hospitals will be required to carry out policies and procedures such as: prohibiting the use of standing orders for antilactation drugs; assisting the infant to breastfeed immediately following delivery, unless contraindicated; providing for the infant to be fed on demand; restricting supplemental feedings to those indicated by a medical condition of infant or mother; and restricting distribution of discharge packs of infant formula to an individual order by the attending physician or the specific request of the mother.

Human Milk Banks

Human milk banks appear to be increasing in number. Besides serving as a source of human milk, many of the banks instruct mothers about improved techniques for expression and storage of milk. For example, the Hawaii Mother's Milk Bank provides training to health professionals. The Mother's Milk Bank of San Jose (CA) has developed a manual for use by facilities desiring to set up human milk banks. The Community Human Milk Bank, Georgetown University Hospital (DC) issues a periodic Donor Newsletter to promote communication among donors and provide new information from staff.

WORLD OF WORK

Recommendation: Initiate a national breastfeeding promotion directed to women in the world of work

The focus of this recommendation is the importance of facilitating the employed woman's opportunity to breastfeed. An increasing number of women are involved in school, job training, professional education, and employment, and these mothers frequently receive negative messages about breastfeeding. Moreover, institutional policies and practices in the workplace, and the lack of appropriate support systems, often act as barriers to successful lactation.

Many individuals and agencies have reported that followup on the workshop recommendation is being deferred until a sound base of public and professional education has been established. However, several types of activities have been carried out to reach those who can influence breastfeeding decisions and improve opportunities for women in the world of work. These efforts are related to improvement of the data base, provision of information and education, review of institutional policies, loan of breast pumps, and development of model or demonstration programs. Examples of such efforts follow.

Data Base

With support from a Ford Foundation grant, researchers at the Tufts University School of Nutrition have studied various aspects of women's employment and infant feeding. One survey of more than a thousand new mothers investigated interactions between childbirth, women's employment, and infant feeding, with a special focus on mothers who plan to combine breastfeeding and working. Another survey involved telephone interviews of 81 working mothers who were still breastfeeding their infants at six months postpartum. This survey focused on factors responsible for their ability to continue breastfeeding after early postpartum return to work. Neither of these studies has been published to date; however, a two-volume book by researchers Zeitlin, Schossman, and Connell, entitled *Women's Employment and Early Return to Work and Time Use of Working Mothers*, is scheduled for publication in January 1986. Also underway at Tufts is a study of employers' attitudes toward new mothers and maternity benefits.

Information/Education

A statewide organization, Wisconsin Nutrition Project, Inc., which promotes breastfeeding and is an advocate for the nutrition and health needs of low-income individuals, developed a 24-page illustrated guide,

Mother's Handbook—Combining Breastfeeding with Work or School. It is available in English and Spanish. Another new book, *Breastfeeding Success for Working Mothers*, was written by Marilyn Grams, M.D. to assist working breastfeeding mothers.

At the University of Nebraska Medical Center, a sociologist who specializes in lactation has discussed breastfeeding and maternal employment in television and radio interviews, articles in several professional journals, and newsletters for parents and professionals.

An increasing number of primary health care programs in different geographic areas of the nation are providing information to mothers about maintaining breastfeeding after their return to work or school. For example, the Lyndon Baines Johnson Health Complex, Inc., in Brooklyn, NY provides educational programs and counseling sessions for staff in six day-care centers and seven schools to help them support working breastfeeding mothers. The Syracuse Community Health Center (NY) provides individual patient counseling, educational materials in several languages, and support and advice from individuals who have successfully combined breastfeeding and employment. At Segundo Ruiz-Belvis Neighborhood Family Care Center, Bronx, NY, breastfeeding for the working woman is included in the health maintenance protocols developed for women and teenage girls.

Institutional Policies

The Task Group on Policy and Legislation, one of six groups of the Steering Committee to Promote Breastfeeding in New York City, studied policies in the workplace as they relate to the working woman's ability to breastfeed. Objectives of the Task Group include the formulation of breastfeeding promotion guidelines and recommendations for corporations, unions, and health professionals who work with these organizations. The pivotal role of the occupational health nurse in effecting change in the workplace to make it feasible for working mothers to breastfeed was the subject of an article, "Promoting Prenatal Care and Breastfeeding in the Workplace." Published in *Occupational Health Nursing* (February 1985), the article emerged from the activities of the Steering Committee.

Breast Pump Loan Programs

To support continued breastfeeding among working mothers, mothers who are in school or training programs, and mothers who may need pumps because of illness, the Hamilton County (OH) Women, Infants, and Children program makes a limited number of breast pumps available for loan. In Boston, MA the Bank of Boston purchased electric breast pumps for employee use.

Model/Demonstration Programs

With support from a Title V Maternal and Child Health Improvement Project grant, the National Child Nutrition Project in Philadelphia, PA is conducting a breastfeeding project to increase the incidence and duration of breastfeeding among women, particularly working mothers, in three project sites in Department of Health and Human Services Region III. The major objectives of the project are: 1) to provide mothers with sufficient information and support to enable them to breastfeed successfully, 2) to provide

continuing education for health professionals to facilitate a positive attitude toward breastfeeding and working, and 3) to influence work environments and day care settings that will provide a supportive atmosphere for the working mother. The three-part strategy for this project includes a maternal breastfeeding education and support network comprised of local women who have previously breastfed successfully and continued breastfeeding after return to work; a staff education component to provide information on breastfeeding, particularly on issues that relate to working women; and a program to facilitate changes in the child care and employment settings to accommodate breastfeeding women who return to work.

RESEARCH

Recommendation: Expand research in human lactation and breastfeeding

In order to improve the information base, establish policy, improve and target strategies, assess program effectiveness, and determine progress in achieving goals related to the promotion of breastfeeding, an intensified national research effort with a broad range of research studies is essential. This recommendation focuses on the need for basic studies, clinical studies, evaluation of information studies, and prospective and longitudinal studies related to breastfeeding. Although research related to lactation and breastfeeding has received considerable attention and support in recent years, the Surgeon General's Workshop reaffirmed the importance and need for continued and expanded research efforts. Federal agencies within the Department of Health and Human Services which support research in maternal and child health, especially the National Institute of Child Health and Human Development of the National Institutes of Health and the Division of Maternal and Child Health of the Health Resources and Services Administration, include lactation and breastfeeding as priority areas for competitive grant support. In addition, the United States Department of Agriculture supports a significant number of research efforts related to human lactation.

The various studies — underway, planned, or recently completed — seem to focus on the following areas: the collection of data on incidence and duration of breastfeeding; determinants and factors related to breastfeeding behavior, practices, and attitudes; physiological, nutritional, and other aspects of human lactation; and the development and evaluation of interventions and strategies to promote breastfeeding. Examples of research studies in each of these areas are provided below.

Trend Data

Many Maternal and Child Health programs and Women, Infants, and Children programs in state and local health agencies are collecting data to determine the incidence and duration of breastfeeding. For example, the Montana State Department of Health and Environmental Sciences is involved in an ongoing pediatric nutrition survey that provides for statewide monitoring of breastfeeding. A survey of infant feeding practices, using a sample drawn from birth certificates, is underway in the Section of Family Health of the Alaska Department of Health and Social Services. The Nebraska and Tennessee Nutrition and Women, Infants, and Children programs are collecting similar data through their surveillance systems.

Numerous community health centers in different geographic areas are gathering baseline data to use in planning intervention strategies.

The Maine Newborn Breastfeeding Surveillance Program monitors the rate of breastfeeding of newborns in all hospitals in Maine using data from the mandatory newborn screening program for metabolic disorders.

Significant national studies are either continuing to collect or update data, and earlier data are being analyzed, published, and disseminated. Such efforts included the Ross Laboratories National Mothers Survey and the Department of Health and Human Services/National Center for Health Statistics' National Survey of Family Growth, National Health Interview Survey-Child Health Supplement, National Natality Survey, and Health and Nutrition Examination Survey.

Determinants/Behaviors/Practices/Attitudes

Behavioral and attitudinal determinants of breastfeeding are the focus of many current research projects. Some of these research projects are mentioned below:

- "Factors Affecting Breastfeeding Duration," a study at the Department of Human Nutrition and Food Service Management, University of Nebraska, conducted by Nancy Lewis and H.M. Fox, focused on the development of a method to identify women who plan to breastfeed but either do not initiate it or stop breastfeeding within two months postpartum. Subjects included 45 WIC program participants who were surveyed by telephone within one year after their babies were born. The survey questionnaire used was designed to identify factors related to breastfeeding success.
- At the University of California at Berkeley, Barbara Vandenberg is investigating the effects of breastfeeding on the health and development of infants. This epidemiological study, "Breastfeeding: Evaluation of Antecedents and Effects," is supported by a National Institute of Child Health and Human Development grant.
- "Infant Feeding Beliefs and Practices of First-time, Inner City Mothers" was the title of a study conducted by Elizabeth Burki and Janet Reis at Northwestern University (IL) and reported in *WIC CURRENTS* (Ross Laboratories). Using a sample of 19 clients from an inner-city clinic that provides health care services primarily to medically indigent Black and Hispanic families, interviews were conducted in prenatal and postpartum clinics. Specific aspects of concern were the accuracy of mothers' knowledge of feeding tasks and understanding of an infant's feeding needs, sources of information or influence for tasks and problems related to infant feeding, and attitudes and influences that affected the decision to breastfeed or bottle-feed the baby.
- "Determinants of Infant Feeding: Breast vs. Bottle" is the subject of a study being conducted by Ruth Faden at Johns Hopkins University School of Public Health (MD). It is jointly supported by the Division of Maternal and Child Health and the National Institute of Child Health and Human Development. The study seeks to identify major determinants of infant feeding behavior in new mothers, and, for mothers electing breastfeeding, the major determinants of duration of breastfeeding. Both urban and rural subjects are included in the study.

- “Maternal Employment and Breast-Feeding: A Study of 567 Women’s Experiences,” conducted by K.G. Auerbach and others at the University of Nebraska Medical Center, was published in the *American Journal of Diseases of Children* in 1984.
- “The Decision to Breastfeed: A Study of Low-Income MIC Patients in New York” was carried out by Donna O’Hare and others, and presented at the 1984 annual meeting of the American Public Health Association. The study surveyed the choice of infant feeding method of 909 women enrolled at eight Maternity and Infant Care-Family Planning Project Clinics during Spring and Summer 1984. The findings substantiated those of other investigators and found that the majority of women make the decision to breastfeed prior to pregnancy.
- “Economic and Demographic Determinants of Infant Feeding” is one component of the Rand Corporation’s (Santa Monica, CA) ongoing population studies funded by the National Institute of Child Health and Human Development.
- “Infant Feeding Practices Among Primiparae” is a prospective study of the frequency and duration of infant feeding practices, being conducted by Survey Research Associates, Inc. of Baltimore, MD, with support of the National Institute of Child Health and Human Development.
- Sharron Humenick at the School of Nursing of the University of Wyoming in Laramie is conducting “A Study of Early Management of Breastfeeding.”
- “Infant Feeding Practices Tracking Study” is supported by the Department of Health and Human Services/Food and Drug Administration. It is intended to provide information about the prenatal and postnatal influences upon infant feeding plans and behaviors, and to provide detailed real-time (i.e., not retrospective) information about actual feeding practices.
- “Mother-Infant Social Interaction During Breastfeeding” is a study being conducted by Lawrence Hoder at the Clinical Nutrition Research Center at Yale University with support from the National Institutes of Health.
- “Determinants of Mothers’ Infant Feeding Practices” was the subject of a study by Steven Wirtz at Brigham and Women’s Hospital in Boston, MA.
- “Attitudes of Migrants toward Breastfeeding” is a survey being conducted by David Myers at Plan de Salud del Valle, Inc. in Fort Lupton, CO.

Physiology/Nutrition/Other Aspects

A wide variety of studies on the physiological, nutritional, and related aspects of human lactation and breastfeeding are in process. Mentioned below are some of these studies:

- In followup of the Surgeon General’s Workshop, the National Institute of Child Health and Human Development announced a Request for Applications for investigator-initiated research grant applications for studies on the physiology of lactation and the biology of human colostrum and milk. It was recognized that a concerted effort was needed to explore the physiological processes occurring in the breast, from the time of conception through lactation and weaning, in order to understand the development and function of lactating tissue. Concomitantly, the functional

properties of colostrum and human milk need to be evaluated in the context of the roles they play in infant development.

- The recommendation of the Surgeon General's Workshop for intensified research to provide data on the benefits and contraindications of breastfeeding led the National Institute of Child Health and Human Development to sponsor the Workshop on Methods of Analysis of Human Milk and Colostrum. Following this workshop a Request for Proposal was announced on this topic for research to develop highly accurate microtechniques to determine the composition of human milk and to validate the techniques on human milk. It is anticipated that multiple awards will be made in 1986.
- The Department of Health and Human Services/National Institutes of Health, primarily through the National Institute of Child Health and Human Development, supports numerous other research projects related to physiological, nutritional, and other aspects of human lactation and breastfeeding. A list of these projects is provided in Appendix B under the following categories: physiology of lactation, maternal nutrition aspects, infant physiology, infant nutrition aspects, composition of human milk, immunological aspects, and human milk banks.
- The National Institute of Child Health and Human Development will sponsor an international conference on the Effects of Maternal and Environmental Factors of Human Lactation to be held January 15-19, 1986, in Mexico. It is expected that new research initiatives will emanate from this meeting.
- Drugs in breast milk continued to be studied by John T. Wilson and other staff of the Departments of Pharmacology and Therapeutics and Pediatrics at Louisiana State University. A recent paper, "Pharmacokinetic Pitfalls in Estimation of the Breast Milk/Plasma (M/P) Ratio for Drugs" was submitted for publication in late 1984.
- In cooperation with Purdue University, a followup study, entitled "Nutritional Intake of Breastfed Infants Especially Related to Vitamin B6, Folic Acid, and Ascorbic Acid" is underway at Ball State University in Indiana.
- A variety of research related to human lactation and breastfeeding is supported by the United States Department of Agriculture, principally through its Human Nutrition Research Centers and Agricultural Experiment Stations. A list of research studies related to human subjects is provided in Appendix C.

Interventions/Strategies

Other research activity centers around the value of different interventions and strategies in promoting breastfeeding. A couple of examples are listed below:

- "Breastfeeding Promotion in a Low-Income Population" is a Title V Maternal and Child Health Improvement Project conducted by Lindsey Grossman at Ohio State University. This project will identify factors associated with the decision by poor women to breastfeed; identify and test interventions designed to increase breastfeeding in low-income women, such as postpartum lactation support provided by a peer-mentor and education aimed at the mother's key support person; and test the

generalizability of those interventions in a wider but demographically similar clinical setting.

- “A Randomized Trial to Promote the Duration of Breastfeeding” is the subject of a study at Boston University School of Public Health and Boston City Health and Hospitals by James Sorenson and Deborah Frank with support from the National Institute of Child Health and Human Development.

NATIONAL AWARENESS

The positive impact of the Surgeon General's Workshop on Breastfeeding and Human Lactation continues to be observed and experienced throughout our nation. This is largely due to the diverse group of individuals, agencies, and organizations in the private and public sectors who are responding to the challenge of the workshop's recommendations. Participants in the workshop, as well as others who have learned about it through the widely disseminated Workshop Report, have extended the workshop messages to a much broader audience. The Healthy Mothers, Healthy Babies Coalition's Breastfeeding Subcommittee serves as the ongoing focal point for collecting and disseminating information about breastfeeding promotion activities and facilitating new efforts. One of its future efforts will be a poll to determine public attitudes about breastfeeding.

Following are selected examples of the variety of efforts made to increase awareness of the national breastfeeding objective and to stimulate followup in communities across the nation:

- Since January 1984, the journals of several professional organizations included articles on breastfeeding and reports of the Workshop. These include The American Dietetic Association (18 articles), American Academy of Pediatrics (19 articles), National Association of Pediatric Nurse Associates and Practitioners (1 article), Nurses Association of the American College of Obstetricians and Gynecologists (3 articles), American College of Obstetricians and Gynecologists (2 articles), American Public Health Association (1 article), American Academy of Family Physicians (1 article), and National Perinatal Association (1 article).
- Reports of the Workshop also appeared in such journals and newsletters as the following:
 - Perinatal Section News*, American Academy of Pediatrics, Vol. 10, No. 1, January, 1985 (Vince L. Hutchins).
 - Morbidity and Mortality Weekly Report*, Centers for Disease Control, December, 1984 (James S. Marks).
 - Public Health Reports*, Vol. 99, No. 6, November-December, 1984 (Joyce Arango, C. Everett Koop, and Elizabeth Brannon).
 - Occupational Health Nursing*, February, 1985 (Marybeth Petschek and Rosemary Barber-Madden).
- The popular press also provided information about breastfeeding. Examples include:

Good Housekeeping, April, 1985 (David Zimmerman).
Clothed with the Sun, Vol. 4, No. 3, Autumn, 1984.

- Other awareness events included: emphasis on breastfeeding at meetings of national and state professional organizations, such as the Second Annual Conference of the National Association of Women, Infants, and Children Directors (with a presentation at the plenary session and two workshops on promotion of breastfeeding); the 1984 annual meetings of the American Public Health Association (where 25 papers were presented in five sessions); the American Dietetic Association (where four presentations were made on breastfeeding); the American Medical Women's Association (where three speakers presented a two-hour panel on "Breastfeeding: Who Does, Who Doesn't and Why?"), and the National Perinatal Association (which included a session on this topic). La Leche League International sponsored a three-day national conference on breastfeeding.

CONTRIBUTORS

The information abstracted in this report was received from many different individuals, organizations, and agencies in the public and private sectors. Names and addresses of individuals and agencies who forwarded materials and information directly to the Surgeon General's Office, or to the Division of Maternal and Child Health in Rockville, MD are listed below. In addition, the name of a contact person and address of each Department of Health and Human Services Regional Office is provided, since staff in these offices collected and summarized considerable material and information submitted by the states they serve.

If additional information is desired, inquiries should be directed to the state health agency or the Department of Health and Human Services Regional Office which serves the state in which the activity occurred, or to the specific individual or agency, identified below.

Diane Anderson, M.S., R.D.
Rainbow Babies and Children's Hospital
Case Western Reserve University
2101 Adelbert
Cleveland, OH 44106

George Braley
Special Nutrition Programs
Food and Nutrition Service, USDA
3101 Park Center Drive
Alexandria, VA 22302

Kathleen G. Auerbach, Ph.D.
Department of Obstetrics and
Gynecology
42nd and Dewey Avenue
Omaha, NE 68105

Carol Bryant, Ph.D.
Lexington-Fayette County
Health Department
650 Newtown Pike
Lexington, KY 40508

Marta I. Baez, R.D., M.S.
SPRANS Project Coordinator
Albert Einstein College of Medicine
of Yeshiva University
1300 Morris Park Avenue
Bronx, NY 10461

Sallie Eissler, R.N., M.S.N., C.P.N.P.
Maternal/Child Health
Greater Southeast Community Hospital
1310 Southern Avenue, SE
Washington, DC 20032

Lee Baxandall
Naturist Society
P.O. Box 132
Oshkosh, WI 54902

Ruth R. Faden, Ph.D., M.P.H.
The Johns Hopkins University
School of Hygiene and Public
Health
615 North Wolfe Street
Baltimore, MD 21205

Marilyn Grams, M.D.
c/o Achievement Press
Box 608
Sheridan, WY 82801

Elena Grant
V.P. Natural Technologies, Inc.
P.O. Box 1704
Beaverton, OR 97005

Therese Hadley
Wisconsin Nutrition Project, Inc.
1045 Dayton Street, Room 204
Madison, WI 53703

Doris Haire
American Foundation for Maternal
and Child Health, Inc.
30 Beekman Place
New York, NY 10022

Chandice C. Harris, R.N., M.S.N.
Parent-Child Coordinator
The University of Michigan
Medical School
Ann Arbor, MI 48109

Jaye Helferd, M.S., R.D.
Cornell University Cooperative
Extension
Bronx Nutrition Education Program
Suite 602, 2021 Grand Concourse
Bronx, NY 10453

Marci Kramish, R.D., M.P.H.
Family Medicine Center
Durham Health Care, Inc.
407 Crutchfield Street
Durham, NC 27704

Minda Lazarov, M.S., R.D.
Breast Feeding Task Force
Tennessee Department of
Health & Environment
Bureau of Health Services
100 9th Avenue North
Nashville, TN 37219-5409

MCH News PAC
PBMCHRC
University of Guam
UOG Substation
Mangilao, GU 96913

Mavis McGuire, R.N., M.A., C.P.N.P.
National Association of Pediatric Nurse
Associates & Practitioners
1000 Maplewood Drive, Suite 104
Maple Shade, NJ 08052

Solbritt Murphy, M.D.
Bureau of Maternal and Child Health
New York State Health Department
Albany, NY 12237

Deborah Myers, M.S.
The Population Council
One Dag Hammarskjold Plaza
New York, NY 10017

A.W. Myres
Senior Program Officer
Child and Family Health Unit
Health and Welfare
Ottawa, Ontario, Canada K1A 1B4

Christine M. Olson, Ph.D., R.D.
Division of Nutritional Sciences
376 MVR Hall
Cornell University
Ithaca, NY 14853

Joan Pelto, R.D., M.S.
Chief Nutritionist
Department of Health and Social
Services
Juneau, AK 99811-9976

Lynn Pertou, M.A., R.D.
Chief Nutritionist
Pediatric Ambulatory Care
St. Luke's Roosevelt Hospital Center
428 West 59th Street
New York, NY 10019

Ilene S. Rice
Heartstart Publications
2392 Nancy Place
St. Paul, MN 55113

Diane Revitte
Health Education Consultant
State of Michigan
Department of Public Health
3500 North Logan
P.O. Box 30035
Lansing, MI 48909

Jeanne Rose
International Childbirth Education, Inc.
P.O. Box 20048
Minneapolis, MN 55420-0048

Ross Laboratories
625 Cleveland Avenue
Columbus, OH 43216

Sandra Sherman
National Child Nutrition Project, Inc.
101 North 33rd Street
Philadelphia, PA 19104

Robert Silverthorne
Motion, Inc.
3138 Highland Place, NW.
Washington, DC 20008

Elizabeth Spencer, R.D., M.S.
Public Health Nutritionist
City-County Health Department
720 Second Avenue
Eau Claire, WI 54703

Jo-Ann Thorpe
The New York City Breastfeeding
Campaign
The New York State Department of
Health
8 East 40th Street
New York, NY 10016

Edith Tibbetts
Health Education Associates, Inc.
211 South Easton Road
Glenside, PA 19038

Jennifer Vickery
Health Education
Catawba Public Health District
Chester-Lancaster-York Counties
South Carolina Department of Health
and Environmental Control
Box 817
Lancaster, SC 29720

Janet Washington
Department of Dietetics and Nutrition
Brigham-Women's Hospital
75 Francis Street
Boston, MA 02115

John T. Wilson, M.D.
Louisiana State University Medical
Center
P.O. Box 33932
Kings Highway
Shreveport, LA 71130

Beverly Winikoff, M.D., M.P.H.
Senior Medical Associate
The Population Council
One Dag Hammarskjold Plaza
New York, NY 10017

REGIONAL NUTRITION STAFF

Department of Health and Human Services
Public Health Service
Division of Health Services Delivery

Region I: Connecticut, Maine, Mas-
sachusetts, New Hampshire, Rhode
Island, Vermont

Jean Collins (Sanford) Norris
Regional Nutrition Consultant
HHS/PHS/Division of Health Services
Delivery-Clinical Affairs
JFK Federal Building, Room 1401
Boston, MA 02203
Commercial Phone: 617-223-6668-or 9
FTS: 8-223-6668 or 9

Region II: New Jersey, New York,
Puerto Rico, Virgin Islands

Mariel Caldwell
Regional Nutrition Consultant
HHS/PHS/Division of Health
Services Delivery
Family and Child Services Unit
Federal Building, Room 3302
26 Federal Plaza
New York, NY 10278
Commercial Phone: 212-264-2708
FTS: 8-264-2708

Region III: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

Connie Lotz
Regional Nutrition Consultant
HHS/PHS/Maternal and Child Health
P.O. Box 13716, Room 4484
Gateway Building
Philadelphia, PA 19101
Commercial Phone: 215-596-1561
FTS: 8-596-1561

Region V: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Colette Zyrkowski
Regional Nutrition Consultant
Maternal and Child Health/Family Planning
HHS/PHS/Division of Community Health Services Delivery
300 Wacker Drive, 34th Floor
Chicago, IL 60606
Commercial Phone: 312-353-1700
FTS: 8-353-1700

Region VII: Iowa, Kansas, Missouri, Nebraska

Frank LoGiudice
Regional Nutrition Consultant
National Health Service Corps
601 East 12th Street
5th Floor West
Kansas City, MO 64106
Commercial Phone: 816-374-2916
FTS: 8-758-2916

Region IX: American Samoa, Arizona, California, Guam, Hawaii, Marshall Islands, Federated States of Micronesia, Nevada, Northern Mariana Islands, Palau

Gladys Matthewson
Regional Nutrition Consultant
HHS/PHS Division of Health Services
50 United Nations Plaza,
Room 341
San Francisco, CA 94102
Commercial Phone: 415-556-0197
FTS: 8-556-0197

Region IV: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Beth Duncan/Kathy Wengen
Regional Nutrition Consultants
HHS/PHS/Division of Health Services Family Health and Services Branch
101 Marietta Towers, Room 1202
Atlanta, GA 30323
Commercial Phone: 404-331-5254
FTS: 8-242-5254

Region VI: Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Frances Vines
Regional Nutrition Consultant
HHS/PHS/Division of Health Services Delivery
1200 Main Tower Building,
Room 1835
Dallas, TX 75202
Commercial Phone: 214-767-3022
FTS: 8-729-3022

Region VIII: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Cynthia Chung
Regional Nutrition Consultant
HHS/PHS/DHSD-Program Operations Branch
1961 Stout Street, Room 1194
Federal Building
Denver, CO 80294
Commercial Phone: 303-844-5955
FTS: 8-564-5955

Region X: Alaska, Idaho, Oregon, Washington

Jean Kajikawa
Regional Program Consultant, MCH
HHS/PHS Family and Child Health Program
2901 Third Avenue, MS 404
Seattle, WA 98121
Commercial Phone: 206-442-1020
FTS: 8-399-1020

APPENDIX A

TASK FORCE ON PROFESSIONAL TRAINING IN LACTATION

MODEL POLICY STATEMENT*

Promotion of Breastfeeding in the Context of Health Care: Professional Training Priorities

Health care professionals, as the source of comprehensive health services for women and infants, should provide leadership in education regarding the benefits of breastfeeding as the optimum nourishment of infants, in order to facilitate an informed choice of infant feeding. Their professional training should include: emphasis on lactation as a physiologic component of the reproductive cycle, on human milk as an ideal natural and economic food during infancy, on breastfeeding as a central part of family life, and on coordination of other community resources available to the family. This training should enable health professionals to provide skilled services to assist in the preparation, initiation, and continuation of breastfeeding. Such training should be integrated into the continuum of health care.

It is imperative for health care professionals to receive adequate basic and ongoing theoretical and practical training in lactation and breastfeeding, and to develop skills which have cross-cultural application in patient education and the management of breastfeeding.

GOAL OF THE TASK FORCE

To identify and reduce barriers which keep women from beginning or continuing to breastfeed their infants. (Based on the Surgeon General's charge to the Surgeon General's Workshop on Breastfeeding and Human Lactation.)

* This statement was prepared by the Task Force on Professional Training in Lactation, June 1985. The following organizations and agencies are members of the Task Force: American Academy of Family Physicians, American Academy of Pediatrics, American College of Nurse-Midwives, American College of Obstetricians and Gynecologists, American Dietetic Association, American Home Economics Association, American Hospital Association, American Medical Association, American Nurses' Association, American Public Health Association, American Society of Clinical Nutrition, Association for Maternal and Child Health and Crippled Children's Programs, Association of Teachers of Maternal and Child Health, La Leche League International, March of Dimes Birth Defects Foundation, National Association of Community Health Centers, National Association of Pediatric Nurse Associates and Practitioners, National Perinatal Association, National Rural Health Care Association, Nurses Association of the American College of Obstetricians and Gynecologists, U.S. Department of Agriculture/Food and Nutrition Service, and U.S. Department of Health and Human Services/Health Resources and Services Administration.

OBJECTIVES OF THE TASK FORCE

- 1) By 1990, didactic and clinical training in lactation and breastfeeding will be integrated within existing required curricula of health professional schools, particularly in medicine, nursing, and dietetics.
- 2) By 1990, all advanced training programs (e.g., graduate education and residencies) of health professionals providing services for women and children shall include appropriate content on management of breastfeeding and lactation.
- 3) By 1990, continuing education programs and publications offered by appropriate professional organizations at the national, state, and local levels will include lactation and breastfeeding as part of a regular educational cycle for health professionals in practice.
- 4) By 1990, health care facilities and professional organizations involved in the training of health care professionals will develop and implement guidelines for updating current practices within the health care system in order to support optimal breastfeeding and lactation management, and serve as an effective training field.
- 5) By 1990, professional organizations shall provide a means for self-assessment of their membership to identify gaps in knowledge, skills, and practice of the management of breastfeeding and lactation.

APPENDIX B

RESEARCH ON HUMAN LACTATION AND BREASTFEEDING SUPPORTED BY THE NATIONAL INSTITUTES OF HEALTH, DEPARTMENT OF HEALTH AND HUMAN SERVICES*

Physiology of Lactation

- "Symposium on Nutrition and Lactation," Margaret C. Neville, University of Colorado Health Sciences Center, Denver, CO.
- "Physiological Factors Affecting Human Lactation," Margaret C. Neville, University of Colorado Health Sciences Center, Denver, CO.
- "Mechanisms in Nutrient Transport into Cells," Margaret C. Neville, University of Colorado Health Sciences Center, Denver, CO.
- "Filamentous Proteins in Milk Synthesis and Secretion," Robert F. Loizzi, University of Illinois, Chicago, IL.
- "Hormonal Control of Metabolism in the Mammary Gland," James A. Rillema, Wayne State University, Detroit, MI.
- "Neural and Hormonal Regulation of Lactation," Clark E. Grosvenor, University of Tennessee, Memphis, TN.
- "Neurochemical Control of Oxytocin Release," Clark E. Grosvenor, University of Tennessee, Memphis, TN.
- "Control of Gonadotropin Secretion During Lactation," Susan M. Smith, University of Pittsburgh, Pittsburgh, PA.
- "The Physiologic Control of Prolactin Secretion," Jimmy D. Neill, University of Alabama, Birmingham, AL.
- "Bioactive Forms of Prolactin: Regulation of Secretion," David M. Lawson, Wayne State University, Detroit, MI.
- "Regulatory Cell Biology of Prolactin Targets," Janet M. Nolin, University of Richmond, Richmond, VA.
- "The Effect of Hyperprolactinemia on Cyclic LH Release," Phyllis M. Wise, University of Maryland, Baltimore, MD.
- "Central Regulation of Oxytocin Secretion," Edwin W. Haller, University of Minnesota, Duluth, MN.
- "Immunochemical Analysis of Estrophilin in Mammary Gland," Thomas C. Allen, University of Louisville, Louisville, KY.
- "Improving Estimate of Length of Postpartum Amenorrhea," Kathleen Ford, Johns Hopkins University, Baltimore, MD.
- "Predictors of Ovulation in Lactating Women," Ronald H. Gray, Johns Hopkins University, Baltimore, MD.

* Source: Federal Human Nutrition Research and Information Management System, 1984.

- “Postpartum Effects of Adolescent Pregnancy,” Mark E. Wilson, Emory University, Atlanta, GA.
- “Sex Hormones in the Regulation of Calcium Homeostasis,” Mary L. Thomas, University of Texas Medical Branch-Galveston, Galveston, TX.
- “Vitamin D and Calcium in Lactating and Suckling Rats,” Svein U. Toverud, University of North Carolina, Chapel Hill, NC.
- “Vitamin A Transport during Lactation,” Alta C. Ross, Medical College of Pennsylvania, Philadelphia, PA.
- “Vitamin D Metabolism during Reproduction,” Susan K. Paulson, Northwestern University, Chicago, IL.
- “Nutritional Role of Manganese Binding Molecules in Milk,” Wai-Yee Chan, University of Oklahoma, Oklahoma City, OK.

Maternal Nutrition Aspects

- “Mechanisms by which Malnutrition Affects Lactation,” Kathleen M. Rasmussen, Cornell University, Ithaca, NY.
- “Supplemental Fluids and Breast Milk Production,” Lois B. Dusdeiker, University of Iowa, Iowa City, IA.
- “Lactation: Diet, Drinking, Smoking, and Infant Growth,” Ruth E. Little, University of Washington, Seattle, WA.
- “Transfer of Persistent Chemicals to Offspring,” John J. Lech, Medical College of Wisconsin, Milwaukee, WI.
- “Longitudinal Study of Zinc Nutrition in Pregnancy and Lactation,” Michael K. Hambidge, University of Colorado Health Sciences Center, Denver, CO.
- “Mothers and Newborns Admitted for Cholesterol Homeostasis on Breast and Formula,” Lisa C. Hudgins, Rockefeller University, New York, NY.

Infant Physiology

- “Milk and Amniotic Fluid Surfactants in Gastrointestinal Development,” L.M. Lichtenburger, University of Texas Health Science Center, Houston, TX.
- “Role of Nutrient in Gastrointestinal Maturation and Motility,” Frank H. Morriss, University of Texas Health Science Center, Houston, TX.
- “Development of the Gastrointestinal Mucosal Barrier,” Kam-Yee Pang, Massachusetts General Hospital, Boston, MA.
- “Postnatal Development of Bile Salt Transport,” James E. Heubi, Children’s Hospital Medical Center, Cincinnati, OH.
- “Metabolism of ¹³C Compounds in Digestive Diseases,” Peter D. Klein, Baylor College of Medicine, Houston, TX.
- “Maturation of Neonatal Carbohydrate Homeostasis,” Richard M. Cowette, Women and Infants Hospital-Rhode Island, Providence, RI.

Infant Nutrition Aspects

- “Body Composition in Neonates,” William J. Klish, University of Rochester, Rochester, NY.

- “Cellular Growth of Skeletal Muscles: Influences of Diet,” Donald K. Layman, University of Illinois at Urbana-Champaign, Urbana, IL.
- “Measurement of Milk Intake in Newborns,” William W. Hay, Jr., University of Colorado Health Sciences Center, Denver, CO.
- “Infant Nutrition and Adipocyte Number,” Edward J. Masoro, University of Texas Health Science Center, San Antonio, TX.
- “Genetic and Gestational Influences on Childhood Obesity,” Fredda V. Ginsberg-Fellner, Mount Sinai School of Medicine, New York, NY.
- “Conservative Nutritional Energy Substrate in Neonate Nursed Under Radiant Warmer,” Stephen Baumgart, Children’s Hospital of Philadelphia, Philadelphia, PA.
- “Enteral Feeding Comparison of Whey Based Formula and Human Milk,” John A. Kerner, Stanford University, Stanford, CA.
- “Clinical Studies on Human Milk,” Buford L. Nichols, Baylor College of Medicine, Houston, TX.
- “Protein Requirements of Normal Infants,” Samuel J. Fomon, University of Iowa, Iowa City, IA.
- “Carbohydrate Energy Absorption in Premature Infants,” Craig L. Kien, West Virginia University, Morgantown, WV.
- “Physical-Chemical Studies of Fat Absorption in Newborns,” Olle C.E. Hernell, Brigham and Women’s Hospital, Boston, MA.
- “Infant Milk Feeding and Serum Cholesterol: U.S. Children,” Maradee A. Davis, University of California, San Francisco, CA.
- “Infant Folate Nutrition: Effects of Factors in Milk,” Neville Colman, Mount Sinai School of Medicine, New York, NY.
- “Dietary Mineral Bioavailability in Premature Infants,” Richard A. Ehrenkranz, Yale University, New Haven, CT.
- “Calcium and Phosphorous Nutrition in High-Risk Infants,” Reginald C. Tsang, University of Cincinnati, Cincinnati, OH.
- “Rickets in Low Birth Weight Infant: Using Human Milk,” Winston W.K. Koo, Children’s Hospital Medical Center, Cincinnati, OH.
- “Vitamin D. Requirement for Low Birth Weight Infants,” Bruce W. Hollis, Case Western Reserve University, Cleveland, OH.
- “Studies of Human Zinc Deficiency,” Michael K. Hambidge, University of Colorado Health Sciences Center, Denver, CO.
- “Pathogenesis of Neonatal Jaundice and Kernicterus,” Lawrence M. Gartner, University of Chicago, Chicago, IL.

Composition of Human Milk

- “Conference on Methods for the Analysis of Human Milk,” Robert G. Jensen, University of Connecticut, Storrs, CT.
- “Identification of Components of Colostrum and Human Milk,” Robert G. Jensen, University of Connecticut, Storrs, CT.
- “Identification of Components of Colostrum and Human Milk,” Margit Hamosh, Georgetown University, Washington, DC.
- “Research in Perinatal Medicine,” Ian Gross, Yale University, New Haven, CT.

- "Evaluation of the Nutritional Quality of Preterm Human Milk," Richard Ehrenkranz, Yale University, New Haven, CT.
- "Purification, Characterization of Milk Growth Factors," Michael Klagsbrun, Children's Hospital Medical Center, Boston, MA.
- "Regulation of Triglyceride Composition of Milk," Stuart Smith, Children's Hospital Medical Center of Northern California, Oakland, CA.
- "The Choline Content of Milk," Steven H. Zeisel, Boston University, Boston, MA.
- "Characterization of Membrane Material in Human Milk," Stuart Patton, University of California-San Diego, La Jolla, CA.
- "Taurine, Carnitine, and Amino Acids in Human Milk," Peggy R. Borum, Vanderbilt University, Nashville, TN.
- "Bioavailability of Trace Metals in Human Milk," Rodney R. Howell, University of Texas Health Science Center, Houston, TX.
- "Human Milk Selenium Content and Distribution," Mary F. Picciano, University of Illinois at Urbana-Champaign, Urbana, IL.
- "Thyroid Hormone in Preterm Breast Milk," Gilberto R. Pereira, Children's Hospital of Philadelphia, Philadelphia, PA.

Immunological Aspects

- "Immune Regulation of Human Milk," Larry K. Pickering, University of Texas Health Science Center, Houston, TX.
- "Immunologic Defenses Against Infection in Human Milk," Margaret A. Keller, Los Angeles County Harbor-UCLA Medical Center, Torrance, CA.
- "Identification of Components of Colostrum in Human Milk," Margaret A. Keller, Los Angeles County Harbor-UCLA Medical Center, Torrance, CA.
- "Immune Responses of Newborns to Ingested Antigens," Richard M. Rothberg, University of Chicago, Chicago, IL.
- "Human Milk and Immune Development in Premature Infants," Mark Ballow, University of Connecticut, Farmington, CT.
- "Immunocompetence of Colostrum during Viral Infections," Pearay L. Ogra, Children's Hospital, Buffalo, NY.
- "Colostrum Cell Markers, Function and Regulation," Ellen Richie, University of Texas Health Science Center, Houston, TX.
- "The Effect of Colostrum on Gut Maturation and Host Defense," Allan W. Walker, Massachusetts General Hospital, Boston, MA.
- "Immunological Characterization of Human Colostrum Cells," Sylvia Crago, University of New Mexico, Albuquerque, NM.
- "Effects of Colostrum on Immune Responsiveness," John F. Halsey, University of Kansas, Kansas City, KS.
- "Dynamics of Lymphocyte Transfer to the Newborn," Leonard L. Seelig, Jr., University of Texas Health Science Center, Dallas, TX.
- "Intestinal Macromolecular Transport and Neonatal Liver," John N. Udall, Jr., Harvard University, Boston, MA.

- "Perinatal Infections, Immunity, and Maldevelopment," Charles A. Alford, Jr., University of Alabama in Birmingham, Birmingham, AL.
- "Antibody Secretion, Cytotoxicity and Immune Reaction," Steve Kohl, University of Texas Health Science Center, Houston, TX.
- "Epidemiology of Infant Botulism," James Chin, California State Department of Health Services, Berkeley, CA.
- "Nutritional Risk Factors and Penalty of Meningitis," Bettylou Sherry, Children's Orthopedic Hospital and Medical Center, Seattle, WA.

Human Milk Banks

- "Optimization of Human Milk Heat Treatment," Ronald R. Eitenmiller, University of Georgia, Athens, GA.
- "Human Milk Bank," William C. Heird, Columbia University, New York, NY.
- "Human Milk Banking Studies," Richard A. Ehrenkranz, Yale University, New Haven, CT.
- "Human Milk Banking Studies," Margaret C. Neville, University of Colorado Health Sciences Center, Denver, CO.

APPENDIX C

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

Physiology of Lactation

- "Effect of Maternal Dietary Lipid on Prostaglandin Content of Human Milk and Infant Plasma," M.C. Craig-Schmidt, Auburn University, Auburn, AL.
- "Failure to Thrive at the Breast," C.A. Johnson, Baylor College of Medicine, Houston, TX.
- "Control of Sodium in Breast Milk," B.S. Keenan, Baylor College of Medicine, Houston, TX.

Maternal Nutrition Aspects

- "Social Factors Influencing Rapid, Radical Dietary Change in American Adults," L.E. Grivetti, Agricultural Experiment Station, University of California, Davis, CA.
- "Human Calcium Requirements and Metabolism During Lactation," J.L. Kirkland, Baylor College of Medicine, Houston, TX.
- "Nutrient Levels and Metabolism in Pregnancy," A. Kirksey, Agricultural Experiment Station, Purdue University, West Lafayette, IN.
- "The Effect of Dietary Zinc Supplementation on the Zinc Status of Lactating Women," P.B. Moser, Agricultural Experiment Station, University of Maryland, College Park, MD.
- "Nutritional Requirements for Women During Pregnancy and Lactation," B.L. Nichols, Baylor College of Medicine, Houston, TX.
- "Early Developmental Effects of Marginal Vitamin B-6 Nutrition," R.D. Reynolds, Beltsville Human Nutrition Research Center, Agricultural Research Service, Beltsville, MD.

Infant Physiology

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

Infant Nutrition Aspects

- "Metal Absorption by Infants," P. Johnson, Grand Forks Human Nutrition Research Center, Agricultural Research Service, Grand Forks, ND.

*Source: Federal Human Nutrition Research and Information Management System, 1984.

- "Factors Influencing the Nutrient Intake and Growth of Breast-Fed Infants," A. Kirksey, Agricultural Experiment Station, Purdue University, West Lafayette, IN.
- "Factors Influencing Folate Status During Infancy," M.F. Picciano, Agricultural Experiment Station, University of Illinois, Urbana, IL.

Composition of Human Milk

- "Lipids in Breast Milk and Their Digestion," R.M. Clark, Agricultural Experiment Station, University of Connecticut, Storrs, CT.
- "Dietary Fat and Prostaglandin Content of Human Milk," M.C. Craig-Schmidt, Agricultural Experiment Station, Auburn University, Auburn, AL.
- "Micronutrients and Protective Agents in Human Milk," R.R. Eitenmiller, Agricultural Experiment Station, University of Georgia, Athens, GA.
- "Trace Elements in Human and Other Milks in Relation to Neonatal Nutrition," L.S. Hurley, Agricultural Experiment Station, University of California, Davis, CA.
- "Trace Elements in Human Milk," C.W. Weber, Agricultural Experiment Station, University of Arizona, Tucson, AZ.
- "Human Milk and Colostrum Components: Effects of Storage and Processing," R. Greenberg, Eastern Regional Research Center, Wyndmoor, PA.

Dietary Practices

- "Dietary Practices and Nutritional Status of Maternal and Infant Populations," L. Vaughan, Agricultural Experiment Station, University of Nebraska, Lincoln, NE.

Infant Feeding Behavior

- "Applying Social Learning and Diffusion Theories to the Study of Infant-Feeding Behavior," L.S. Sims, Agricultural Experiment Station, Pennsylvania State University, University Park, PA.

EVALUATION QUESTIONNAIRE

Dear Reader:

Please take a few minutes to answer some questions about this new publication. Your response will help us evaluate recent efforts to disseminate information and stimulate activities to promote breastfeeding. Once you have completed the questionnaire please fold it, seal with tape, and mail. No postage is necessary. Thank you for your assistance.

Are you a Physician _____ Nurse _____ Nutritionist _____
Other (specify) _____

Do you work in a public health agency _____ private practice _____ voluntary
organizational _____ Other (specify) _____

In which state do you work? _____

From whom did you receive this publication? _____

Were you aware that a Surgeon General's Workshop on Breastfeeding and Human
Lactation has been held? Yes _____ No _____

Do you have a copy of the *Report of the Surgeon General's Workshop on
Breastfeeding and Human Lactation*? Yes _____ No _____

If so, did it stimulate you to initiate any breastfeeding activities?
Yes _____ No _____

If so, what kind of activities? _____

Did you have an opportunity to submit information to be included in this Followup
Report? Yes _____ No _____ If so, through whom? _____

Did you submit information for this report? Yes _____ No _____

If so, is the information you submitted included in this report? Yes _____ No _____

We are interested in any comments you may have about the relevance and
usefulness of this Followup Report.

How are you most likely to read this publication? (Check one)

_____ cover-to-cover

_____ sections of interest only

_____ introduction only

_____ not likely to read

Please list resources and references on breastfeeding which you have developed or
found particularly useful. Send us a copy, if possible.

Thank you!