Promoting Breast Feeding: A National Perspective

JOYCE O. ARANGO, MPH, RD

This paper was prepared while Ms. Arango was a Nutrition Education Specialist with the Nutrition and Technical Services Division, Food and Nutrition Service, U.S. Department of Agriculture, in Alexandria, Va. She is currently in the doctoral program at the University of California School of Public Health, Berkeley.

Tearsheet requests to Nutrition Science and Education Branch, Nutrition and Technical Services Division, Food and Nutrition Services, U.S. Department of Agriculture, 3101 Park Center Dr., Rm. 609, Alexandria, Va. 22302.

Synopsis

The promotion of breast feeding is 1 of 17 nutrition objectives set out in the Public Health Service's Objectives for the Nation. Trends in breast feeding for the last 30 years are reviewed. While the proportion of mothers breast feeding in the overall American population has been steadily increasing, there is still much to be accomplished in order to meet the 1990 national breast feeding objective. Low-income women still lag behind middleand upper-income women in starting and maintaining breast feeding.

Several sources of barriers to breast feeding exist: society, the health care profession, and the family. In addition, economic and cultural barriers further inhibit breast feeding efforts of low-income women.

Efforts to promote breast feeding have been initiated at national, State, and local levels, as well as in the private sector. A summary of key initiatives at all levels is given.

Future directions for breast feeding promotion include (a) increasing educational efforts directed to pregnant women and their families, (b) changing the routines and practices in hospitals, (c) improving and increasing the support systems available to breast feeding women, (d) providing education to all health professionals in maternal and infant health care, (e) increasing the scope of efforts and media used to educate the general public, (f) increasing the acceptance by employers of the need for workplace accommodation for breast feeding women, and (g) continuing research efforts.

One way to address the challenges ahead is to link up with other community organizations and agencies. The Healthy Mothers, Healthy Babies Coalition is one vehicle for this purpose.

The Department of Health and Human Services, in "Promoting Health/Preventing Disease. Objectives for the Nation" (1), proposed a 1990 national breast feeding objective: to increase the proportion of mothers who breast feed their infants at hospital discharge to 75 percent and at 6 months of age to 35 percent. To meet this objective, health professionals must identify and seek ways to overcome the barriers to breast feeding that currently exist in all sectors of our society and within our health care delivery systems.

Background

The health and psychological benefits of breast feeding for both mother and infant are widely recognized and have been extensively documented in the scientific and popular literature (2). These benefits include the ideal nutritional composition of breast milk, immunological properties, psychological benefits, ease and convenience, possibly better control of caloric intake by the infant, more rapid uterine involution, possibly lower cost of the infant's food, and more rapid postpartum weight loss due to the use of stored fat as an energy source during lactation.

As a result of the extensive research and documentation of the benefits of breast feeding in recent years, support and reaffirmation of its importance have come from many national and international organizations. Those that have always supported it include the World Health Organization, International Pediatrics Association, American Medical Association, American Academy of Pediatrics, American College of Obstetricians and Gynecologists, American Dietetic Association, American Nurses Association, and American Public Health Association. Recent policy statements by the Surgeon General of the Public Health Service and the U.S. Department of Agriculture have also reaffirmed the importance of breast feeding.

Trends in Breast Feeding

Two major trends have occurred in breast feeding patterns in the United States and other industrialized countries in the last 50 years. The first was a dramatic decline in breast feeding during the 1930s and 1940s, lasting until the early 1970s (3). This decline reached its low point in 1972 when only 22 percent of newborn infants in hospitals were breast fed (4). Breast feeding

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rates then began a steady and dramatic increase, reaching 55 percent at hospital discharge in 1980. The most recent data show further increases up to 61.9 percent in 1982, then a slight decrease to 61.4 percent in 1983 (5). The period of breast feeding for infants up to 6 months of age has similarly followed a steady increase in length from 1972 up to 1982, again with a slight decline in 1983.

Although findings show a marked increase in breast feeding for the U.S. population as a whole, data on breast feeding among low-income women participating in the Special Supplemental Food Program for Women, Infants, and Children (WIC) in 1980 show that only 40.0 percent of infants were breast fed at birth (6). This percentage is larger than in previous years, but it is clear that these low-income mothers still lag considerably behind upper-income mothers in initiating breast feeding.

Trends in breast feeding among various racial and ethnic groups are also revealing. Before 1950 black women were more likely to breast feed than were white women (7). Between 1950 and 1973, this rate fell sharply to the point where black women were only one-third as likely to breast feed. This rate began to rise slightly from 1973 to 1975 (8) and, unfortunately, data are not yet available to indicate whether this trend has continued (4).

Breast feeding for women of Hispanic origin nation-wide showed a steady decline from 1950 up to 1973. Before 1950, 73 percent of Hispanic women breast fed their infants. By the period 1971–73, this number had declined to 19 percent (7). More recent data indicate that this trend may have been reversed. In 1981, 46.8 percent of Hispanic infants were breast fed at birth, rising to 54.1 percent in 1983 (5). However, this trend may not have occurred among Hispanics of Mexican origin. Breast feeding data for Hispanics of Mexican origin living on the U.S.-Mexico border show a steady decline from 25.7 percent in 1971 to 21.1 percent in 1979 (9).

Although few published data exist for trends in breast feeding among American Indian mothers, it appears that breast feeding declined during the 1960s and early 1970s, but that this trend is now reversing. Data collected by the Indian Health Service's Nutrition and Dietetics Section indicate that the overall incidence of breast feeding by Indian women at hospital discharge was 75 percent in 1982. However, a sharp decline to 20 or 25 percent occurred by 6 months postpartum.

The resurgence in breast feeding during the last 10 years is evidence that the majority of mothers now view breast feeding as the optimal way to nourish their newborn infants. It appears as well that many mothers who have made the decision to breast feed have managed to find sources of support and to overcome barriers confronting them. Education and support by health providers have also significantly encouraged breast feeding in all socioeconomic groups (10,11).

Based on the available data regarding breast feeding trends, one might conclude that the 1990 objective for the nation could be met with little additional intervention on the part of those in the health care system. An average increase of 2 percent each year from 1981 to 1990 would produce the desired objective of 75 percent of infants breast feeding at hospital discharge and 35 percent at 6 months of age. This 2-percent average increase per year has occurred for the last 3 years (5).

However, there are reasons to believe that this consistent increase may not continue, particularly for the lower socioeconomic groups, without a demonstrable effort on the part of health care providers and society at large. The reasons lie in the barriers to successful breast feeding that persist in the United States today and the significant effort that will be required to overcome them.

Barriers to Successful Breast Feeding

Research identifying the major barriers to successful breast feeding has been substantial. Lawrence (12), Worthington-Roberts and Taylor (13), and others (14) have extensively surveyed the literature and have identified the following major barriers:

Society. Society's barriers to breast feeding spring mainly from attitudes toward women's roles, sexuality, mothering, and the importance of children. Society often places a greater value on a woman's independence as a wife or career woman than on the traditional role of mother and homemaker. This attitude encompasses the expectation that women should return to a prepregnant state as soon as possible, in terms of both sexual functions and resumption of household and career duties. This lack of accommodation for a long-term change in status may inhibit women who might otherwise prolong breast feeding beyond the first several weeks or after returning to the workplace. Society extols the virtues of the mother-child relationship but also tells the mother to

avoid having the child develop too great a dependence on her alone. This dictum, in turn, contradicts the nature of the breast feeding relationship, which is an extremely close one between mother and infant. Another societal barrier to breast feeding is a negative attitude toward public exposure of breasts for the purpose of breast feeding. The paradox is that it allows such exposure for other expressions of sexuality. This attitude may contribute to the concern expressed by many women that breast feeding will "tie them down" too much and limit their activities to the home.

Health care profession. The health care profession built up many barriers to breast feeding during the period when bottle feeding was promoted in its stead. Attitudes and experiences of many health care providers continue to be nonsupportive of or ambivalent to breast feeding. Information available to mothers in health clinics has frequently been of little use to them in learning techniques of breast feeding or in solving common problems. Training curricula have rarely taught health professionals what they need to know to offer practical guidance and support to breast feeding mothers. Finally, hospital routines and practices have often served to inhibit successful breast feeding and discourage even highly motivated mothers. Among these practices are the separation of mother and infant during the first 24 hours, heavy use of anesthesia during labor and delivery, scheduled infant feedings and routine use of supplementary formula, and the mother's lack of access to her infant. Routinely giving infant formula to breast feeding mothers at discharge and a lack of followup after leaving the hospital may have also contributed to breast feeding failure.

Family. The family's barrier to breast feeding is primarily the lack of support for the mother's efforts. The role of the father, grandmother, and extended family cannot be overemphasized. Their encouragement and willingness to assume a portion of the household responsibilities can be the critical factor in successful breast feeding. A negative attitude by the father toward the sexual aspects of breast feeding or his feeling of being "left out" is a strong deterrent to continued breast feeding. Similarly, a grandmother's encouragement or subtle criticism can greatly influence the mother's confidence in her ability to breast feed her infant. This is especially true when problems occur.

Economic and cultural barriers. While low-income and minority women may face many of the barriers to breast feeding previously mentioned, they are also subject to others. One is a possible lack of information or misinformation due to the language or cultural differences from staff in the health care setting (15). An-

other is a possible lack of support for breast feeding from family and community, because it is associated with traditional (and "outdated") practices (16). In this context breast feeding may seem backward and not Americanized. (This attitude is particularly prevalent among Mexican-American women.) A third barrier may be the need to return to work soon after delivery, with little of the knowledge or support needed to make the transition to part-time breast feeding. Another problem for low-income women may be late initiation of prenatal care, thereby limiting their opportunities for prenatal breast feeding education and preparation. Adolescent or unwed mothers also face special problems due to their unique emotional, financial, and developmental concerns, often coupled with nonsupportive societal attitudes.

Recent and Current Promotion Efforts

There have been longstanding efforts to promote breast feeding at national, State, and local levels, as well as in the private sector. The Department of Health and Human Services (DHHS) and the Department of Agriculture (USDA) have both issued national policy statements supporting breast feeding, and this has resulted in a greater emphasis on breast feeding in the activities of all related agencies in both Federal departments (17,18). Both departments have also coordinated their activities through a joint nutrition education committee on maternal and child nutrition publications.

Federal initiatives. The Public Health Service (PHS) has given particular emphasis to breast feeding promotion in its health care policy and in training health professionals, especially those in the Title V Maternal and Child Health block grant Program and the Indian Health Service (19). Title V MCH funds are used to support both short- and long-term training programs and continuing education for a wide range of practitioners who deliver health care to mothers and children. The Service's Division of Maternal and Child Health, Health Resources and Services Administration, has initiated and funded many activities in support of breast feeding. These have included publications for expectant and new mothers, research grants, bibliographies, guidance materials for health professionals, and co-sponsorship of a symposium on human lactation with subsequent publication of the proceedings (20). It has also funded and coordinated the recent Surgeon General's Workshop on Breastfeeding and Human Lactation, and its published report (21). Additionally, the Public Health Service recently completed a special task force report on the assessment of the scientific evidence relating to infant feeding practices and infant health.

Several other DHHS agencies have conducted research on the properties of human milk and the physiology of lactation, trends in breast feeding, and drugs and other substances in breast milk. These agencies include the National Institutes of Health, National Center for Health Statistics, Centers for Disease Control, and the Food and Drug Administration.

Efforts to promote breast feeding in USDA have centered around the supplemental food programs administered by the Food and Nutrition Service (FNS) and the Commodity Supplemental Food Program (CSFP). The USDA Extension Service, particularly the Expanded Food and Nutrition Education Program (EFNEP), has also conducted various breast feeding initiatives at Federal, State, and local levels.

The Federal requirements for WIC and CSFP include a number of provisions that are designed to encourage breast feeding by women participating in either program (18):

- Nutrition education sessions in both WIC and CSFP must include information on the benefits of breast feeding.
- In both WIC and CSFP, breast feeding women are always considered to be at a higher level of "nutritional risk" than are nonbreast feeding, postpartum women. Health professionals use a nutritional risk priority system to determine a person's position on the waiting list when a local agency has reached maximum caseload.
- In WIC, breast feeding women may receive benefits for up to 1 year, while nonbreast feeding women are eligible for only 6 months postpartum.

USDA has developed several publications to help local level staff promote and teach WIC and CSFP participants about breast feeding. The Department also makes available an extensive stock of breast feeding education materials on loan to program personnel through its Food and Nutrition Information Center. In 1979, it funded three grants to conduct projects on breast feeding education. Results from these projects have been useful in identifying barriers to breast feeding and in developing or improving breast feeding education programs in local WIC and CSFP agencies.

Most recently, DHHS and USDA have combined their breast feeding efforts. One of the first of the joint USDA-DHHS efforts was a 3-hour video-teleconference on breast feeding and prenatal substance abuse. It was seen on April 7, 1983, by approximately 10,000 health professionals nationwide. The two Departments also joined forces with the other members of the Healthy Mothers, Healthy Babies Coalition. Healthy Mothers, Healthy Babies is a partnership of more than 60 governmental, professional, and voluntary organizations and

agencies designed to increase the awareness of pregnant women about the importance of good health for themselves and their unborn babies (22). This combination of effort has resulted in a national breast feeding promotion campaign. Current components of the campaign are a resource package of breast feeding materials for health professionals and the Surgeon General's Workshop on Breast Feeding and Human Lactation held in June 1984.

State and local initiatives. Initiatives of State and local health agencies have long been at the forefront in promoting breast feeding and are continuing in this role. These initiatives have three major areas of emphasis (23): (a) improving knowledge about human lactation among health professionals and others who may influence a mother's decisions about infant feeding; (b) improving the ability and skills of health professionals to advocate, counsel, and support women on successful lactation during pregnancy and after delivery; and (c) increasing understanding among pregnant women of the importance of breast feeding to infant and maternal health.

Reports of successful initiatives to promote breast feeding are beginning to appear in the professional literature. Hundreds more have not been reported and thus are unavailable for reference. The following examples represent promotion initiatives that have been conducted in a variety of settings across the country:

States. Statewide campaigns have been conducted in Wisconsin (24) and in Rhode Island (23).

Communities. Community-wide or rural campaigns have been conducted in New York City (23); St. Albans, Vt. (25); and Lexington, Ky. (10).

Hospitals and clinics. Hospital- or clinic-based campaigns have been conducted at the Louisiana State University Medical Center, New Orleans (23); Baylor College of Medicine, Houston (26); Martha Elliot Health Center, Jamaica Plain, Mass. (27); Papago Indian Reservation, Sells, Ariz. (10); George Washington University Hospital, Washington, D.C. (28); Latina Mother Infant Program, Chicago (10); Kaiser-Permanente Medical Center, Oakland, Calif. (29); and Roosevelt Hospital, New York City (10).

Private sector initiatives. The private sector has become increasingly involved in breast feeding promotion activities. There are two categories of activities: those done voluntarily and not for profit and those done for profit.

La Leche League International, Inc., leads all other groups in the volunteer category. La Leche League leaders are present in most communities in the United States and provide information and support to thousands of new mothers and families every year. Many other locally or regionally based volunteer support organizations also exist across the country and serve families in their locale.

The private sector that develops and markets breast feeding materials and services for profit has grown dramatically in recent years. It has produced a wide range of products for sale, including breast feeding aids and devices, books, pamphlets, posters, films, and other audiovisual materials for use by both health professionals and the general public. A wide range of services is also available, including seminars and courses on breast feeding promotion, lactation counseling, and support for new mothers. In addition, the companies that produce and market infant formula have been active in developing materials and services for breast feeding promotion.

Future Directions

While much has been done so far, and many activities are underway, the emphasis for the future must be to eliminate or minimize existing barriers to successful breast feeding. Only by so doing can we hope to bring back breast feeding as the universal mode of infant feeding. To accomplish this, we must focus our efforts in these areas:

1. Increase the education of pregnant women and their families concerning breast feeding in a manner that is easily understood and culturally relevant.

This means we must continue to promote actively and give practical information to those women and their families who are undecided about or in favor of breast feeding. (Those who have definitely decided to bottle feed should not be made to feel guilty about their decision.) Particularly for low-income and minority women, we need to provide information in language that they easily understand, that is simple and to the point, and that addresses their major concerns in a culturally sensitive manner. For those women who reject breast feeding because they believe it is backward, emphasis can be placed on showing that it is up-to-date and scientifically approved (16).

2. Change the routines and practices in hospitals, so that breast feeding mothers are properly instructed and supported in their efforts.

Since the hospital delivery period is critical in the successful establishment of breast feeding, hospital personnel should change those routines that interfere with early and frequent feeding or that may erode the new mother's self-confidence in breast feeding (for example, routine distribution of infant formula packs at hospital dis-

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charge). In addition, rooming-in and instruction of new mothers in breast feeding techniques should be the norm, coupled with encouragement and positive attitudes. If possible, telephone followup several days after hospital discharge should be part of the support system.

3. Improve the support systems available to breast feeding women in the early postpartum period to provide encouragement and help solve common problems.

The presence of a support system can be critical to breast feeding success. Support from family members, relatives, friends, and other breast feeding mothers is one essential component. Another is support from health professionals throughout the early postpartum period. There are many ways to develop and implement support systems, including telephone followup and home visits to new mothers, scheduling the first well-child examination at 7 to 10 days of age, and facilitating mother-to-mother support. These and other kinds of support should be available to all newly breast feeding mothers.

4. Inform all health professionals in maternal and infant health care about the practical aspects of establishing and managing breast feeding.

Many health professionals have inadequate knowledge and experience in the practical skills required for establishing and maintaining lactation. Increased training in these areas needs to be a part of both initial and continuing education for professionals in all relevant health disciplines. Since physicians are often considered the most credible source of health information for low-income women (16), particular emphasis should be given to instructing them. Development of appropriate breast feeding curricula for various health disciplines could be one part of this effort.

5. Increase the scope of efforts and media used to educate the general public on the benefits of breast feeding with emphasis on the integration of breast feeding into all aspects of daily life.

Overcoming the many sociocultural barriers to breast feeding can best be accomplished by a broad-based public education effort that would reach and influence people through multiple channels. The primary channels are mass media, especially television; schools, particularly high school family life education courses; churches; and relevant community programs. Information on breast feeding can easily be incorporated into related topics and portrayed as a natural and accepted aspect of motherhood and family life.

6. Increase the acceptance by employers of the need for workplace accommodation for breast feeding women, and teach breast feeding women the necessary skills to make a successful transition from full-time to part-time breast feeding.

Many women view the return to work as the time to terminate breast feeding. Support for continued breast feeding is often missing in the workplace, and the adjustment to part-time breast feeding may not be easy. Yet with some advice and employer support, the return to work need not be a barrier. Such accommodations as fewer hours of work per week, longer maternity leaves, nursing breaks in each shift, and day care centers at or near the workplace can help women to continue breast feeding. Benefits to employers, such as less absenteeism and improved work performance, can be emphasized as well. Health professionals and lay support groups can help teach the skills of part-time breast feeding (for example, expressing and storing milk, maintaining the milk supply, and so forth).

7. Continue research efforts and, in particular, identify effective strategies to promote breast feeding.

Continued research is needed if we are to fill the gaps in our current knowledge about breast feeding and its effective promotion. Some remaining unanswered questions were proposed by Winikoff (30) for future studies:

- How should infant feeding regimens be described to facilitate analysis of data?
- What should be the intervals of followup?
- What are the best control groups?
- Are there differences between morbidity and mortality effects of different infant feeding programs in light of relative protective properties of breast feeding?
- How can intrinsic biases, such as characteristics of the mothers, health status of the infants, and health care behavior of the mother, be dealt with?
- How can conclusions be fairly stated, given the methodological flaws and difficulties in conducting studies of breast feeding and infant health?

Getting Organized for the Tasks Ahead

Many of the challenges just outlined may appear too large and difficult for health workers to tackle under the everyday constraints of the professional workplace. However, the promotion of breast feeding does not stand alone as a single issue or task to be accomplished. Rather, it fits into a broader framework of maternal and infant health issues and therefore can be linked to other efforts to teach pregnant women and new mothers about the value of health and preventive practices for themselves and their children.

One such effort can be the formation of a State or local Healthy Mothers, Healthy Babies Coalition, based on the national model. The national coalition is an informal association with shared goals, but with no dues or formal membership requirements. Each member group has a long-term commitment to improving maternal and child health, and each subscribes to the coalition's purpose of improving the quality and reach of public education concerning prenatal and infant care.

Why form a local Healthy Mothers, Healthy Babies Coalition? There are many reasons (31). "The most obvious reason is an old cliche—strength in numbers. But there are other reasons:

- to share information and resources
- to present a united voice
- to strengthen the efforts of the organizations involved
- to unify policy and action on a specific issue
- to be more successful in providing information to the public,
- to rally broad community support for an issue
- to reduce the sense of isolation,
- to develop a network within a community,
- to share the burden of a complex problem,
- to form an advisory body, and
- to provide a community service that no single group could handle alone."

The national Healthy Mothers, Healthy Babies Coalition has several resources to help people working to promote breast feeding, especially those working with low-income and minority women. These resources include market research, information cards for expectant mothers, a professional resource packet on breast feeding, and a networking handbook for community planning and organizing.

By working together and making full use of available resources in the professional, voluntary, and government sectors, we may begin to realize our national objective for the promotion of breast feeding.

References

 Public Health Service: Promoting health/preventing disease.
 Objectives for the nation. U.S. Government Printing Office, Washington, D.C., fall 1980.

- American Academy of Pediatrics: Breastfeeding: a commentary in celebration of the international year of the child, 1979. Pediatrics 62: 591-601 (1978).
- Winikoff, B., and Baer, E.C.: The obstetrician's opportunity: translating "breast is best" from theory to practice.
 Am J Obstet Gyn 138: 105-117, September 1980.
- Eckhardt, K.W., and Hendershot, G.E.: Analysis of the reversal in breast feeding trends in the early 1970s. Public Health Rep 99: 410-415, July-August 1984.
- Martinez, G.A.: Ross Laboratories' national mothers' survey. Reports for 1981, 1982, 1983. Marketing Research Department, Ross Laboratories, Columbus, Ohio.
- Martinez, G.A., and Stahle, D.A.: The recent trend in milk feeding among WIC infants. Am J Public Health 72: 68-71, January 1982.
- Hirschman, C., and Hendershot, G.: Trends in breastfeeding among American mothers. Vital Health Stat [23] No. 3. DHEW Publication No. (PHS) 79–1979, Hyattsville, Md., 1979.
- Hendershot, G.: Trends in breastfeeding. National Center for Health Statistics, Vital and Health Statistics. Advance Data No. 59, Public Health Service, 1980.
- Smith, J.C., et al.: Trends in the incidence of breastfeeding for Hispanics of Mexican origin and Anglos on the U.S.-Mexico border. Am J Public Health 72: 59-61, January 1982.
- Lewis, L.: Successful breast-feeding programs for lowincome, minority mothers. Ross Timesaver, Public Health Currents 22: 1-4, January-February 1982.
- Hall, J.M.: Influencing breastfeeding success. J Ob Gyn Neonat Nurs 7: 28–32, November-December 1978.
- Lawrence, R.A.: Breast-feeding: A guide for the medical profession. C.V. Mosby Company, St. Louis, 1980, pp. 97-99
- Worthington-Roberts, B.S., and Taylor, L.E.: Guidance for lactating mothers. *In Nutrition in pregnancy and lactation*, Ed. 2, C.V. Mosby Company, St. Louis, 1981, pp. 198-200.
- La Leche League International, Inc.: Determinants influencing maternal choices regarding infant feeding: Why women in the United States don't breastfeed. Franklin Park, Ill., 1982.
- Perez, S.D., Raschke, L., and Ramirez, E.G.: Breastfeeding knowledge, attitudes and practices among lower socioeconomic women. Paper presented at 109th annual meeting, American Public Health Association, Los Angeles, Calif., Nov. 1-4, 1981.
- Wittenberg, C.K.: Summary of market research for "healthy mothers, healthy babies" campaign. Public Health Rep 98: 356-359, July-August 1983.
- Public Health Service: Healthy people. The Surgeon General's report on health promotion and disease prevention.
 DHEW (PHS) Publication No. 79-55071. U.S. Government Printing Office, Washington, D.C., 1979.
- Efforts to promote breastfeeding in the supplemental food programs. Food and Nutrition Service, U.S. Department of Agriculture, Washington, D.C. FNS-236 (1983).
- 19. Testimony of the Director, Office for Maternal and Child Health, Bureau of Community Health Services, Public Health Service, before the Committee on Agriculture, U.S. House of Representatives, June 22, 1981.
- Symposium on human lactation. DHEW Publication No. (HSA) 79-5107, U.S. Government Printing Office, Washington, D.C., 1979.
- 21. Public Health Service, Health Resources and Services Ad-

- ministration: Report of the Surgeon General's workshop on breastfeeding and human lactation. DHHS Publication No. (HRS-D-MC) 84-2. U.S. Government Printing Office, Washington, D.C., 1984.
- Bratic, E.B.: Healthy mothers, healthy babies coalition—a joint private-public initiative. Public Health Rep 97: 503-509. November-December 1982.
- Healthy Mothers, Healthy Babies Coalition: Promotion of breast-feeding: a guide to action. Professional resource packet on breast-feeding. American Academy of Pediatrics, Evanston, Ill., 1983.
- Braune, J.: A statewide breastfeeding campaign. Community Nutritionist 2: 11-13 (1983).
- Thompson, E.B., and Rieley, P.B.: Toward increasing breast-feeding: WIC as the coordinating agency. Ross Timesaver, WIC Currents 7: 9-12, May-June 1982.
- Johnson, C.A., Garza, C., and Nichols, B.: A teaching intervention to improve breastfeeding success. Nutrition Education 16: 19-22 (1984).
- Perton, L.: Breastfeeding in the inner city. Community Nutritionist 1: 18,27, March-April 1982.
- Brackin, M., and Thompson, J.: Implementing breastfeeding in a maternity unit. *In Symposium on human lactation*.
 DHEW Publication No. (HSA) 79-5107, pp. 117-126.
 U.S. Government Printing Office, Washington, D.C., 1979
- Samuels, S.F.: Socio-cultural obstacles to breastfeeding in an American community. Paper presented at annual meeting, Society for Nutrition Education, San Diego, Calif., Aug. 10-13, 1981.
- Winikoff, B.: Issues in the design of breastfeeding research.
 Stud Fam Plan 12: 177-184, April 1981.
- Healthy Mothers, Healthy Babies National Coalition: Healthy mothers, healthy babies: the community connection. American College of Obstetricians and Gynecologists, Washington, D.C., 1984.