

# Position of the American Dietetic Association: Breaking the barriers to breastfeeding

## Abstract

It is the position of the American Dietetic Association (ADA) that broad-based efforts are needed to break the barriers to breastfeeding initiation and duration. Exclusive breastfeeding for 6 months and breastfeeding with complementary foods for at least 12 months is the ideal feeding pattern for infants. Increases in initiation and duration are needed to realize the health, nutritional, immunological, psychological, economical, and environmental benefits of breastfeeding. Breastfeeding initiation rates have increased, but cultural barriers to breastfeeding, especially against breastfeeding for 6 months and longer, still exist. Gaps in rates of breastfeeding based on age, race, and socioeconomic status remain. Children benefit from the biologically unique properties of human milk including protection from illness with resulting economic benefits. Mother's benefits include reduced rates of premenopausal breast and ovarian cancers. Appropriate lactation management is a critical component of successful breastfeeding for healthy women. Lactation support and management is even more important in women and children with special needs caused by physical or developmental disability, disease, or limited resources. Dietetics professionals have a responsibility to support breastfeeding through appropriate education and training, advocacy, and legislative action; through collaboration with other professional groups; and through research to eliminate the barriers to breastfeeding.

## POSITION STATEMENT

*It is the position of the American Dietetic Association (ADA) that broad-based efforts are needed to break the barriers to breastfeeding initiation and duration. Exclusive breastfeeding for 6 months and breastfeeding with complementary foods for at least 12 months is the ideal feeding pattern for infants. Increases in initiation and duration are needed to realize the health, nutritional, immunological, psychological, economical, and environmental benefits of breastfeeding.*

## BREASTFEEDING TRENDS IN THE UNITED STATES

National efforts to promote breastfeeding have been successful at increasing rates of breastfeeding initiation. Nonetheless, fewer than one third of infants are being breastfed beyond 6 months of age, and many potential benefits are being forfeited. The next challenge to ADA and other professional organizations is to communicate the importance of exclusive breastfeeding for 6 months and breastfeeding with complementary foods for at least 12 months.

Since the first edition in 1979 of *Healthy People*, in which the US Surgeon General's Report stated that breastfeeding is to be encouraged (1) and the follow-up editions in which specific goals for initiation and duration rates have been identified (2,3), the United States has seen a resurgence in breastfeeding rates. Breastfeeding initiation rates increased from a low of about 20% in the early 1970s to a high of 61.9%

in 1982 (4). After a decline in breastfeeding rates through 1990, breastfeeding initiation rates have increased yearly reaching 68.4% in 2000 (5). This trend in increasing initiation rates has been fostered by a stunning combination of scientific support of benefits (6-8) and by recognition from numerous professional societies, including ADA, of breastfeeding as the preferred form of infant nutrition (9-14). Federally supported breastfeeding promotion efforts also continued to expand in number and scope including the national USDA/WIC social marketing campaign for breastfeeding, breastfeeding rates in the Title V State Performance Measures, the introduction of the Maloney Bill in 1998, the National Breastfeeding Policy Conference, the formation of the United States Breastfeeding Committee (15-17), and the release of the HHS Blueprint for Action on Breastfeeding (18).

Breastfeeding initiation and duration rates continue to be highest among women who are white or non-Hispanic, college educated, older than 30 years, employed part-time, not in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and living in the Mountain or Pacific regions. While all demographic groups reported increases in breastfeeding initiation since 1990, the largest increases occurred among mothers who have historically been less likely to breastfeed—women who are black, less educated, employed full-time, less than 20 years old, living in the South Atlantic region, and participating in WIC. However, a significant gap still remains between the women most likely to breastfeed and those least likely to breastfeed. The *Healthy People 2010* goal of 75% for breastfeeding initiation appears to be within reach. However, considerable work remains to achieve the 50% goal for breastfeeding at 6 months and the new 25% goal for breastfeeding at 12 months (3). Only 31.4% of all infants are still being breastfed at 6 months of age (5). By 12 months of age, only 17.6% of all infants are breastfed (5). The greatest benefits of breastfeeding are associated with exclusive breastfeeding for at least 6 months and continued breastfeeding with complementary foods for at least 12 months (19-24). The current dramatic decline in breastfeeding rates after the first few months indicates a forfeiture of important health benefits. Therefore, encouragement, support and good clinical management is needed to sustain breastfeeding.

### **BARRIERS TO EXTENDED BREASTFEEDING**

Because so many people look to healthcare professionals for advice, it is critical for them to be knowledgeable about breastfeeding. Dietitians can be a resource for breastfeeding support in the hospital setting when they have adequate training in lactation management and support (25). However, many healthcare professionals have inadequate training about lactation. Several studies have reported that healthcare professionals are supportive of breastfeeding but may be inadequately trained to recognize problems and offer interventions that support breastfeeding (26-28). Traditional dietetics and other healthcare professional training programs have not incorporated extensive training in lactation support (29-31). The unfortunate consequence of inadequate training is inappropriate management of lactation and a clinical bias toward use of human milk substitutes when problems with breastfeeding arise (8,28).

Changes in the delivery of healthcare during the 1990s, including shorter postpartum hospital stays, further limit the professional support and education about lactation available to new mothers. The Baby Friendly Hospital initiative (32) has

notable potential to enhance successful initiation of breastfeeding, but limited implementation has been realized in US hospitals (33). Providing home visits during the newborn period can compensate for short hospital stays if personnel with particular training in assessment and management of lactation perform these visits. Unfortunately, once a mother-infant pair has experienced problems, it may be very difficult to reestablish adequate breastfeeding without lactation consultation, rental of an electric pump, or purchase of other equipment, all of which are frequently not reimbursed by third party payers. In the extreme, morbidity and excessive costs can result from belated identification and treatment of lactation problems (34).

Numerous sociocultural factors also contribute to relatively short-term breastfeeding. First, breastfeeding is not accepted as the cultural norm, particularly within some demographic groups. The impact of sociocultural attitudes on infant-feeding decisions has been thoroughly reviewed (35) and should be considered in efforts to promote breastfeeding. The decline in breastfeeding 20-30 years ago has resulted in a loss of traditional knowledge and support; today's grandmothers often have no firsthand breastfeeding experience. The number of teenaged and single mothers and many families' reliance on childcare outside the home are also associated with challenges to successful sustained breastfeeding. Other powerful forces mitigating against sustained breastfeeding are women's relatively short-term maternity leave (36), inflexible work hours when returning to work, and the lack of paid breastfeeding or pumping breaks in the workplace. These forces often make it difficult to maintain a good milk supply with prolonged separation from the infant (37). In view of findings that full-time maternal employment decreases breastfeeding duration (38), more supportive work environments are needed where mothers can either have the infant present, have access to on-site or nearby child care, or at least have time and facilities to pump and store milk. These provisions are generally more available to women in professional or semiprofessional jobs because they have more control over their employment conditions and greater flexibility in their work environments than other employed women (39).

Finally, a discussion of sociocultural factors cannot overlook the effect of the commercial sector on breastfeeding. Aggressive marketing practices (40) and the use of products associated with shorter duration of breastfeeding (41-43) promote the use of human milk substitutes. Prenatal exposure to human milk substitute advertising significantly increases early termination of breastfeeding in the first 2 weeks and shortens overall duration among women with uncertain breastfeeding goals or goals of 12 weeks or less (44). Marketing or providing these products in discharge packages promotes maternal-infant separation, undermines maternal confidence, and contributes to early mixed feedings that interfere and sometimes interrupt establishing an adequate milk supply (40,45).

Thus, a paradigm shift is needed to make meaningful progress toward substantially more and longer breastfeeding for infants in the United States. The new paradigm must include more than statements from agencies, institutions and individuals that breastfeeding is to be encouraged. Healthcare and sociocultural practices must expect and reflect that breastfeeding an infant for the first year and beyond is not only optimal but is the norm. The use of human milk substitutes should be reserved only for a minority of infants and with specific indications.

## RATIONALE: BENEFITS OF BREASTFEEDING

The advantages of extended breastfeeding include nutritional, immunological and psychological benefits to both infant and mother, as well as economic and environmental benefits. Breastfeeding education efforts and clinical management must highlight the importance of breastfeeding for a longer duration to receive the full range of benefits for both mother and infant.

### Psychological Benefits

That there are psychological benefits of breastfeeding for both the mother and the infant is generally assumed but has been particularly difficult to characterize and quantify. Studies relating to psychological benefits of breastfeeding have been criticized for methodological flaws such as evaluation tool limitations and a narrow focus on developmental outcomes that exclude the process underlying development (46). Acknowledging the challenges of such investigations, several reports have linked breastfeeding, and especially duration of breastfeeding, with cognitive and emotional psychological benefits. Mothers with early infant contact breastfed (47-48) and showed more attachment behavior than women without early contact (49) and infants who were not breastfed.

The unique composition of human milk, such as the fatty acid composition discussed later, plays an important role in neuropsychological development (50). Premature infants fed breast milk have faster brainstem maturation compared with infants fed human milk substitute (51). Low-birth-weight infants fed mother's milk scored better on developmental tests at 18 months and intelligence tests at age 7 or 8 years than infants who received human milk substitutes (52). Similarly, significant increases in cognitive development test scores were identified in school-aged children (23,53-54). A meta-analysis of 20 studies about breastfeeding and cognitive development reported that breastfeeding was associated with significantly higher scores for cognitive development than was human milk substitute feeding, and low-birth-weight infants showed larger differences than did normal-birth-weight infants (24). More importantly, these cognitive developmental benefits increased with the duration of breastfeeding (23-24).

### Nutritional Benefits

Human milk provides optimal nutrition to the infant, with its dynamic composition and the appropriate balance of nutrients provided in easily digestible and bioavailable forms (8,55). The relatively low protein content of breast milk is adequate, but not excessive, so that it presents a relatively modest nitrogen load to the immature kidney. The form of protein in human milk, mainly whey, forms a soft, easily digestible curd. Human milk provides generous amounts of essential fatty acids, saturated fatty acids, medium-chain triglycerides, and cholesterol. Long-chain polyunsaturated fatty acids, especially docosahexaenoic acid, promote optimal development of the central nervous system. Human milk has a relatively low sodium content, allowing the fluid requirements of the exclusively breastfed infant to be met while keeping the renal solute load low. Minerals in breast milk are largely protein bound and balanced to enhance bioavailability. The provision of zinc, iron and calcium in such available forms allows for adequate amounts to be provided to the infant with little waste and reduces the demand for these nutrients from the mother.

### Immunological Benefits

Human milk contains many components that contribute to its

protective properties (8,55). Cellular components, including specific T- and B-lymphocytes, and nonspecific macrophages and neutrophils, are especially high in colostrum but persist in milk in lower concentrations in activated forms for months. Humoral factors include immunoglobulins, with secretory immunoglobulin A being predominant in minimizing both the exposure to and entry through the gastrointestinal tract of foreign proteins. Infants with a strong family history of allergic disease benefit from this protection, particularly through extended breastfeeding. Other soluble factors include lactoferrin and vitamin B12-binding proteins that bind iron and vitamin B12, respectively, making them unavailable to pathogens that require these nutrients to prosper in the infant's gastrointestinal tract. Such factors are critical to maintaining a striking difference in the intestinal flora of breastfed vs human milk substitute-fed infants. Hormones and hormonelike substances, including insulin and epidermal growth factor, enhance maturation of the infant gastrointestinal tract. These and numerous other factors in human milk directly and indirectly provide critical active and passive protection to the infant, especially neonates, against viral and bacterial pathogens. Because of the delicate balance between nutritional and immunologic factors, maximal protection is offered by exclusive rather than partial breastfeeding.

### Infant and Child Morbidity

In studies performed in both developing and industrial countries, infants fed human milk substitutes have fivefold more gastrointestinal illnesses, threefold more respiratory illnesses, and double the episodes of otitis media (6,56-58). Given the challenges of studying effects of feeding method in countries with relatively low morbidity and mixed feeding patterns, it is remarkable that carefully designed and controlled studies have established increased morbidity among infants fed human milk substitutes even in industrial countries (19,56-60).

A dose-response relationship exists where the more breast milk an infant receives in the first six months of life, the less likely the infant is to develop health problems (19-22). Exclusive and sustained breastfeeding realizes the greatest improvements in infant health and extends for periods beyond weaning. For instance, the risk of otitis media is reduced for the duration of breastfeeding and for months after weaning (57) and the protection against atopic disease may extend for years (58,61).

Evidence continues to accumulate confirming the relationship between breastfeeding and other morbidities including reduced risk for childhood asthma (61,62), childhood leukemia (63), childhood obesity (64,65), and malocclusions or malalignment of teeth (66). An association also appears to exist between breastfeeding and Sudden Infant Death Syndrome (SIDS) with the research community currently debating whether breastfeeding has a primary effect in reducing risk or if it is a surrogate for one or more other important variables (67). These studies underscore the impact of early feeding on long-term health.

There is a reemergence of rickets among breastfed infants in the United States (68,69). Risk factors for nutritional rickets include exclusively breastfed infants, especially infants with highly pigmented skin where the melanin (or skin pigmentation) acts as a natural sunscreen and reduces the amount of vitamin D produced when exposed to sunlight. These reports of rickets have generated discussion and debate about universal vitamin D supplementation for breastfed infants. Such a

recommendation should address concerns about the potential health risks associated with excessive sun exposure and the uncertain impact of high potency sunscreens on vitamin D conversion. Universal supplementation contrasts with the current recommendation for maternal or infant vitamin D supplementation or adequate infant exposure to sunlight. For white infants, adequate exposure equals 30 minutes per week in only diapers or 2 hours per week clothed (70).

### Maternal Health Benefits

Health gains for breastfeeding women include lactation amenorrhea (71), maternal weight or fat loss, protection against premenopausal breast cancer (72) and ovarian cancer (73), bone remineralization to levels exceeding those present before lactation (74), and more optimal blood glucose profiles in women with gestational diabetes (7,75). Although the hormonal milieu of lactation favors fat mobilization from the lower body, the interrelationships of pre-pregnancy nutritional status, maternal dietary intake, physical activity, and duration and exclusivity of breastfeeding can mask the net effect of lactation (76-78).

Extending the duration of breastfeeding also increases maternal benefits of breastfeeding. For example, amenorrhea is increased by exclusive and more frequent nursing (especially at night) (71,76). Duration of breastfeeding is also related to a reduced risk of premenopausal breast cancer (72).

### Economic Benefits

Before the improvements in infant and child health associated with breastfeeding were accepted by the scientific and medical communities, a common perception was that true economic benefit of breastfeeding could only be realized in developing countries where breastfeeding improves household food security and saves the family's disposable income for foods for older children and adults. Cost projections for infants in the United States fed human milk substitutes and their increased incidence of three illnesses (respiratory tract infections, otitis media, and gastrointestinal illnesses) translate into millions of dollars per year (79). The Economic Research Service of USDA recently estimated a minimum savings of \$3.1 billion if breastfeeding rates increased from the 1998 rates to those recommended by the US Surgeon General (ERS/USDA, 2001)(80). This analysis likely underestimates the total savings because it represents cost savings from the treatment of only three childhood illnesses—otitis media, gastroenteritis, and necrotizing enterocolitis. Strong evidence about the potential public cost savings is provided by two studies of the WIC and Medicaid programs (81,82) where statistically significant savings were realized in lower cost of the food package for lactating women compared with the cost of human milk substitute (even after adjusting for the substantial manufacturers' rebate) and from lower Medicaid covered pharmacy costs and Medicaid covered medical costs during the first 12 months in breastfed compared to human milk substitute-fed infants. In addition to the savings in direct medical costs, data are emerging that document the economic benefits of breastfeeding support to employers, including lower maternal absenteeism due to infant illness, increased employee loyalty, improved productivity, and enhanced public image (83). There are few parallels for such underuse of a recognized cost-effective and socially beneficial health practice.

### Environmental Benefits

Breastfeeding contributes to the health of the environment in

numerous ways (84-86). Breast milk is a natural resource that is renewable with each pregnancy. Breastfeeding requires no packaging and protects natural resources such as fossil fuels because no advertising, shipping or disposal is needed. By delaying the return of menses (76), breastfeeding suppresses fertility and increases birth spacing, improving maternal and child health while limiting population growth. Breastfeeding is an ecologically sound practice that protects the environment and contributes to the well-being of mothers and infants.

## CLINICAL CONSIDERATIONS

### Lactation Management

Many postpartum lactation problems are iatrogenic and are thus responsive to changes in routine care of mothers and newborns, such as those outlined in the Baby Friendly Hospital initiative (32). Early mother-infant contact increases the duration of breastfeeding by as much as 50%, and nursing should be initiated immediately after delivery when possible. The early postpartum period is a critical time for education and assistance to ensure appropriate positioning and latch-on to avoid breast soreness and/or engorgement (87). Early follow-up visits at home or in a clinic setting are critical for breastfeeding continuation to address maternal concerns (88).

Primary lactation failure is rare. However, maternal perception of insufficient milk supply leads women to supplement with other liquids or foods. This supplementation interferes with establishment of an adequate milk supply, frequently leading to unplanned and premature weaning. Early recognition and intervention can help prevent lactation difficulties that lead to real or perceived insufficient milk supply (8,89). It is critical that healthcare professionals teach mothers to identify signs of adequate intake and to seek professional assistance before routinely supplementing breastfeeding. Healthcare professionals must recognize signs and symptoms of insufficient milk, such as infant lethargy and/or irritability, jaundice, infrequent defecating or urinating, and/or either failure to gain weight or excessive weight loss (7-10% of birth weight) and intervene when an infant's health is in jeopardy. Intervention should include a full assessment of lactation and a plan that preserves breastfeeding.

Monitoring and assessing infant growth is an important part of identifying potential lactation problems and providing appropriate intervention. The growth rates of breastfed infants are significantly different than the rates of infants fed human milk substitutes, particularly after 4 months when breastfed infants appear to gain weight slower than indicated on the 1977 NCHS growth charts (90).

The revised NCHS growth charts, newly released in 2000, use nationally representative reference data from recent US health examination surveys supplemented with birth data from two midwestern states (91). Although clinical experience assessing growth of breastfed infants with the revised charts is limited due to their recent release, the new reference data better represent the birth weights and growth patterns of infants in the general US population. The revised charts, in combination with increasing recognition that healthy children often shift percentiles for both length and weight in the first 24 months of life before settling into a growth curve, should lead to more accurate assessment of growth patterns for breastfed infants.

Interim growth charts specific to breastfed infants are available and may be helpful in assessing infant growth (92). A

Working Group of the World Health Organization commenced a four-year multicenter growth reference study to develop a new set of international growth charts based on the growth of exclusively or predominantly breastfed infants (93). The study should be completed in 2002 and will provide valuable insight into numerous issues about growth patterns of breastfed infants.

**Lactation in Women with Special Needs**

Medical advances have made pregnancy and positive fetal outcome possible for women with many chronic diseases including insulin dependent diabetes mellitus, systemic lupus erythematosus, and hypothyroidism. Increasingly, women with chronic disease wish to breastfeed their infant, but few data exist to provide guidance (94). Guidelines are available regarding the advisability of breastfeeding in women with infectious diseases and other maternal conditions (8,95) (see the Figure below).

The key to successful breastfeeding in women with special needs is appropriate choice of medications and/or treatments and lactation support from the early prenatal to postpartum period. Resources are available to assist in evaluating the safety of drug use in lactation (8,101-103). The few classes of drugs that contraindicate breastfeeding during use include radioactive isotopes, chemotherapeutic drugs, lithium, ergotamine, lactation suppressing drugs, and recreational drugs. Contamination of breast milk with environmental pollutants is a concern when mothers have had specific exposure to heavy metals or insecticides. In situations where maternal exposure

and probability of transfer in breast milk lipids are determined to be significant, analysis of milk is recommended with decisions regarding safety made from estimated average intake (55).

The transmission of human immunodeficiency virus (HIV) through breastfeeding has been well documented. In the United States, the Centers for Disease Control and Prevention (CDC) advise women with HIV infection not to breastfeed (18,96). This US position is different than the joint recommendation issued by three international organizations (The World Health Organization, the United Nations Children's Fund, and the Joint United Nations Programme on HIV/AIDS) in 1998 stating that HIV-infected women should avoid or limit breastfeeding their infants (97). Recent studies in this area appear to indicate that not all women have the same risk of transmitting HIV to their breastfed infants. A number of factors have been identified that may increase the risk of transmission, including early mixed feedings, short duration of breastfeeding, nipple lesions, mastitis, and infant oral thrush (98-100). Additional investigation is needed to clearly define the risks attributable to breastfeeding and the timing of transmission through breastfeeding.

**Infants with Special Needs**

The advantages of breastfeeding and the use of human milk are particularly salient for infants with special needs. One of the most common and yet challenging situations is that of infants born prematurely. The unique nutritional qualities of human milk, including the protein/amino acid and lipid composition, offer advantages with respect to digestibility and feeding tolerance, maturation of the gastrointestinal tract, and neurologic development. The relatively high requirements for certain nutrients, including protein, calcium, phosphorus, and zinc are generally not met for infants weighing less than 2,000 g unless the human milk is fortified. Human milk feeding has been found to reduce the incidence of infection and sepsis/meningitis in human milk-fed, very low birthweight infants compared with exclusively human milk substitute-fed, very low birthweight infants (104) and reduce the incidence of necrotizing enterocolitis (105). Discussion of the controversy of fortification of mother's own milk and use of donor milk is beyond the scope of this position, but remains an issue of considerable interest (106).

Human milk has also been successfully used for infants with cleft palate; inborn errors of metabolism, especially phenylketonuria; cystic fibrosis (with pancreatic enzyme replacement); and Down syndrome (94). In each of these situations, the major challenge remains the achievement and maintenance of an adequate milk supply. Healthcare providers should provide anticipatory support and be alert to early signs or symptoms of feeding difficulties so effective early intervention can be initiated.

**ROLES AND RESPONSIBILITIES OF DIETETICS PROFESSIONALS**

All healthcare professionals have a responsibility to promote and support breastfeeding by providing accurate information and appropriate, timely lactation management. ADA, the International Lactation Consultant Association, La Leche League International, Nursing Mothers' Counsel, and breastfeeding task forces at local, regional and state levels are avenues for professional and volunteer efforts to promote and support breastfeeding.

Condition	Recommended*	Contraindicated
Insulin dependent diabetes mellitus	X	
Gestational diabetes	X	
Multiple sclerosis	X	
Systemic lupus erythematosus	X	
Hypothyroidism	X	
Hepatitis C without coinfection	X	
Hypertension	X	
Crohn's disease and ulcerative colitis	X	
Hyperprolactinemia and associated conditions	X	
Phenylketonuria	X	
Cystic fibrosis	X	
Hyperlipoproteinemia	X	
Galactosemia	X	
Kidney transplant	X	
Raynaud's phenomenon	X	
Benign breast cysts	X	
Fibrocystic disease	X	
Breast cancer detected during pregnancy		X
Human immunodeficiency virus (HIV)		X

\*Breastfeeding is possible with appropriate medication, treatment and support

Table adapted from Lawrence RA, Lawrence RM. *Breastfeeding: A Guide for the Medical Profession*. Mosby, Inc., St. Louis, MO; 1999.

FIG.: Maternal conditions and breastfeeding recommendation

Prenatal lactation education or consulting are viable practice options for dietetics professionals. Dietetics professionals in prenatal clinics, obstetrics practices, and WIC clinics must have the training and the responsibility to educate women about breastfeeding by providing practical information, addressing myths and misinformation and identifying support systems as early in pregnancy as possible. Client education materials and service delivery sites must be carefully evaluated for product bias and changes made as needed so that breastfeeding is clearly communicated as the optimal infant feeding method.

Furthermore, critical review of undergraduate and graduate training programs in dietetics is recommended. Curriculums that are appropriate for various levels of expertise and application are available (107) and may be useful in developing standards of education to strengthen the dietetics professionals' understanding of lactation management.

Participation in continuing education programs is critical for dietetics professionals to keep up to date with the science of lactation and to enhance lactation management skills. Some intensive programs offer an optional certification test and grant successful participants a title indicating completion of that specific course. Increasing numbers of dietitians with extensive practical experience are seeking the credential, IBCLC (International Board Certified Lactation Consultant) (108). This voluntary credentialing program, administered by the International Board of Lactation Consultant Examiners (IBLCE), sets the standards for the lactation consultant profession around the world and is fully accredited by the National Commission for Certifying Agencies. The IBLCE examination assesses competence in a range of disciplines related to lactation including anatomy, physiology, endocrinology, immunology, pathology, toxicology, psychology, sociology, growth and development, public health, and ethical and legal issues in practice. With advanced training or successful attainment of the IBCLC credential, dietitians can be educators of physicians, other healthcare professionals and key care providers, particularly in pediatric and family practice settings, and provide skilled technical management to breastfeeding families.

Dietetics professionals also play a role in research on issues such as cost-effectiveness, nutrient needs, and maternal and infant nutrition outcomes related to breastfeeding, especially for women and infants with special needs. Research is needed first to understand and then to eliminate barriers to successful breastfeeding, with careful attention to specific cultural influences. Dietitians can advocate for consistent breastfeeding definitions in research design to improve the understanding of the benefits of exclusive breastfeeding and call for nonproprietary population data about breastfeeding practices.

ADA members are needed to support cultural changes that will eliminate barriers to lactation. In over half of the states, legislation has been enacted to address breastfeeding in public, on the job, and on jury duty (109). This support of breastfeeding contributes significantly to the ease of continuing breastfeeding. Further efforts are needed for policy change in the workplace, including longer family leave; facilities for child care and breastfeeding at the worksite or nearby in the community; paid nursing breaks; flexible employment arrangements; breastfeeding support personnel/lactation consultation; and third party reimbursement for lactation consultation and management services.

It is critical that the professional, volunteer, education, and research efforts of dietetics professionals be aimed at breaking

the barriers to initiation and continuation of breastfeeding. Dietetics professionals should be involved in developing institutional and organizational policies to reduce or eliminate clinical bias. Clinical bias in favor of human milk substitutes must be recognized where it exists and appropriate lactation support and management techniques should be incorporated into clinical protocols. Dietetics professionals must present the breastfed infant as the standard against which infants fed human milk substitutes are compared. Sociocultural structures and practices that foster successful sustained breastfeeding should be recognized and actively supported.

Breastfeeding promotion activities should continue to support initiation but broadly based additional efforts are clearly needed to increase duration rates of breastfeeding. The establishment of breastfeeding for at least 6 months, but optimally for at least a year, as a cultural norm supported by medical, social, and economic practices is a fundamental cornerstone of true promotion of wellness.

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