



WIC'S PROMOTION AND SUPPORT OF BREASTFEEDING

MAKING BREASTFEEDING ACCESSIBLE AND EQUITABLE FOR THE WIC POPULATION

NWA'S MISSION

The National WIC Association (NWA) provides its members with tools and leadership to expand and sustain effective nutrition services for mothers and young children.



WIC: IMPROVING HEALTH OUTCOMES FOR 46 YEARS

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is a national, targeted supplemental public-health nutrition program with time-limited participation. Every month, the program serves roughly 7.3 million low-income mothers, babies, and young children at nutritional risk across the United States. For more than 46 years, WIC has contributed to healthier pregnancies and improved birth outcomes for low-income mothers, babies, and young children up to age five.

BREASTFEEDING SUPPORT IN WIC: BACKGROUND

Launched as a two-year pilot program in 1972, WIC has since grown exponentially. In its early years, breastfeeding promotion efforts were initiated at the local level. In the mid-1980s, the Food and Nutrition Service (FNS) of the United States Department of Agriculture (USDA) launched a three-year project to study the range of breastfeeding promotion and support efforts nationwide. The results were published in its 1988 *Promoting breastfeeding in WIC: a compendium of practical approaches*, which presented case studies of creative and successful practice models in selected sites across the country. The following year, the US Congress mandated that 8 million dollars be used specifically to support

breastfeeding. In 1992, WIC food package VII was created to encourage breastfeeding for fully breastfeeding women. It included fish and increased amounts of other foods, thereby representing the most substantive change made to the food package between 1975 and the 2007 issuance of the interim rule. In 1997, the Secretary of Agriculture officially launched the Loving Support© campaign¹ during the celebration of World Breastfeeding Week; and in 2004, FNS launched the Loving Support© Peer Counseling Program, an initiative that brought the importance of breastmilk for human babies to the forefront in WIC. While the funding level for peer counseling activities has since increased substantially, a funding decrease was observed in 2010, and the amount of money provided has since continued to depend on an annual appropriation from Congress.



In 2009, FNS incentivized exclusive breastfeeding by creating a more robust food package for breastfeeding mothers who receive no supplemental formula for their infants. FNS set standards for states, limiting the amount of formula issued for breastfeeding infants during the first 30 days to avoid undermining mothers' breastfeeding efforts during the initiation period. In addition, WIC staff must complete an assessment when breastfeeding mothers request formula. If appropriate, only the minimal amount of formula needed to support continued breastfeeding is issued. In 2011, FNS released *Grow and Glow in WIC*, a standardized competency-based curriculum under the Loving Support© Makes Breastfeeding Work model. This curriculum was developed to ensure that all WIC staff, not just those designated as breastfeeding counselors, become proficient in promoting and supporting breastfeeding in the WIC setting. Through these efforts, FNS recognized the importance of establishing collaborative breastfeeding support within WIC local agencies.

BREASTFEEDING SUCCESSES

The WIC community has achieved numerous successes as a result of the staff's breastfeeding promotion and support efforts. Over the past two decades, breastfeeding initiation rates have increased dramatically. In 1998, only 42 percent of WIC mothers initiated breastfeeding; and by 2016, the WIC breastfeeding initiation rate had increased to 71 percent.² An FNS-commissioned analysis conducted between 1998 and 2013 reported breastfeeding duration rates among WIC mothers had also increased, with the WIC breastfeeding rate at one-month postpartum rising by 85 percent, while the rate for 3- to 12-month-old infants more than doubled during the same time period.³



COURTESY OF CALIFORNIA WIC ASSOCIATION

This demonstrates that comprehensive breastfeeding support provided by WIC staff has the capacity to improve breastfeeding rates among women participating in the program.

THE NATIONAL WIC ASSOCIATION'S POSITION ON BREASTFEEDING PROMOTION AND SUPPORT IN WIC

This position paper affirms NWA's support of the WIC program's ongoing commitment to promote and support breastfeeding. It highlights the numerous health, economic, and social benefits of breastfeeding for women, infants, and children, and describes WIC's substantial efforts and opportunities to support breastfeeding among the families WIC serves. The WIC population encompasses low-income women who are less likely to breastfeed as well as their infants and children.^{4,5} This paper presents NWA's position and describes breastfeeding on the national and health-equity landscapes. It also highlights opportunities where the vision of breastfeeding support in WIC can be expanded.

IT IS NWA'S POSITION THAT:

1. WIC addresses issues of health equity and disparity through its promotion and support of breastfeeding.
2. WIC helps participants overcome barriers to breastfeeding by providing the necessary breastfeeding support.
3. WIC underscores the benefits of breastfeeding through nutrition education that encourages participants to choose breastfeeding.
4. Mechanisms for breastfeeding support in WIC are built into the infrastructure of the program through federal regulation, breastfeeding support efforts and programs, breastfeeding credentialing, and the WIC food package.
5. WIC serves as a key partner with other national and local organizations in the promotion, support, and protection of breastfeeding among its population.

1. WIC ADDRESSES ISSUES OF HEALTH EQUITY AND DISPARITY THROUGH ITS PROMOTION AND SUPPORT OF BREASTFEEDING.

THE NATIONAL LANDSCAPE

Despite efforts made to promote and support breastfeeding throughout the United States, gaps remain that hinder the establishment of a consistent, nationwide breastfeeding support network. For example, breastfeeding demographics show that the WIC population is highly vulnerable to societal barriers that might not otherwise pose significant obstacles to higher-income populations, such as limited financial resources, social resources, and access to lactation support professionals.^{6,7} Although the 2016 Centers for Disease Control and Prevention (CDC) Breastfeeding Report Card shows that breastfeeding initiation rates are progressing and within reach of the Healthy People 2020 goal, breastfeeding duration rates among infants who are 6 and 12 months of age indicate that many mothers do not continue breastfeeding as recommended.⁸

BREASTFEEDING AND HEALTH EQUITY IN WIC

Progress has been made on the national landscape regarding breastfeeding initiation. Still, the CDC Breastfeeding Report Card reveals disparities across specific regions of the United States. While Utah leads the nation with a breastfeeding initiation rate of 94.4 percent, Mississippi's initiation rate is 52.0 percent.⁹ Research has repeatedly demonstrated that women of low-income and low education levels, and African American women regardless of education level or socioeconomic status, have the lowest breastfeeding rates within the United States.^{10,11,12}

Although there are obvious inequities regarding breastfeeding rates nationwide and within specific communities, WIC's Breastfeeding Peer Counseling Program (BFPC), effectively utilizes peer counselors to support mothers in their breastfeeding journey. Peer counselors come from the WIC population and ideally represent similar racial/ethnic and cultural norms of the mothers with whom they work.¹³

The WIC community continues to find innovative ways to overcome health disparities, especially involving breastfeeding. One way in which NWA works to increase health equity and narrow the gap in nutritional and health status between low-income moms and children and their higher-income counterparts was through the Community Partnerships for Healthy Mothers and Children (CPHMC) Project. Between 2014 and 2017, NWA worked with 30 local WIC agencies on this CDC-funded project to improve access to healthy food and beverage options (including breastmilk) at the local level through policy, systems, and environment (PSE) change interventions. Through this project, WIC agencies were able to stretch beyond traditional WIC breastfeeding services that use BFPCs, lactation consultants, support groups, classes, educational materials, and hotlines in order to improve breastfeeding environments and overcome structural barriers to breastfeeding that make it hard for WIC moms to continue to breastfeed. Effective interventions included providing breastfeeding trainings to physicians and other community providers, establishing nursing stations in community spaces, sending breastfeeding peer counselors (BFPCs) into maternity wards, integrating WIC breastfeeding support into educational opportunities for pediatricians and OB-GYNs, and introducing lactation support policies for local governments.

2. WIC HELPS PARTICIPANTS OVERCOME BARRIERS TO BREASTFEEDING BY PROVIDING THE NECESSARY BREASTFEEDING SUPPORT.

BARRIERS TO BREASTFEEDING AMONG THE WIC POPULATION

Within the United States, breastfeeding is affected by a complex set of factors, including societal influence and expectations, availability of and access to community resources, access to maternal and newborn healthcare, and health provider influence and support. Systemic roadblocks deter breastfeeding success, particularly for low-income, WIC-eligible families. Women who give birth in facilities that practice evidence-based maternity care are more likely to have greater rates of breastfeeding initiation, duration, and exclusivity.^{14,15} A breastfeeding study showed that implementation of such care, including the World Health Organization (WHO)/UNICEF's Ten Steps to Successful Breastfeeding, is less likely to take place in hospitals serving low-income women. This is often due to the associated costs of achieving accreditation, staff training, and the purchase of formula by these hospitals.¹⁶ Postpartum support, including support from the workplace and childcare providers, is another critical component in helping to ensure breastfeeding success. Despite the existence of federal and state laws protecting a mother's right to express milk during break times at work, women in low-wage jobs often report feeling disempowered in requesting that their employers provide them with appropriate accommodations.¹⁷ Furthermore, research has also shown that low-income women and infants experience health disparities that lead to poor health outcomes over

their entire lifespans.¹⁸ To compound this, an analysis of data from the US Department of Labor shows that 23 percent, nearly 1 in 4 women, return to work within two weeks of giving birth.¹⁹ When an infant is ill and the mother cannot go to work, the economic hardship for these families is often unsurmountable. These obstacles could be avoided in a society that supports breastfeeding-friendly policies, such as paid maternity leave.

Improved health outcomes in half of the nation's babies WIC serves would reduce stress on the public safety net, to which we all contribute, thereby fostering a healthier society. Therefore, NWA supports legislation and public policies that protect and serve the needs of breastfeeding mothers, both in public spaces and in the workplace. NWA supports and encourages breastfeeding-friendly environments because it is through our nation's shifting cultural norms and protections that positive change can be achieved. WIC's widespread influence and commitment to breastfeeding support uniquely positions the program to help address these issues due to its BFPC program, its capacity to build community partnerships, and its role as a nutrition program that safeguards the health of its participants.



3. WIC UNDERSCORES THE BENEFITS OF BREASTFEEDING THROUGH NUTRITION EDUCATION THAT ENCOURAGES PARTICIPANTS TO CHOOSE BREASTFEEDING.

BENEFITS OF BREASTFEEDING

WIC's mission is to safeguard the health of low-income women, infants, and children up to age 5 who are at nutrition risk by providing nutritious foods to supplement their diets, information on healthy eating and breastfeeding, and referrals to health care.²⁰ Promoting and supporting breastfeeding are central to the program's mission. In fact, FNS recommends that WIC mothers breastfeed their infants unless medically contraindicated.²¹ Similarly, NWA prioritizes the promotion and support of breastfeeding as a public health imperative for the WIC program.

HEALTH BENEFITS OF BREASTFEEDING

Public health and medical experts have long identified the important role breastfeeding has on short- and long-term health for mother and baby.²² Additionally, the body of research documenting the increased risk factors associated with formula feeding and the early introduction of solid foods continues to grow. As outlined in the 2011 Surgeon General's Call to Action to Support Breastfeeding, infants who are not breastfed are at an increased risk for infections and illnesses, such as diarrhea, ear infections, and pneumonia, especially during the first year of life.²³ Breastfeeding is considered a protective factor against sudden infant death syndrome (SIDS).^{24,25} In fact, one study showed that when compared to formula-fed infants, those who were breastfed at any time had a 45 percent reduction

in SIDS risk. For infants who were breastfed for longer than two months, there was a 62 percent reduction, while exclusively breastfed infants of any duration had a 73 percent reduction. The benefits of breastfeeding extend well beyond infancy: Breastfed children have a lower risk of asthma, childhood cancers, and childhood obesity.²⁶ In addition to the irreproducible benefits for infants and children, breastfeeding helps to improve the health outcomes of mothers by decreasing their lifetime incidence of certain diseases such as breast and ovarian cancers.²⁷

ECONOMIC BENEFITS OF BREASTFEEDING

Breastfeeding not only improves health outcomes for mothers and children, but it also offers economic benefits as well. It has been estimated that families who exclusively breastfeed for the infants' first six months of life save up to \$1,500 in infant formula expenditures in the first year alone.²⁸ Additionally, if 90 percent of US families breastfed exclusively for six months, the US would save an estimated \$13 billion annually in healthcare costs, preventing an excess of 911 deaths each year.²⁹ In 2014 alone, the costs of suboptimal breastfeeding was \$3 billion for total medical costs, \$1.3 billion for non-medical costs, and \$14.2 billion for premature death costs. Considered together, these findings suggest that investment in strategies to enable more women to breastfeed optimally would result in significant healthcare cost savings. In addition, increased investment in public health programs and social policies that enable more women to breastfeed optimally may be cost-effective.³⁰

ENVIRONMENTAL BENEFITS OF BREASTFEEDING

Also of critical importance is the fact that breastfeeding is the environmentally friendly way to feed an infant, with no expenditure of energy needed other than additional calories in the mother's diet. Unlike the manufacturing of infant formula, breastfeeding does not waste scarce

resources, take up landfill space, or create pollution. Breastfeeding is a naturally renewable resource that does not require packaging, shipping, or delivery.

Based on these distinctive health, economic, and environmental benefits, NWA regards breastfeeding as a top priority within the WIC program. Additionally, it aligns with and endorses the American Academy of Pediatrics' and other health organizations' recommendations for exclusive breastfeeding during the first six months with continued breastfeeding as complementary foods are introduced for as long as mutually desired by the mother-infant dyad.

4. MECHANISMS FOR BREASTFEEDING SUPPORT IN WIC ARE BUILT INTO THE INFRASTRUCTURE OF THE PROGRAM THROUGH FEDERAL REGULATION, BREASTFEEDING-SUPPORT EFFORTS AND PROGRAMS, BREASTFEEDING CREDENTIALING, AND THE WIC FOOD PACKAGE.

FEDERAL REGULATIONS

Federal regulations specify the minimum number and periodicity of contacts with pregnant and breastfeeding participants. The frequency and regularity of contacts throughout the prenatal and postpartum periods of program participation creates a trusting relationship between WIC staff and expectant and new mothers. This schedule of regular visits provides many opportunities for staff to share

time-sensitive and individualized breastfeeding education and support. Additional federal regulations that support breastfeeding include requirements for state agencies to staff a designated breastfeeding promotion coordinator and to incorporate methods for providing breastfeeding promotion and support to participants in the state plan.³¹

LOVING SUPPORT® PEER COUNSELING PROGRAM

WIC promotes and supports breastfeeding through the Loving Support® Peer Counseling Program. Adopted by FNS in 2004 and based on formative research, the Loving Support® Peer Counseling Curriculum sought to understand the barriers to implementing and the motivators for sustaining peer-counseling programs. Most recently updated in 2016, this curriculum provides breastfeeding training and education for all WIC staff regardless of job duties while establishing BFPCs as dedicated staff offering WIC participants mother-to-mother breastfeeding support. The curriculum established a standard level of "competency and essential skill sets in basic breastfeeding technique and management for all WIC local agency staff," and integrated into FNS' Breastfeeding Policy and Guidance 2016 is the expectation is that all WIC staff "encourage, educate, and support women in their breastfeeding decisions."³²

WIC BFPCs, by definition, are non-professionals with substantial personal breastfeeding experience who receive special training to provide practical and emotional support and referrals. Within this model, BFPCs establish a relationship with WIC participants early in the prenatal period that continues throughout the postpartum period. Contact is regular and becomes more frequent prior to and following delivery. The Loving Support® Model offers BFPC availability outside usual WIC clinic hours, thereby providing timely support to WIC breastfeeding moms. As a result, local agencies administering

peer-counseling programs are able to provide breastfeeding support to high-need populations compared to what is normally possible through core WIC services.

USDA's 2015 WIC Breastfeeding Policy Inventory documents that 93 percent of state WIC programs are operating some type of peer counselor program. Appropriations have grown from \$20 million to \$60 million annually,³⁴ and the program now operates—to a limited extent—in nearly all states, the District of Columbia, and 34 Indian Tribal programs.³⁵ Due to limited funding, peer-counseling services are not universally available at all WIC clinics. Therefore, NWA plays a pivotal role in advocating for full funding of the peer-counseling program as a means to help ensure that the highest level of breastfeeding support is provided to WIC participants.

BREAST PUMPS

As part of the WIC program's commitment to support breastfeeding in a variety of circumstances, breast pumps are made available to WIC mothers who meet state and local agency criteria. This is particularly critical in situations when pumps are not available through private insurance or Medicaid, or during the interim post-delivery period until pumps are issued. This includes the loan of closed-system, hospital-grade pumps for medical need and single-user pumps for mothers returning to work or school.

According to USDA's 2015 Breastfeeding Policy Inventory Report, breast pumps were the most common breastfeeding aid made available to participants in 98 percent of direct-service state agencies and 99 percent of local agencies. Staff follow-up with women issued a breast pump was common: Respondents from 77 percent of direct-service state agencies and 88 percent of local agencies reported that clinic staff followed-up with participants who were issued a pump.³⁶ This data further underscores WIC staff's

dedication in helping mothers to breastfeed.

INTERNATIONAL BOARD CERTIFIED LACTATION CONSULTANTS (IBCLCS)

With the implementation of BFPC programs and increased focus on breastfeeding support, WIC identifies mothers in need of advanced lactation support. As clinical breastfeeding professionals, IBCLCs are best suited to help mothers address and resolve their complex breastfeeding problems. IBCLC inclusion in WIC is particularly important, since many of the mothers who require advanced lactation support have at-risk infants, including preterm and low birth weight babies. Just as WIC employs Registered Dietitians (RDs) to support participants with complex nutritional needs, many WIC programs employ IBCLCs to support women with complex breastfeeding needs.

LACTATION EDUCATORS AND COUNSELORS, BREASTFEEDING COORDINATORS, AND OTHER WIC STAFF

While the Loving Support® Peer Counseling Program and IBCLCs play a pivotal role in supporting and providing vital assistance to WIC breastfeeding moms, lactation educators, lactation counselors and breastfeeding coordinators also provide WIC participants with needed support to ensure seamless breastfeeding promotion and education for all breastfeeding participants. All WIC staff, however, are encouraged to support WIC moms in their breastfeeding journey. Additionally, WIC clerks, frontline staff, and CPAs are important for setting the tone of the office and creating an atmosphere that is breastfeeding-friendly.

THE WIC FOOD PACKAGE

As previously mentioned, FNS created food package VII to encourage breastfeeding in 1992. Intended for fully breastfeeding women, the food package included carrots, fish, and increased amounts of other foods.³⁷ Additionally, breastfeeding women

are able to remain enrolled in the WIC program longer than non-breastfeeding postpartum women.

Most recently, the National Academies of Sciences, Engineering, and Medicine (NASEM) released its final report on its review and recommendation of the WIC food package. Among the criteria for inclusion of foods in the WIC food package, the packages contribute to an overall diet that is consistent with established dietary recommendations for infants and children younger than 2 years of age, including encouragement of and support for breastfeeding.³⁸ The NASEM report recommends an increase in the dollar amount for the CVV from \$11 for women to \$25 for partially breastfeeding women and \$35 for fully breastfeeding women, thereby providing additional support for breastfeeding women.³⁹ NASEM also encourages individual tailoring of the infant food packages to best meet the needs of the mother-infant dyad as a means of supporting breastfeeding of any duration. Furthermore, the Academy recommends enhancement of the fully breastfeeding food package and the creation of a new, partial breastfeeding food package to further incentivize breastfeeding.⁴⁰

5. WIC SERVES AS A KEY PARTNER WITH OTHER NATIONAL AND LOCAL ORGANIZATIONS IN THE PROMOTION, SUPPORT, AND PROTECTION OF BREASTFEEDING AMONG ITS POPULATION.

Although many WIC agencies currently engage in partnerships with community organizations, forging new and strengthening existing partnerships will be key for

expanding breastfeeding support in the WIC program. From onsite trainings for both WIC and hospital staff to collaborations between WIC state agencies and state hospital associations, building alliances with the greater healthcare community creates a continuum of care for breastfeeding mothers and their infants. Coordination and synergy among the local WIC agency, hospitals, physicians, other healthcare providers, and home visitor programs promote the shared goals of NWA, FNS, the US Surgeon General, and numerous other medical organizations, such as the American Academy of Pediatrics and the American Academy of Family Physicians. NWA fully endorses the Surgeon General's recommendation that hospitals establish and implement policies and procedures to ensure WIC participants have breastfeeding support services, such as access to lactation support professionals and other clinicians, in place before hospital discharge.⁴¹ Additionally, the WIC program should explore opportunities to assist hospitals in achieving the Baby-Friendly designation.

NWA supports local WIC staff in stepping outside their agencies and engaging the greater public in sharing information and best practices to support exclusive and continued breastfeeding. Examples include visiting farmers markets, participating in community fairs, and reaching out to day-care centers that provide services to working WIC moms to promote breastfeeding. Some local WIC agencies publicly recognize employers that support their breastfeeding employees participating in WIC. Building these partnerships creates a referral network of community partners for seamless breastfeeding support and assistance.

CONCLUSION: LOOKING FORWARD AND EXPANDING THE VISION OF BREASTFEEDING IN WIC

Moving forward, NWA recommends action in six priority areas in order for the WIC program to achieve its goal of broad and consistent breastfeeding support for all mothers and babies:

- » Provide evidence-based breastfeeding education and lactation services at *all* WIC sites. This includes programming framed with a cultural and racial equity lens to focus on closing the gap in breastfeeding disparities.^{42,43,44,45,46,47,48}
- » Ensure staff have the appropriate competencies for their roles in promoting breastfeeding and supporting mothers and families.
- » Expand the BFPC program to ensure all mothers have access to augmented breastfeeding support at every WIC site during and outside normal business hours.^{49,50,51,52}
- » Increase access to IBCLCs within WIC or facilitated by WIC for mothers with complex breastfeeding problems and concerns.⁵³
- » Coordinate with community partners, healthcare providers, and employers to ensure continuity of care and consistent messaging.^{54,55,56}
- » Support the Baby-Friendly Hospital Initiative by maintaining improved communication between WIC local agencies and the delivering hospitals that serve WIC participants, providing targeted prenatal education to prepare mothers for successful initiation of breastfeeding within the hospital, and coordinating postpartum support after discharge.^{57,58,59,60}

WIC has a long, rich history of breastfeeding promotion and support with effective program oversight that ensures mothers and infants receive the highest level of support possible. WIC is uniquely poised as a collaborative partner within the community. Local WIC agencies are the hubs of breastfeeding support for families during the prenatal, perinatal, and postpartum periods. Additional funding and support at the federal level will serve to strengthen breastfeeding promotion practices both within WIC and the community at large, bridging the gap for underserved families that have historically lacked access to lactation support and would most benefit from such.

With support from NWA, the implementation of the Loving Support[®] Peer Counseling Program, and the adoption of other breastfeeding promotion strategies, WIC has evolved into the nation's premier breastfeeding program. NWA encourages state and local agencies to branch out and build meaningful partnerships with outside organizations to ensure that WIC continually adapts to the needs of WIC participants while helping to mold a society that stands with WIC in support of breastfeeding.



WIC: EMPOWERING FAMILIES, STRENGTHENING COMMUNITIES

Please direct all questions to Darlena Birch, Senior Public Health Nutritionist, at 202.719.2607 or dbirch@nwica.org.

¹ Bartholomew A, Adedze P, Soto V, Funanich C, Newman T, MacNeil P (2017). Historical Perspective of the WIC Program and Its Breastfeeding Promotion and Support Efforts. *Journal of Nutrition Education and Behavior*. Vol 49 Issue 7, pp. S139 – S143. Available online: [https://www.jneb.org/article/S1499-4046\(17\)30199-9/fulltext](https://www.jneb.org/article/S1499-4046(17)30199-9/fulltext).

² United States Department of Agriculture, Food and Nutrition Service Office of Policy Support (2018). WIC Participant and Program Characteristics 2016 Final Report. Available online: <https://fns-prod.azureedge.net/sites/default/files/ops/WICPC2016.pdf>.

³ National WIC Association (2017). The Power of Peer Counselors: A WIC Success Story. Accessed online: <https://s3.amazonaws.com/aws.upl/nwica.org/2017-wic-bfpc.pdf>.

⁴ United States Department of Agriculture, Food Nutrition Service (2018) About WIC. Available online: <https://www.fns.usda.gov/wic/about-wic>.

⁵ Centers for Disease Control and Prevention, National Center for Health Statistics (2008) Breastfeeding in the United States: Findings from the National Health and Nutrition Examination Survey, 1999 – 2006. Available online: <https://www.cdc.gov/nchs/data/databriefs/db05.htm>.

⁶ Milligan RC, Pugh LC, Bronner YL, Spatz DL, Brown LP (2000). Breastfeeding duration among low income women. *Journal of Midwifery & Women's Health*: Vol 45 Issue 3, pp. 246–252.

⁷ Persad MD, Mensinger JL (2008) Maternal breastfeeding attitudes: association with breastfeeding intent and socio-demographics among urban primiparas. *Journal of Community Health*: Vol 33 Issue 2, pp. 53–60.

⁸ Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity and Obesity (2016). Breastfeeding Report Card. Available online: <https://www.cdc.gov/breastfeeding/pdf/2016breastfeedingreportcard.pdf>.

⁹ Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity and Obesity (2016). Breastfeeding Report Card. Available online: <https://www.cdc.gov/breastfeeding/pdf/2016breastfeedingreportcard.pdf>.

¹⁰ Milligan RC, Pugh LC, Bronner YL, Spatz DL, Brown LP (2000). Breastfeeding duration among low income women. *Journal of Midwifery & Women's Health*: Vol 45 Issue 3, pp. 246–252.

¹¹ Persad MD, Mensinger JL (2008). Maternal breastfeeding attitudes: association with breastfeeding intent and socio-demographics among urban primiparas. *Journal of Community Health*: Vol 33 Issue 2, pp. 53–60.

- ¹² Alexander A, Dowling D, Furman, L (2010). What do pregnant low-income women say about breastfeeding? *Breastfeeding Medicine*: Vol 5 Issue 1, pp. 17–23.
- ¹³ United States Department of Agriculture, Food Nutrition Services, Loving Support® Model for a Successful Peer Counseling Program Adequate Program Support from State and Local Management. Available online: https://wicworks.fns.usda.gov/wicworks/Learning_Center/FNS_model.pdf.
- ¹⁴ Centers for Disease Control. The CDC Guide to Breastfeeding Interventions. Available online: https://www.cdc.gov/breastfeeding/pdf/BF_guide_1.pdf.
- ¹⁵ Labbok MH, Taylor EC, Nickel NC (2013). Implementing the ten steps to successful breastfeeding in multiple hospitals serving low-wealth patients in the US: innovative research design and baseline findings. *International Breastfeeding Journal*: Vol 8 Issue 5.
- ¹⁶ Semenic S, Childerhose JE, Lauzière J, Groleau D (2012). Barriers, facilitators, and recommendations related to implementing the Baby-Friendly Initiative (BFI). An integrative review. *Journal of Human Lactation*: Vol 28 Issue 3, pp. 317–334. Available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3669017/>.
- ¹⁷ Rojjanasrirat W, Sousa, VD (2010). Perceptions of breastfeeding and planned return to work or school among low-income pregnant women in the USA. *Journal of Clinical Nursing*: Vol 19 Issue 13–14, pp. 2014–2022.
- ¹⁸ Bravemen PA, Cubbin C, Egerter S, Williams DR, Pamuk E (2010). Socioeconomic Disparities in Health in the United States: What the Patterns Tell Us. *American Journal of Public Health*. Vol 100 Suppl 1, pp. 186–196. Available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2837459/>.
- ¹⁹ Lerner S (2015) The Real War on Families: Why the U.S. Needs Paid Leave Now. Available online: <http://inthesetimes.com/article/18151/the-real-war-on-families>
- ²⁰ United States Department of Agriculture, Food Nutrition Service (2018) About WIC – WIC’s Mission. Available online: <https://www.fns.usda.gov/wic/about-wic-wics-mission>
- ²¹ United States Department of Agriculture, Food Nutrition Service (2018). Women, Infants and Children (WIC) Breastfeeding is a Priority in the WIC Program. Available online: <https://www.fns.usda.gov/wic/breastfeeding-priority-wic-program>.
- ²² Binns C, Lee M, Low WY (2016). The Long-Term Public Health Benefits of Breastfeeding. *Asia Pacific Journal of Public Health*: Vol 28 Issue 1, pp 7–14.
- ²³ United States Department of Health and Human Services (2011). The Surgeon General’s Call to Action to Support Breastfeeding. Available online: <https://www.surgeongeneral.gov/library/calls/breastfeeding/calltoactiontosupportbreastfeeding.pdf>.
- ²⁴ Thompson JMD, Tanabe K, Moon RY, Mitchell EA, McGarvey C, Tappin D, Blair PS, Hauck FR (2017). Duration of Breastfeeding and Risk of SIDS: An Individual Participant Meta-analysis. *Pediatrics*. Vol 140 Issue 5. Available online: <http://pediatrics.aappublications.org/content/140/5/e20171324>.
- ²⁵ Hauck FR, Thompson JMD, Tanabe KO, Moon RY, Vennemann MM (2011). Breastfeeding and Reduced Risk of Sudden Infant Death Syndrome: A Meta-analysis. *Pediatrics*. Vol 128 Issue 1. Available online: <http://pediatrics.aappublications.org/content/pediatrics/early/2011/06/08/peds.2010-3000.full.pdf>.
- ²⁶ Dietrich CM, Felice JP, O’Sullivan E, Rasmussen KM (2012). Breastfeeding and Health Outcomes for the Mother-Infant Dyad. *Pediatric Clinics of North America*. Vol 60 Issue 1, pp. 31–48. Available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3508512/>.
- ²⁷ United States Department of Health and Human Services (2011). The Surgeon General’s Call to Action to Support Breastfeeding. Available online: <https://www.surgeongeneral.gov/library/calls/breastfeeding/calltoactiontosupportbreastfeeding.pdf>.
- ²⁸ Ball TM, Wright AL (1999). Health care costs of formula-feeding in the first year of life. *Pediatrics*. Vol 103 Issue 4, pp. 870–876.
- ²⁹ Bartick M, Reinhold A. (2010). The burden of suboptimal breastfeeding in the United States: a pediatric cost analysis. *Pediatrics*. Vol 125 Issue 5, pp. 1048–1056.
- ³⁰ Bartick MC, Schwarz EB, Green BD, Jegier BJ, Reinhold AG, Colaizy TT, Bogen DL, Schaefer AJ, Stuebe AM (2017). Suboptimal breastfeeding in the United States: Maternal and pediatric health outcomes and costs. *Maternal & Child Nutrition*. Vol 13 Issue 1.
- ³¹ United States Department of Agriculture, Food and Nutrition Service (2018) Part 246 Special Supplement Nutrition Program for Women, Infants, and Children. Accessed online: <https://www.gpo.gov/fdsys/pkg/CFR-2018-title7-vol4/pdf/CFR-2018-title7-vol4part246.pdf>.
- ³² United States Department of Agriculture, Food and Nutrition Service (2016). Breastfeeding Policy and Guidance. Available online: <https://fns-prod.azureedge.net/sites/default/files/wic/WIC-Breastfeeding-Policy-and-Guidance.pdf>.
- ³³ Forrestal S, Briefel R, Mabli J (2015). WIC Breastfeeding Policy Inventory. Available online: <https://fns-prod.azureedge.net/sites/default/files/ops/WICBPI.pdf>.
- ³⁴ 111th Congress (2010) Healthy Hunger Free Kids Act. Available online: <https://docs.google.com/document/d/15tUdMx2Xu-EpEtwZl94BZlKZ7QpSelgTdUdpcqazM/edit>
- ³⁵ The National WIC Association (2017). The Power of Peer Counselors: A WIC Success Story. Available online: <https://s3.amazonaws.com/aws.upl/nwica.org/2017-wic-bfpc.pdf>.
- ³⁶ Forrestal S, Briefel R, Mabli J (2015). WIC Breastfeeding Policy Inventory. Available online: <https://fns-prod.azureedge.net/sites/default/files/ops/WICBPI.pdf>.
- ³⁷ The National Academies of Sciences, Engineering and Medicine (2017). The WIC Food Packages: Then and Now. Available online: <https://www.nap.edu/visualizations/wic-food-packages/>.
- ³⁸ The National Academies of Sciences, Engineering and Medicine (2017). Review of the WIC Food Package: Improving Balance and Choice – Final. Available online: <https://www.nap.edu/read/23655/chapter/1>.
- ³⁹ The National Academies of Sciences, Engineering and Medicine (2017). Review of the WIC Food Package: Improving Balance and Choice – Final. Available online: <https://www.nap.edu/read/23655/chapter/1>.
- ⁴⁰ The National WIC Association (2017). NWA/NASEM Recommendation Comparisons. Available online: <https://s3.amazonaws.com/aws.upl/nwica.org/nwa-iom-recommendation-comparison-for-mmr.pdf>.
- ⁴¹ United States Department of Health and Human Services (2011). The Surgeon General’s Call to Action to Support Breastfeeding. Available online: <https://www.surgeongeneral.gov/library/calls/breastfeeding/calltoactiontosupportbreastfeeding.pdf>.
- ⁴² Castrucci BC, Hoover KL, Lim S, Maus KC (2006). A comparison of breastfeeding rates in an urban birth cohort among women delivering infants at hospitals that employ and do not employ lactation consultants. *Journal of Public Health Management Practice*. Vol 12 Issue 6, pp. 578–585.
- ⁴³ The Power of Peer Counselors: A WIC Success Story. National WIC Association. February, 2017. <https://s3.amazonaws.com/aws.upl/nwica.org/2017-wic-bfpc.pdf>.
- ⁴⁴ Merewood A., Patel B, Newton KN, MacAuley, LP, Chamberlain LB, Francisco P, and Mehta SD (2007) Breastfeeding duration rates and factors affecting continued breastfeeding among infants born at an inner-city U.S. baby-friendly hospital. *Journal of Human Lactation*. Vol 23 Issue 2, pp. 157–164.
- ⁴⁵ Schreck PK., Solem K, Wright T, Schulte C, Ronnisch KJ, Szpunar S (2017). Both Prenatal and Postnatal Interventions Are Needed to Improve Breastfeeding Outcomes in a Low-Income Population. *Breastfeeding Medicine*. Vol 12 Issue 3, pp. 142–148. Available online: <https://doi.org/10.1089/bfm.2016.0131>.
- ⁴⁶ National Institute for Children’s Health Quality (2019) Cultural Sensitivity for Better Breastfeeding Outcomes. Accessed online: <https://www.nichq.org/insight/cultural-sensitivity-better-breastfeeding-outcomes>.
- ⁴⁷ Battersby S (2010) Understanding the social and cultural influences on breast-feeding today. *Journal of Family Health Care*, Issue 10 Vol 4, pp. 128 – 131. Available online: <https://www.ncbi.nlm.nih.gov/pubmed/21053661>.
- ⁴⁸ Dornan L, Sinclair M, Kernohan WG, Stockdale J, Khuwuthyakorn V, Suppan P (2015) Thai cultural influences on breastfeeding behaviour. The Royal College of Midwives, Evidence Based Midwifery. Accessed online: <https://www.rcm.org.uk/learning-and-career/learning-and-research/ebm-articles/thai-cultural-influences-on-breastfeeding>.
- ⁴⁹ Hurley KM, Black MM, Pappas MA, Quigg AM (2008). Variation in breastfeeding behaviors, perceptions, and experiences by race/ethnicity among a low-income statewide sample of Special Supplemental Nutrition Program for Women, Infants, Children (WIC) participants in the United States. *Maternal and Child Nutrition*. Vol 4 Issue 2, pp. 95–105.
- ⁵⁰ Bolton TA, Chow T, Benton PA, Olson BH (2009). Characteristics associated with longer breastfeeding duration: an analysis of a peer counseling support program. *Journal of Human Lactation*. Volume 25 issue 1, pp. 18–27.
- ⁵¹ McCoy MB, Geppert J, Dech L, Richardson M (2017). Associations Between Peer Counseling and Breastfeeding Initiation and Duration: An Analysis of Minnesota Participants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). *Maternal Child Health Journal*. Issue 22 Vol 1, pp. 71–81.
- ⁵² Mickens AD, Modeste N, Montgomery S, Taylor M (2009). Peer support and breastfeeding intentions among Black WIC participants. *Journal of Human Lactation*. Vol 25 Issue 2, pp. 157–162.
- ⁵³ Chetwynd E, Meyer AM, Stuebe A, Costello R, Labbok M (2013). Recognition of International Board Certified Lactation Consultants by health insurance providers in the United States: results of a national survey of lactation consultants. *Journal of Human Lactation*. Vol 29 Issue 4, pp. 517–526.
- ⁵⁴ Batan M, Li R, Scanlon K (2013). Association of child care providers breastfeeding support with breastfeeding duration at 6 months. *Maternal and Child Health Journal*. Vol 17 Issue 4, pp. 708–713.
- ⁵⁵ Ryan AS, Zhou W, Arensberg MB (2006). The effect of employment status on breastfeeding in the United States. *Women’s Health Issues*. Vol 16 Issue 5, pp. 243–251.
- ⁵⁶ Schreck PK., Solem K, Wright T, Schulte C, Ronnisch KJ, Szpunar S (2017) Both Prenatal and Postnatal Interventions Are Needed to Improve Breastfeeding Outcomes in a Low-Income Population. *Breastfeeding Medicine*. Vol 12 Issue 3, pp. 142–148. Available online:



<https://doi.org/10.1089/bfm.2016.0131>.

⁵⁷ Braun ML, Giugliani ER, Soares ME, Giugliani C, De Oliveira AP, Danelon CM (2003) Evaluation of the Impact of the Baby-Friendly Hospital Initiative on Rates of Breastfeeding. *American Journal of Public Health*. Vol 93 Issue 8, pp. 1277-1279.

⁵⁸ Merewood A., Patel B, Newton KN, MacAuley, LP, Chamberlain LB, Francisco P, and Mehta SD (2007) Breastfeeding duration rates and factors affecting continued breastfeeding among infants born at an inner-city U.S. baby-friendly hospital. *Journal of Human Lactation*. Vol 23 Issue 2, pp. 157-164.

⁵⁹ Merewood A, Mehta SD, Chamberlain LB, Philipp BL, Bauchner H (2005) Breastfeeding Rates in US Baby-Friendly Hospitals: Results of a National Survey. *Pediatrics*. Vol 116 Issue 3, pp. 628-634

⁶⁰ Philipp BL, Merewood A, Miller LW, Chawla N, Murphy-Smith MM, Gomes JS, Cimo S, Cook JT (2001) Baby-friendly hospital initiative improves breastfeeding initiation rates in a US hospital setting. *Pediatrics*. Vol 108 Issue 3, pp. 677-681.