# Encouraging the Use of Evidence-Based Practices through Grant Writing to Increase Breastfeeding in Nebraska

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DEPT. OF HEALTH AND HUMAN SERVICES

# Acknowledgments

This resource has been developed by the Nebraska Pregnancy Risk Assessment Monitoring System (PRAMS) Breastfeeding Data to Action Committee. The development of the project began in 2015. A committee formed with the goal of creating a product that translated PRAMS data to action to increase breastfeeding in Nebraska.

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#### **PURPOSE**

The purpose of this resource is to improve breastfeeding rates in Nebraska by supporting organizations that provide breastfeeding support to mothers, through access to PRAMS data; evidence-based strategies to overcome reasons women stop breastfeeding; and, appropriate resources and performance measures for grant writing.

#### BACKGROUND

Breastfeeding has long been recognized as the optimal source of nutrition for infants by all leading public health institutions including the World Health Organization (WHO), the U.S. Department of Health and Human Services (DHHS) and the American Academy of Pediatrics (AAP). The 2007 summary of systemic reviews and meta-analyses on breastfeeding and associated maternal and child health outcomes published by the Agency for Healthcare Research and Quality (AHRQ) asserted the health benefits of breastfeeding to both infants and mothers, and the health risks associated with formula-feeding and early weaning.

In infants, breastfeeding lowers the risk of diseases and conditions such as type 2 diabetes (Owen et al, 2006), gastroenteritis, sudden infant death syndrome (SIDS), childhood overweight and obesity and a variety of childhood cancers (American College of Obstetricians and Gynecologists, 2016). The benefits of breastfeeding in mothers include decreased risk of breast and ovarian cancers; decreased postpartum bleeding; rapid uterine involution; decreased menstrual blood loss; increased child spacing as a result of lactation amenorrhea; and earlier return to menstrual weight (American College of Obstetricians and Gynecologists, 2016). Over the past 17 years, the Nebraska Pregnancy Risk Assessment Monitoring System (PRAMS) has collected population-based data on issues surrounding maternal attitudes and experiences before, during and after pregnancy. PRAMS data compliments the Vital Records database by providing self-reported data that is not available from other sources. Nebraska- PRAMS has a steering committee that meets annually, which identifies two to three topics from the vast topic areas of PRAMS data. This creates an opportunity for interested members and community experts to further work on data projects aimed at improving maternal and child health in communities statewide. A subcommittee is formed to work on each on the selected topics.

The Nebraska Breastfeeding Data-to-Action committee was formed to promote the use of data and best practices for improving breastfeeding. While the State of Nebraska has breastfeeding initiation rates and exclusive breastfeeding rates at 3 months that slightly surpass the Healthy People 2020 goals, it is important to note that Nebraska falls short of these goals in all of its other breastfeeding rates. The goal of this committee is to share PRAMS data and evidence-based practices aimed at improving the health of mothers and babies. Its most recent undertaking is the development of a data-use resource guide to assist organization that provide breastfeeding support within Nebraska improve their evidence-based strategies.

The data use resource guide will also help disseminate PRAMS data to help local organizations with the grant-writing process, in order for them to continue supporting breastfeeding among Nebraskan women.

This resource includes:

- Links to PRAMS data; birth rate and birth by location data.
- PRAMS data specific to breastfeeding:
- Information on best practices specific to overcoming reasons women stop breastfeeding in the populations of interest.
- ✤ General information on best practices in grant writing.

\*\*\*It is important to note that using this resource in the grant writing process does not automatically guarantee the securing of funding.

# **KEY BREASTFEEDING AND BIRTH RATE DATA RESOURCES -**

# 1. Nebraska PRAMS Data

Information on Nebraska PRAMS can be accessed on the Nebraska Department of Health

and Human Services (DHHS) PRAMS Homepage and on the Centers for Disease

Control and Prevention's (CDC) PRAMS Homepage.

Additional PRAMS data can be accessed at the DHHS **PRAMStat** page.

You can also subscribe to **PRAMS Web updates**.

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#### 2. Nebraska Birth Data

Data on Nebraska Births and birth outcomes can be accessed via the <u>Nebraska DHHS Vital</u> <u>Statistics Homepage</u>, the <u>CDC's National Vital Statistics Homepage</u>, and via the <u>CDC</u> <u>Wide-ranging Online Data for Epidemiologic Research</u> (CDC WONDER). CDC WONDER is a web application that provides access to public health data on a variety of topics like U.S. births, deaths, vaccinations, population estimates, and more.

You can subscribe to DHHS Vital Statistics Updates here.

#### SUMMARY OF NEBRASKA PRAMS BREASTFEEDING DATA -

The World Health Organization (2017) recommends the initiation of breastfeeding within one hour of birth, this is referred to as "early initiation of breastfeeding and it ensures that the infant receives colostrum. Colostrum is important for the infant because it contains a large amount of protective antibodies that gradually decrease in concentration as the colostrum changes to "mature milk" (La Leche League International, 2017). Additionally, it is recommended that an infant is exclusively breastfed for the first 6 months of life (American Academy of Pediatrics, 2012).

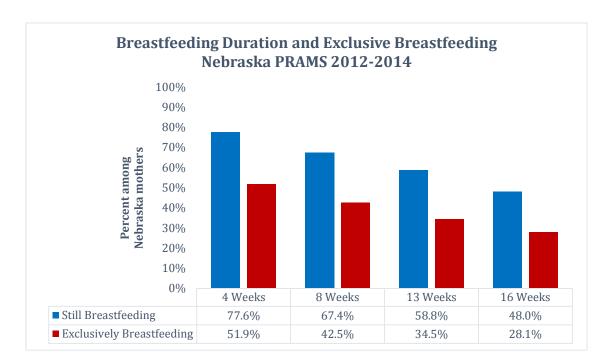
Exclusive breastfeeding is defined as feeding a child only breast milk without additional food or drink (not even water), it is important because it ensures optimal growth, health and development (World Health Organization, 2017).

The breastfeeding questions from the Nebraska PRAMS survey are listed in Appendix A.

#### **Breastfeeding Initiation, Duration, and Exclusive Breastfeeding**

Between 2012 and 2014, 88.9% of mothers with a new baby reported that they had breastfed or pumped breast milk to feed their new baby. **Figure 1** (below) presents data on breastfeeding rates in Nebraska. (For the exact wording of the questions asked about breastfeeding initiation, duration, and exclusive breastfeeding, please review questions 1-3 and 6-7 in **Appendix A**). Based on 2012-2014 PRAMS data, at four weeks postpartum, 77.6% of Nebraska mothers were breastfeeding and by 16 weeks postpartum only 48% of mothers were still breastfeeding. At four weeks postpartum, 51.9% of mothers were exclusively breastfeeding but by 16 weeks postpartum only 28.1% of mothers were

exclusively breastfeeding.



**Figure 1: Breastfeeding Duration and Exclusive Breastfeeding** 

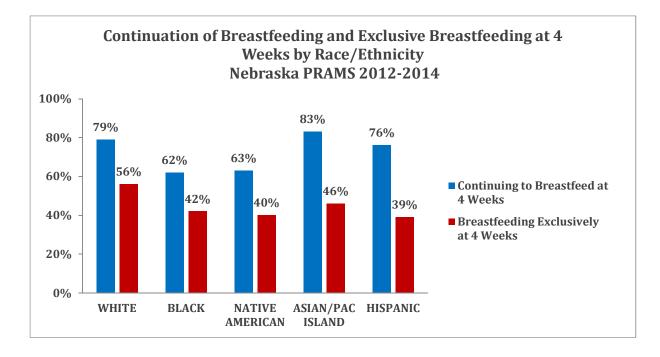
At four weeks postpartum, 77.2% of moms reported breastfeeding with no other solid food and 52.2% reported breastfeeding with no other liquids. These numbers vary slightly from those presented in **Figure 1**. Similarly, by 16 weeks postpartum, 45.5% of mothers reported breastfeeding with no other solid food and 28.9% reported breastfeeding with no other liquids. These numbers indicate that the percentages of mothers who report breastfeeding with no other solids or breastfeeding and feeding their babies solids but no other liquids aligns very closely with those who report still breastfeeding and exclusive breastfeeding, respectively. The percentage of mothers who report breastfeeding declines as baby ages.

#### **Disparities in Breastfeeding -**

Disparities exist in Nebraska for breastfeeding practices by race/ethnicity, age and socioeconomic status. **Appendix B** is a table of the prevalence of breastfeeding by race/ethnicity, urban/rural residence, age, educational attainment, Medicaid status at delivery, WIC use during pregnancy, and country of birth. Within each category, the lowest prevalence of breastfeeding at 13 weeks is among mothers who are Native American, rural, under age 20, have only a high school degree, had Medicaid for their most recent delivery, used WIC during pregnancy, or were born in the United States. These disparities demonstrate major opportunities for improvement in the breastfeeding support provided to these groups.

**Figure 2** (below) presents the percent of Nebraska mothers who continue breastfeeding and were exclusively breastfeeding at 4 weeks by race/ethnicity. Breastfeeding continuation at 4 weeks among mothers in Nebraska was highest among Asian mothers. When comparing across race/ethnicity, Asian Pacific mothers were significantly more likely than white mothers to be breastfeeding at 4 weeks (p<0.0001), and Black and Native American mothers were significantly less likely than White mothers to be breastfeeding at 4 weeks (p<0.0001). Hispanic mothers were slightly, but not significantly, more likely than white mothers to be breastfeeding at 4 weeks (p=0.1528). Reports of exclusive breastfeeding at 4 weeks were also significantly lower for Native American (40%) and Hispanic mothers (39%) than reports of White mothers (56%). It is important to note that while mothers of all races continued to breastfeed at comparably high percentages at 4 weeks postpartum, all mothers reported significantly less exclusive breastfeeding at that time point. Duration of exclusive breastfeeding can be predicted by prenatal class attendance, in-hospital formula supplementation, type of delivery, and breastfeeding selfefficacy (Henninger, Irving, Kauffman, et al. 2017; Semenic, Loiselle, and Gottlieb, 2008). Thus key competencies are developed in the first few weeks of breastfeeding that impact a mother's duration of breastfeeding.

Figure 2: Continuation of Breastfeeding and Exclusive Breastfeeding at 4 Weeks by

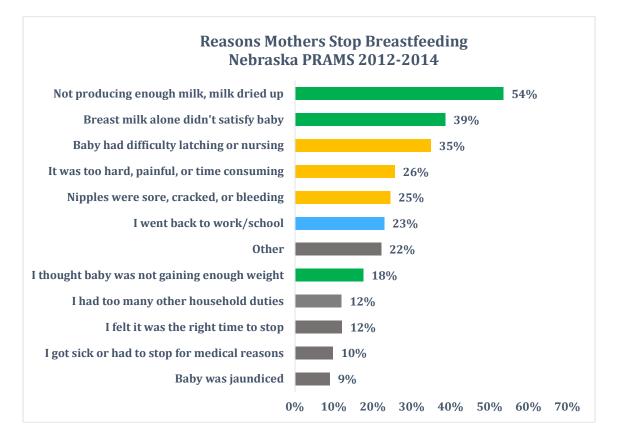


# **Race/Ethnicity**

#### **Reasons Mothers Stop Breastfeeding**

Reasons women stop breastfeeding may include barriers such as lack of knowledge about breastfeeding, misconceptions about breastfeeding, poor family and social support and others. (For the exact wording of the questions asked, please review question 4 in **Appendix A**). The most common reasons women stop breastfeeding cited by PRAMS survey respondents related to **milk supply**, **breastfeeding technique problems** and **mothers having to return to work or school (Figure 3)**.

#### Figure 3: Reasons Mothers Stop Breastfeeding -

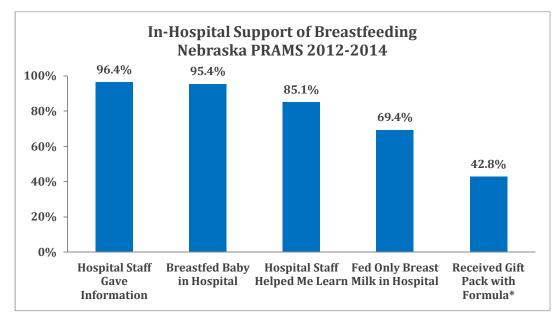


Mothers were able to cite as many reasons for stopping breastfeeding as they wanted. Problems with milk supply were reported by 65% of mothers cited. Milk supply problems included not producing enough milk, feeling like breast milk alone didn't satisfy the baby, and thinking that the baby was not gaining enough weight. Breastfeeding technique problems were reported by 43% of mothers. Technique concerns included baby's difficulty with latching or nursing, ease, pain, or time consumed by breastfeeding, and experiencing nipples that were sore, cracked, or bleeding. Stopping breastfeeding due to returning to work or school was reported by 23% of Nebraska mothers. Additional reasons for stopping breastfeeding included having too many household duties, feeling it was the right time to stop, stopping for medical reasons or illness, a jaundiced baby, or other reasons. Others reasons were reported by 22% of Nebraska's mothers. Some other reasons include things like "my baby has MSPI and allergies to wheat, corn & peanut. Also acid reflux", "the baby didn't like it" "four kids at home", "physical exhaustion" or "My baby didn't want to feed & I tried a lot but it didn't work."

#### **In-hospital Support and Breastfeeding**

In-hospital experiences and hospital practices can significantly impact a mother's decision to breastfeed and the duration of how long she breastfeeds (Barona-Vilar, Carmen, Escriba-Aguir, Vincenta et al, 2009). Reports from Nebraska's mothers indicate that access to lactation support while in the hospital and the nature of the lactation support provided vary among women in Nebraska. Questions about in-hospital breastfeeding support were only asked of women who reported ever initiating breastfeeding. (For the exact wording of the questions asked, please review question 5 in **Appendix A**). Nebraska's hospitals are increasingly practicing breastfeeding friendly practices. Between 2012 and 2014 more than 97% of women who initiated breastfeeding reported being given information about breastfeeding and initiating breastfeeding in the hospital. Women who were not given information were significantly less likely to initiate breastfeeding than women who were given information (only 84% initiated breastfeeding, p<0.0001).

**Figure 4** (below) is based on questions in the PRAMS survey about activities related to breastfeeding that took place while in the hospital for delivery. From 2012-2014, reports of hospital support were high in terms of providing information (96.4%) and breastfeeding in the hospital room (95.4%); however, reports of staff helping mother to learn how to breastfeed were lower (85.1%). The percent of mothers who fed their baby breast milk only while in the hospital increased from 67.3% to 72.0% in 2014, with an average report of 69.4% (though this increase was only marginally significant (p>0.0572)). Additionally, hospital provision of gift packs with formula continued a downward trend with a significant decrease from 44.7% in 2012 down to 38.7% in 2014 (p>0.0129). Mothers who receive formula gift packs while in the hospital have been shown to have shorter durations of overall breastfeeding and exclusive breastfeeding (Rosenberg, Eastham, Kasehagen and Sandavol, 2008).

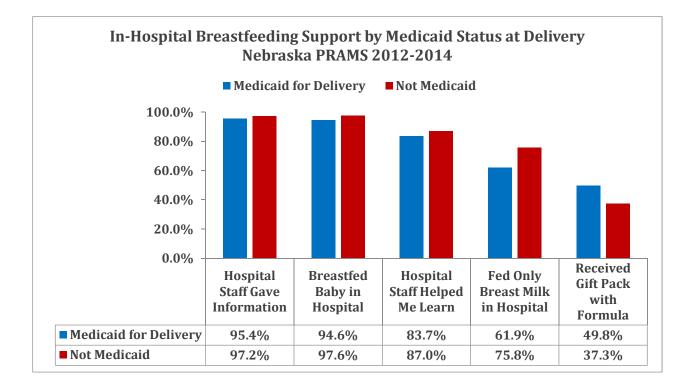


# Figure 4: In-Hospital Support of Breastfeeding

Hospitals can receive a Baby-Friendly designation if they implement the *Ten Steps to Successful Breastfeeding* and comply with the *International Code of Marketing of Breast-Milk Substitutes* (Baby-Friendly USA, Inc., 2017). Baby-Friendly hospitals are seen as centers of breastfeeding support. As of 2017, only one hospital in Nebraska (Bryan Medical Center) is designated as Baby-Friendly.

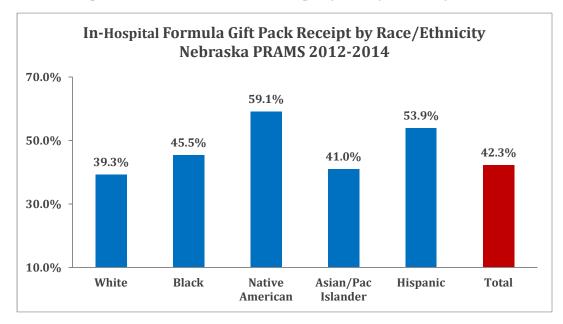
Low-income mothers of almost all races are less likely to breastfeed (McDowell, Wang, and Kennedy-Stephenson, 2008). Women with a low income or of minority status may be less

likely to receive support for breastfeeding. In Nebraska, women are eligible to qualify for Medicaid during pregnancy if their income is equal to or less than 185% of the Federal Poverty Level (FPL). For a single woman 185% FPL is \$1,671 a month, for a family of two 185% FPL is \$2,248 a month, and for a family of three 185% FPL is \$2,823 a month. To examine the relationship between income and in-hospital support mothers were classified into two categories, those who received "Medicaid for Delivery" versus those whose birth was "Not Medicaid." According to the PRAMS 2014 survey, women using Medicaid for their baby's delivery (**Figure 5**) were less likely to have received information about breastfeeding, breastfeed their baby in a hospital room, receive staff help to learn how to breastfeed, and have their baby fed only breast milk in the hospital (p<0.05). Women who used Medicaid for the baby's delivery were more likely to have received a gift pack than women who did not have Medicaid for their baby's delivery (p<0.001).



# Figure 5: In-Hospital Breastfeeding Support by Medicaid Status at Delivery Status -

Black, Hispanic and Native American mothers (**Figure 6**) were less likely than White and Asian mothers to have appropriate hospital support and more likely to have received a gift pack. Disparities in breastfeeding by race and income may start in the hospital after delivery.



#### Figure 6: In-Hospital Formula Gift Pack Receipt by Race/Ethnicity -

#### STRATEGIES TO ADDRESS REASONS MOTHERS STOP BREASTFEEDING

This section will focus on strategies that address the three major reasons women report for stopping breastfeeding identified in PRAMS data: milk supply, breastfeeding technique problems and mothers having to return to work or school. The data presented here and recent research (Semenic, Loiselle, and Gottlieb, 2008) indicates that the reasons presented here are connected. Duration and exclusivity are impacted by supply, technique, and structural supports such as in-hospital practices and work/school supports. The timing of the experience of these reasons must be considered when designing strategies to address them. For example, supply issues may be a problem immediately post-partum and resurface when a mother returns to work/school. Likewise, technique issues may be most challenging immediately postpartum but women may be able to overcome these issues with training and support. As the reasons for stopping are discussed below, the

relationship between each reason should be considered. Each proposed strategy should be considered in the context of all three reason.

# **REASON #1: PERCEIVED OR ACTUAL CHALLENGES WITH MILK SUPPLY**

A mother's early experiences with breastfeeding have a major influence on whether and how long she will breastfeed. One of the major reasons for stopping breastfeeding experienced by women early on is actual or perceived problems with milk supply. In the 2012-2014 Nebraska PRAMS Survey, 65% of mothers cited one or more issues surrounding milk supply as their reason for stopping breastfeeding. Challenges surrounding milk supply include not supplying enough milk, supplied milk not satisfying the baby and the baby not gaining enough weight. These challenges can usually be avoided or overcome by improving breastfeeding education and coaching. Examples of strategies that can be employed to overcome this reason for stopping include:

# **Strategy #1: Increase and Improve Maternity Care Practices Supporting**

# Breastfeeding

According to the CDC Guide to Strategies to Support Breastfeeding Mothers and Babies (2014), breastfeeding education during prenatal care, delivery, hospitalization, and postnatal care all influence both breastfeeding initiation and later infant feeding behavior. Institutional maternity care practices have a significant effect on rates of breastfeeding initiation and duration ((Semenic, Loiselle, and Gottlieb, 2008)).

# Activities

1. Determining if Nebraska State regulations for maternity care facilities reflect evidence-based practices and communicating your findings with key stakeholders.

- Assessing current maternity care provider breastfeeding policies and practices and communicating your findings with the providers.
- Facilitating the adoption of written breastfeeding policies in maternity care facilities, which should be routinely communicated to all maternity care staff; and training staff in skills necessary to implement a supportive breastfeeding policy.
- Providing classes or information sessions that inform pregnant women about the benefits and management of breastfeeding.
- Providing lactation support that enables mothers to initiate breastfeeding within 1 hour of birth.
- Showing mothers how to maintain breastfeeding even if they are separated from their infants, and connecting them to breastfeeding support agencies.
- Training on the negative impact of providing formula, pacifiers or artificial nipples to newborns and breastfeeding infants.
- 8. Creating links between community breastfeeding support groups and maternity care facilities, and ensuring that mothers are provided with information about these support groups upon discharge from the hospital.

# Strategy #2: Enhance, Expand, and Increase Access to Prenatal Classes to Promote and Support Breastfeeding

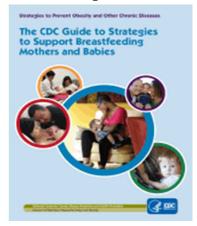
While it is important that women discuss their desire and plans to breastfeed with their health care providers, it is also vital that they learn about breastfeeding and discuss their interests or fears with a variety of people that may include fellow mothers, their family members and friends, as well as women who are educated on the topic.

# Activities

- Creating a planning group of healthcare providers, community leaders, health educators and other key stake holders to review current prenatal class offerings offered by healthcare facilities and any organizations doing so within the community.
- Communicating both strengths and weaknesses of these classes to program providers and formulating strategies aimed at strengthening and expanding these programs:
  - Develop or expand programs to include fathers, grandmothers and other supporting family members;
  - b. Strengthen programs that provide mother-to-mother support and peer counseling;
  - c. Engage more community-based organizations to create programs that promote and support breastfeeding.
  - d. Develop culturally appropriate breastfeeding support programs.
  - e. Increase breastfeeding support programs among groups of women that disproportionately demonstrate lower breastfeeding rates.

# Resources on Overcoming Reasons Women Stop Breastfeeding Associated With Milk - Supply

The CDC Guide to Strategies to Support Breastfeeding Mothers and Babies



Toolkit on Implementing the Joint Commission Perinatal Care Core Measure on Exclusive Breast Milk Feeding



#### Nebraska WIC Breastfeeding Resources



Maternity Practices in infant Nutrition and Care (mPINC) Survey



#### Academy of Breastfeeding Medicine Model Breastfeeding Policy



Surgeon General's Call to Action for Breastfeeding



#### **REASON #2: BREASTFEEDING TECHNIQUE PROBLEMS**

Reasons women stop breastfeeding that are associated with technique include latching difficulties, sore nipples or pain during breastfeeding and finding breastfeeding too challenging. According the 2012-2014 Nebraska PRAMS survey, 43% of women cited one or more of these problems as their reason for stopping breastfeeding.

# **Strategy #1: Educating Primary Care Providers on Key Breastfeeding Challenges**

Health care providers have a tremendous amount of influence on a woman's ability to breastfeed effectively, however, not all providers have the skills to help women overcome challenges with breastfeeding. It is therefore important to educate health care providers on ways to improve their breastfeeding knowledge, skills and attitudes.

#### Activities

- 1. Assessing patient breastfeeding support policies in local healthcare facilities.
- Engaging trained health care professionals to provide in-service training on breastfeeding.
- 3. Disseminating evidence-based breastfeeding protocols to local health care facilities.
- Promoting access to evidence-based online training programs for health care providers.
- 5. Developing sustainable training programs for health care professionals.

# Strategy #2: Increase Access to Breastfeeding Support for Mothers and Their Support System

While health care providers can provide key supports to mothers who are or plan to breastfeed, other supports for the mother can also increase a mother's likelihood of breastfeeding (Raj and Plichta, 1998; Barona-Vilar, Escriba-Aguir, and Ferrero-Gandia 2009). Social support can promote breastfeeding by impacting emotional, tangible, and educational components. Support from a partner, mother, family member, or close friend may be important predictors of whether or not a women will breastfeed.

Group education sessions, home visits, and individual counseling can also make a woman more likely to breastfeed her baby. Specifically, support of this type is most effective when provided through face-to-face support (De Oliveira, Camacho, and Tedstone, 2001). Breastfeeding support can be provided through organic relationships (such as those with family or friends) but support offered through programs designed to increase breastfeeding will need to build connection to improve the likelihood a mother will initiate breastfeeding and continue breastfeeding.

#### Activities

- 1. Engaging community-based organizations to provide lactation support programs and support groups for mothers and their families.
- Providing information resources for in-hospital education of women on breastfeeding.
- Providing training to women on accessing support through insurance coverage, Medicaid, or other supportive services for breastfeeding.
- Promoting periodic breastfeeding support home-visitation programs for new mothers.
- Promoting the inclusion of basic support for breastfeeding as a standard of care for health care providers.

Resources on Overcoming Challenges with Breastfeeding Technique -

American Academy of Pediatrics Breastfeeding Initiatives

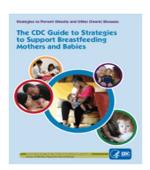


United States Department of Agriculture's Loving Support Makes Breastfeeding Work Encourages partnerships with local WIC offices



#### The CDC Guide to Strategies to Support Breastfeeding Mothers and Babies

Health E-learning BreastEd Lactation Studies Program





University of California, San Francisco: Intervention Planning Resources



Nebraska Agencies That Can Provide Assistance with Breastfeeding Technique

Nebraska Breastfeeding Coalition

<u>MilkWorks</u>

Local WIC clinics

\*\*\*It is important to note that all resources listed in each section of this resource contain useful information that can be applied to strategies aimed at overcoming all the reasons to stop breastfeeding discussed

#### **REASON #3: RETURNING TO WORK**

Working full-time outside the home, as well as the intention to do so, are related to shorter breastfeeding duration. The intention to work outside the home is also related to lower rates of breastfeeding initiation (Hmone, Agho, Alam, Dibley, 2017). According to Nebraska PRAMS data (2012-2014), close to 23% of mothers cited having to return to school or work as their primary reason for discontinuing breastfeeding. As most women return to work within 5-8 weeks after giving birth, returning to work or school and the lack of maternity leave are significant reasons women stop breastfeeding (Hmone et al, 2017). Nebraska has the fifth highest rate of mothers returning to work in the United States, with 77.4% of mothers returning to work (Nebraska MCH/Infants Needs Assessment Infants Sub-Committee, 2015).

# **Strategy #1: Increasing Support for Breastfeeding in the Workplace**

Under the Section 7 of the Fair Labors Standard Act, employers with 50 or more employees must provide:

- A reasonable break time for an employee to express breast milk for her nursing child for 1 year after the child's birth each time such employee has need to express the milk
- A place other than a bathroom that is shielded from view and free from intrusion from co-workers and the public which may be used by an employee to express breast milk.

However, an employer is not required to compensate an employee for pumping breaks unless they already provide compensated breaks. Under the Nebraska Fair Employment Practice Act (LB 627), employers with 15 or more salaried or hourly-waged employees are required to make reasonable accommodations for lactation breaks and provide appropriate facilities for breastfeeding or expressing breast milk.

While the Federal and State of Nebraska employment statutes do not apply to students who are not employees of an organization, in 2017 the Nebraska legislature passed LB427 which required breastfeeding accommodations to student-parents. School boards within each school district are required to adopt a written policy to implement by the start of the 2018-2019 school year. For more information on the requirements of LB427 please contact the Nebraska Department of Education.

# Activities

- 1. Educating employers on breastfeeding support state laws.
- 2. Educating employers on how to provide employee benefits and services that support breastfeeding. Education would focus on:
  - Creating policies that support and protect breastfeeding women in the workplace;
  - b. Providing adequate and private space for women to breastfeed or express milk in the work place and allowing flexible work scheduling to support these activities during work;
  - c. Providing on-site or nearby child care;
  - d. Offering lactation management education, services and support to mothers and pregnant women.

- 3. Educating employers on the benefits of having breastfeeding support amenities in place within their workplace such as: reduced rates of absenteeism by mothers due to less occurrences of child illness; retention of experienced employees; and, reduced health care and insurance costs.
- 4. Assessing a group of employers with 15 or more employees on their current breastfeeding policies and practices in the workplace.
- **5.** Sharing the results of the aforementioned assessment with the employers. These employers should also be provided with guidance and resources to help with improvement.
- 6. Helping employers access mini-grants to encourage establishing breastfeeding policies or for the enhancement/creation of sites for breastfeeding or milk expression.
- **7.** Providing education to pregnant employees on preparing to return to work, as well as partnering with local organizations that provide return-to-work support groups.

# **Strategy #2: Support for Breastfeeding through Early Care and Education**

Early care and education facilities include day care centers, pre-kindergarten programs, Head Start programs and in-home child care. These programs have a major influence on the duration of breastfeeding among working or school-going mothers. Therefore, they can support breastfeeding by having policies and programs that promote breastfeeding such as permitting mothers to visit and breastfeed their infants during the work day, and ensuring they have staff who are adequately trained to handle breast milk (CDC Guide to Strategies to Support Breastfeeding, 2015).

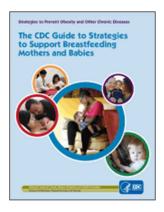
# Activities

- Assessing early care and education facilities in your community and determining how many have allowances for breastfeeding support such as allocated space for breastfeeding or pumping, adequate refrigeration for expressed milk, and staff trained to handle breast milk.
- 2. Sharing the findings of your assessment with early care and education facilities.
- 3. Directing them to the appropriate resources to improve their current status.

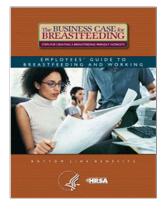
# **Resources on Increasing Breastfeeding Support in the Workplace**

#### \*Please note that each image is hyperlinked to its resource web page

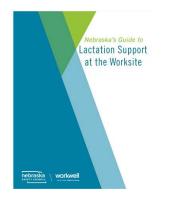
#### The CDC Guide to Strategies to Support Breastfeeding Mothers and Babies



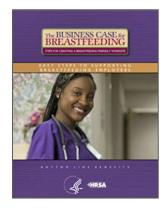
The Business Case for Breastfeeding: Employee Guide to Breastfeeding and Working



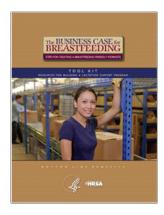
#### Nebraska's Guide to Lactation Support Toolkit



The Business Case for Breastfeeding: Easy Steps to Supporting Breastfeeding Employees



A Business Case for Breastfeeding Tool Kit: Resources for Building a Lactation Support Program



University of California, San Francisco: Intervention Planning Resources



#### **BEST PRACTICES IN GRANT WRITING**

When developing a grant proposal an important first step is to identify a potential funder and learn about their funding and requirements. A grant proposal is a bid for funding. A grant proposal is a clear statement of need, the plan to serve that need and a specific request for funds to support the successful implementation of that plan. Good grant writing skills are essential to the success of breastfeeding support organizations as they allow for the accessing of more funding for the implementation of better interventions that cover broader communities.

# **Major Components of a Grant Proposal**

 -Needs Assessment: this is the process of identifying the needs of a community and the desired outcome of addressing those needs. It is important to not only understand what the needs of the community or group are, but to define the community and prioritize what needs should be addressed.

A community needs assessment does not necessarily have to be done by your organization but you may access assessments that have already been done and are available for public use.

#### **Resources:**



Best Practices for Community Health Needs Assessment and Implementation Strategy Development: A Review of Scientific Methods, Current Practices, and Future Potential



#### 2. - Performance Measures or Indicators

In order for lactation support organizations to practically evaluate their performance, it is important for them to clearly define the following elements at the beginning of their project:

- Goals and objectives and how they will be achieved
- Realistic timeline for achieving their goals and objectives
- Measurable outcomes

A **Logic Model** is a useful tool for projecting this information and demonstrating change resulting from the organization's activities within the community. In addition, logic models are useful in describing what resources should go into the project, how the project will work and what outcomes are expected (short-term, intermediate and long-term). They can be used during the planning phase of the proposal, within the proposal and after proposal development. They can be used to configure budgets; improve and focus reports and deliverables; to determine evaluative priorities; and ensure their entire team is on the same page. Below is an example of a logic model for the increase of breastfeeding support in the workplace (Figure 7).

# **Figure 7:** Example of a Logic Model to Increase Maternity Care Practices to Support

Breastfeeding	
INPUTS	<ul> <li>Grant Funding to support breastfeeding initiatives</li> <li>Staff with expertise on assessment skills and breastfeeding information</li> <li>Relationship with local community and professional organizations</li> </ul>
	•
ACTIVITIES	<ul> <li>Assessment of current provider breastfeeding policies and practices</li> <li>Breastfeeding support training for providers and maternity care staff</li> <li>Development of a breastfeeding education newsletter</li> <li>Providing appropriate resource materials to maternity care facilities</li> <li>Linkage of maternity health care facilities to community breastfeeding support networks</li> </ul>
	+
	Measured numbers of participating:
OUTPUTS	<ul> <li>OB GYN Physicians and/or Pediatricians</li> <li>Hospital maternity care supporting staff</li> <li>Lactation consultants and nutrition supporting staff</li> <li>Mothers in provider referred community breastfeeding support networks</li> </ul>
	•
SHORT TERM OUTCOMES	<ul> <li>% of providers assessed for policies/practices</li> <li>% of physicians with a written breastfeeding policy</li> <li>% of physicians / office staff that attended provider education trainings</li> <li>% of providers that have materials displayed in rooms with patient traffic</li> <li>% of offices that provide breastfeeding information packets</li> </ul>
INTERME DIATE OUTCOMES	<ul> <li>% of mothers that initiate breastfeeding in the hospital</li> <li>% of mothers that continue to breastfeed after hospital discharge</li> <li>% of mothers that continue to breastfeed up to 6 months of age</li> <li>Improved measurable infant and child health rates</li> </ul>
	· · · · · · · · · · · · · · · · · · ·
LONG TERM OUTCOMES	<ul> <li>% of mothers that initiate breastfeeding in the hospital</li> <li>% of mothers that continue to breastfeed after hospital discharge</li> <li>% of mothers that continue to breastfeed up to 6 months of age</li> <li>Improved measurable infant and child health rates</li> </ul>

Logic Model adapted from the University of California, San Francisco Family Health Outcome Project's Model on <u>PROVIDER EDUCATION PROGRAMS TO PROMOTE</u> <u>BREASTFEEDING</u>

\*Please note that the logic model above is an example and that you will have to employ performance measures that best suit your organization's objectives

- Activities: outline what activities you will carry out in order to achieve your goals and objectives.
- 4. -Work plan: it is important to include a clear work plan in your grant proposal. Figure 8 (on the next page) provides a work plan outline. A work plan is a document that can be used to organize and subsequently outline a project. It shows what activities will be included in the project, when those activities will be undertaken, who will complete the activities and how funding will be allocated to the planned activities.

#### **Resource:**

Handbook of Practical Program Evaluation / Edition 3 (Chapter 3: pages 55 to 79)

By Joseph S. Wholey, Kathryn E. Newcomer, Harry P. Hatry

University of California, San Francisco Family Health Outcomes
 <u>Project Intervention and Evaluation Planning Tools</u>

Figure 8: Sample Work Plan

# (Agency Name) Work Plan Fiscal Year 2017-2018

Administrative Goal: I. Outcome Goal: (3 year)

One Year Objective	Activity	Staff	Begin/End	Evaluation

## Clinical Goal: I. Outcome Goal: (3 year)

One Year Objective	Activity	Staff	Begin/End	Evaluation

# Financial Goal: I. -Outcome Goal: (3 year)

One Year Objective	Activity	Staff	Begin/End	Evaluation

# **Community Education Goal:**

I. - Outcome Goal (3 year):

One Year Objective	Activity	Staff	Begin/End	Evaluation

**5.** - **Budget and budget justification:** provide a detailed budget and justification for each expense.

# 6. - Measuring your objectives:

# **Qualitative Evaluation**

This can involve the use of observation, interviews or focus groups to monitor change in knowledge, attitude, skills or behavior.

<u>Quantitative Evaluation:</u> this can involve the use of pre/post surveys or tests to measure changes in knowledge; attitude, behavior or skills.

# Tailoring a Grant Proposal to a Population of Interest -

## 1. - Community engagement

- Work collaboratively with communities to identify community leaders who can be an active voice.
- Recognize community capacity (pros and cons).
- Prioritize community empowerment.
- Incorporate cultural humility/cultural competency into project.
- Recognize and plan to address inequalities within communities which influence breastfeeding or may influence the success of your intervention.
- Make a long-term commitment (enable the community to sustain the program after your project has ended).

## 2. - Use of evidence-based strategies

There is an increasing call for the use of evidence-based models or proven approaches with fidelity by both federal and non-federal funding programs.

#### 3. - Cross-sector collaboration

 Create intentional linkages between cross-sector partners in areas such as health, housing, neighborhoods, finance, education, and others.

#### 4. - Impact on poverty

Take into account the role poverty plays in causing or addressing the issue.

#### 5. - Use of local data

 When possible, use local data to inform the issue, to determine who is affected and to describe characteristics of their location.

## Important Tips for Successful Grant Writing -

- Find the appropriate funding opportunities: locate funding opportunity announcements (FOAs); and, consult with Funding Institution staff to ensure you have selected the correct FOA.
- Identify key players from within the organization to provide insight during the grant writing process. When possible, create a cross-departmental collaborative grant writing team.
- Invest in a grant writer or training to sharpen your grant-writing skills.
- Plan your work: start early, define goals and targets and prepare your preliminary data or accomplishments.
- Be organized and logical: Use clear headings, sub-headings and assigned sections correctly.
- Sell your idea on paper: make a case for why you should be funded.
- Set realistic project goals: do not propose more work than can be reasonably done during the proposed project period.
- ◆ Make sure you are adhering to ALL of the application requirements of the funder.
- Justify your budget using your proposed goals.
- ✤ Write in clear concise language.
- Proof read your work.
- Share your grant with colleagues or neutral parties for comments.

#### **GRANT-FUNDING RESOURCES**

- 1. <u>Centers for Disease Control and Prevention Funding Resources</u>
- 2. <u>Centers for Disease Control and Prevention Budget, Grants and Funding</u>
- 3. <u>CDC Grants</u>
- 4. <u>Grants.Gov</u>
- 5. <u>The CDC Foundation</u>
- 6. <u>U.S. Department of Health and Human Services Grants</u>
- 7. <u>The Kellogg Foundation</u>
- 8. <u>Community Health Endowment of Lincoln</u>
- 9. <u>PH Partners: Partners in Information Access for the Public Health Workforce</u>
- 10. Baby Café USA

These resources are examples of credible funding sources. This list is not an endorsement of any of the listed funding sources. Additionally, when looking for grants additional opportunities may be available at the local, state, and national level. Finding all opportunities will require effort outside of the review of this list.

\*\*\*Applying for grant funding from any of the above mentioned sources does not guarantee that you will receive funding.

#### REFERENCES

- American Academy of Pediatrics (2012). AAP Reaffirms Breastfeeding Guidelines. Retrieved July 5, 2017 from: <u>https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/aap-reaffirms-breastfeeding-guidelines.aspx</u>
- American Academy of Pediatrics (2016). AAP policy on breastfeeding and use of human milk. Retrieved on April 12<sup>th</sup> 2016, from: <u>http://www2.aap.org/breastfeeding/policyonbreastfeedinganduseofhumanmilk.ht</u> <u>ml</u>
- Baby-Friendly USA, Inc. (2017). BFHI Worldwide. Retrieved on July 12, 2017 from <u>https://www.babyfriendlyusa.org/about-us/baby-friendly-hospital-initiative/bfhi-worldwide</u>
- Barnett K. (2012, February) Best Practices for Community Health Needs Assessment and Implementation Strategy Development: A Review of Scientific Methods, Current Practices, and Future Potential. Retrieved on August 4, 2016 from:

http://www.phi.org/uploads/application/files/dz9vh55o3bb2x56lcrzyel83fwfu3m vu24ogqvn5z6gaeiw2u4.pdf

- Barona-Vilar, Carmen, Escriba-Aguir, Vincenta, Ferrero-Gandia, Raquel (2009). A qualitative approach to social support and breast-feeding decisions. *Midwifery* 25, 187-194.
- CDC (2015). Funding opportunities. Retrieved on April 6, 2016 from: <u>http://www.cdc.gov/stltpublichealth/grantsfunding/opportunities.html</u>
- 7. Centers for Disease Control and Prevention (2014). Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Support Breastfeeding

Mothers and Babies. Retrieved on April 16, 2016 from:

http://www.cdc.gov/breastfeeding/pdf/BF-Guide-508.PDF

Centers for Disease Control and Prevention (2015). Grant writing guidance and tips.
 Retrieved on April 6, 2016 from:

http://www.cdc.gov/stltpublichealth/grantsfunding/grant-writing.html

- 9. Community Health Endowment (2016). Grant Program Overview. Retrieved on April 5, 2016 from: <u>http://www.chelincoln.org/grant\_program/ready\_to\_apply.html</u> and <u>http://www.chelincoln.org/grant\_program/current\_priorities.html</u>
- 10. Community Tool Box (2016). Community Assessment: Chapter 3- Assessing Community Needs and Resources. Retrieved on August 4, 2016 from: <u>http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources</u>
- 11. De Oliveira, M.I., Camacho, L.C., Tedstone, A.E (2001). Extending breastfeeding duration through primary care: A systematic review of prenatal and postnatal interventions. *Journal of Human Lactation* 17, 326-343.
- 12. Fairbank L, O'Meara S, Renfrew MJ, Woolridge M, Sowden AJ, Lister Sharp D.A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding. Health Technol Assess. 2000; 4(25): 1-171
- 13. Grants.Gov Accessed on April 6, 2016 from: <u>http://www.grants.gov/</u>
- Henninger, M.L., Irving, S.A., Kauffman, T.L., Kurosky, S.K., Rompala, K., Thompson, M.G., Sokolow, L.Z., Ammon Avalos, L., Ball, S.W., Shifflett, P., Naleway, A.L. (2017).
  Predictors of Breastfeeding Initiation and Maintenance in an Integrated Healthcare Setting. *Journal of Human Lactation*, 33(2):256-266.

- 15. Hmone, M.P., Agho, K., Li, M., Alam, A., Dibbley, M.J. (2017). Factors associated with intention to exclusive breastfeed in central women's hospital, Yangon, Myanmar. International Breastfeeding Journal. 12:29. Retrieved July 5, 2017 from: <a href="https://internationalbreastfeedingjournal.biomedcentral.com/articles/10.1186/s13006-017-0120-2">https://internationalbreastfeedingjournal.biomedcentral.com/articles/10.1186/s13006-017-0120-2</a>
- 16. Kimbro RT. On-the-job moms: work and breastfeeding initiation and duration for a sample of low-income women. Matern Child Health J. 2006; 10(1): 19-26
- 17. La Leche League International (2017). What is colostrum? How does it benefit my baby? Retrieved on July 5, 2017 from:

http://www.lalecheleague.org/faq/colostrum.html

- 18. McDowell MA, Wang C-Y, Kennedy- Stephenson J. (2008). Breastfeeding in the United States: Findings from the National Health and Nutrition Examination Surveys 1999–2006. NCHS data briefs, no 5. Hyattsville, MD: National Center for Health Statistics.
- 19. Nebraska PRAMS Breastfeeding Summary (2010-2012). Retrieved on April 5, 2016 from: <u>http://dhhs.ne.gov/publichealth/Pages/prams.aspx</u>
- 20. Nebraska Maternal and Child Health Needs Assessment Subcommittee (2015). Problem Statement.
- 21. Nebraska MCH/Infants Needs Assessment Infants Subcommittee (2015).
   Breastfeeding of Nebraska Infants A Public Health Priority. Retrieved July 6, 2017 from:

http://dhhs.ne.gov/publichealth/MCHBlockGrant/Documents/5 Breastfeeding MC <u>H Assessment.pdf</u>

- 22. NIH (2016). Grants and Funding: Write your application. Retrieved on April 5, 2016 from: <u>http://grants.nih.gov/grants/how-to-apply-application-guide/format-and-</u> <u>write/write-your-application.htm#ImportantWritingTips</u>
- 23. NIH (2016). Grants and Funding: Plan your application. Retrieved on April 5, 2016 from: <u>http://grants.nih.gov/grants/planning\_application.htm</u>
- 24. NIH (2016). Grants process overview. Retrieved on April 5, 2016, from: http://grants.nih.gov/grants/grants\_process.htm
- 25. Office of Women's Health: U.S. Department of Health and Human Services (2014). Business Case for Breastfeeding. Retrieved on July 25, 2016 from: <u>http://www.womenshealth.gov/breastfeeding/business-case-for-breastfeeding.html</u>
- 26. Owen CG, Martin RM, Whincup PH, et al. (2006). Does breastfeeding influence risk of type 2 diabetes in later life? A quantitative analysis of published evidence. *Am J Clin Nutr*; 84(5):1043-5.
- 27. Raj, V.K, Plichta, S.B. (1998). The role of social support in breastfeeding promotion:A literature review. *Journal of Human Lactation* 14:1, 41-45.
- 28. Ryan AS, Zhou W, Arensberg MB. The effect of employment status on breastfeeding in the United States. Women's Health Issues. 2006; 16(5): 243-251
- Semenic, S. Loiselle, C. & Gottlieb, L. (2008). Predictors of the Duration of Exclusive Breastfeeding among First-Time Mothers. *Research in Nursing & Health*, 31, 428-441.

- 30. US Department of Health and Human Services (2000). HHS blueprint for action on breastfeeding. Washington, DC: US Department of Health and Human Services, Office on Women's Health.
- 31. U.S. Department of Health and Human Services (2011). The Surgeon General's Call to Action to Support Breastfeeding. Retrieved on July 27, 2016 from: <u>http://www.surgeongeneral.gov/library/calls/breastfeeding/calltoactiontosupport</u> <u>breastfeeding.pdf</u>
- 32. U.S. Department of Health and Human Services (2016). HHS Grants. Retrieved on April 6, 2016 from: <u>http://www.hhs.gov/grants/grants/index.html</u>
- 33. U.S. Department of Labor (2010). Wage and Hour Division: Section 7 of the Fair
  Labor Standards Act- Break time for nursing mother's provision. Retrieved on July
  20, 2016 from: <a href="https://www.dol.gov/whd/nursingmothers/sec7rflsa">https://www.dol.gov/whd/nursingmothers/sec7rflsa</a> btnm.htm
- 34. USA.gov (2016). Benefits, grants and loans. Retrieved on April 7, 2016 from: <u>https://www.usa.gov/money</u>
- 35. Work Well-Nebraska Safety Council (2016). Nebraska's Guide to Lactation Support at the Worksite. Retrieved on July 31, 2016 from: <u>https://www.nesafetycouncil.org/images/stories/WorkWell/Resources/Nebraskas</u> <u>%20Guide%20to%20Lactation%20Support%20Toolkit.pdf</u>
- 36. Work Well-Nebraska Safety Council (2016). Lactation Support at the Worksite.Retrieved on July 31, 2016 from:

https://www.nesafetycouncil.org/index.php/program-resources/lactation-support

37. World Health Organization (2016). Infant and young child feeding. Retrieved on April 12<sup>th</sup> 2016, from: <u>http://www.who.int/mediacentre/factsheets/fs342/en/</u>

38. World Health Organization (2017). Exclusive Breastfeeding. Retrieved on July 5, 2017, from: <u>http://www.who.int/nutrition/topics/exclusive\_breastfeeding/en/</u>

#### **APPENDIX** A

#### **BREASTFEEDING QUESTIONS FROM THE NEBRASKA PRAMS SURVEY 2012-2014**

- 1. -Did you ever breastfeed or pump breast milk to feed your new baby, even for a short period of time?
  - □ No Go to Question 7
  - $\Box$  Yes

## 2. Are you currently breastfeeding or feeding pumped milk to your new baby?

- 🗆 No
- □ Yes Go to Question 5
- 3. How many weeks or months did you breastfeed or pump milk to feed your baby?

\_\_\_\_\_Weeks OR \_\_\_\_\_Months

 $\Box$  Less than 1 week

#### 4. What were your reasons for stopping breastfeeding? Check ALL that apply

- □ My baby had difficulty latching or nursing
- □ Breast milk alone did not satisfy my baby
- □ I thought my baby was not gaining enough weight
- □ My nipples were sore, cracked, or bleeding
- □ It was too hard, painful, or too time consuming
- □ I thought I was not producing enough milk, or my milk dried up
- □ I had too many other household duties
- □ I felt it was the right time to stop breastfeeding
- □ I got sick or I had to stop for medical reasons
- $\Box$  I went back to work or school
- □ My baby was jaundiced (yellowing of the skin or whites of the eyes)
- Other Please tell us: \_\_\_\_\_\_

#### If your baby was not born in a hospital, go to Question 6.

**5.** - This question asks about things that may have happened at the hospital where your new baby was born. For each item, check **No** if it did not happen or **Yes** if it did happen.

	No	Yes
a. Hospital staff gave me information about breastfeeding	Ν	Y
b. Hospital staff helped me learn how to breastfeed	Ν	Y
c. I breastfed my baby in the hospital	Ν	Y
d. My baby was fed only breast milk at the hospital	Ν	Y
e. The hospital gave me a gift pack <b>with formula</b> -	Ν	Y

6. - How old was your new baby the first time he or she drank liquids other than breast milk (such as formula, water, juice, tea, or cow's milk)?

\_\_\_\_\_Weeks OR \_\_\_\_\_Months

 $\Box$  My baby was less than 1 week old

 $\hfill\square$  My baby has not had any liquids other than breast milk

# 7. - How old was your new baby the first time he or she ate food (such as baby cereal, baby food, or any other food)?

\_\_\_\_\_Weeks OR \_\_\_\_\_Months

 $\Box$  My baby was less than 1 week old

 $\hfill\square$  My baby has not eaten any foods

# **APPENDIX B** -

		Ever breastfed	Breastfeeding at 4 weeks	Exclusive breastfeeding at 4 weeks	Breastfeeding at 13 weeks (3 months)	Exclusive Breastfeeding at 13 weeks (3 months)
	All	88.9	77.6	52.0	58.8	34.5
Maternal characteristics						
Race/Ethnicity	White non-Hispanic	89.9	79.0	55.9	60.2	38.4
	Black non-Hispanic	79.4	66.3	42.1	48.3	22.4
	Native American	80.6	63.8	40.2	38.9	20.2
	Asian or Pacific Islander	89.4	83.4	45.8	69.5	32.4
	Hispanic	89.2	76.4	39.2	57.0	24.2
	p-value	<.0001	<.0001	<.0001	<.0001	<.0001
Residence	Urban County	89.3	79.0	53.8	61.5	36.8
	Rural County	88.5	75.7	49.5	55.0	31.4
	p-value	0.5514	0.0532	0.0364	0.0027	0.0112
Age	<20	82.9	57.4	38.6	28.1	16.9
	20 to 24	86.2	70.8	50.0	44.9	26.4
	25 to 34	90.2	81.0	53.5	64.6	37.9
	>34	90.5	81.8	53.8	70.1	41.0
	p-value	0.0035	<.0001	0.0038	<.0001	<.0001
Educational attainment	0-11 Years	80.0	63.1	31.8	44.5	18.2
	12 Years (High School complete)	81.0	62.3	40.3	38.4	20.4
	13-15 Years (some college)	89.3	77.8	53.6	55.1	33.9
	16 or More Years (Bachelor's or more)	95.7	90.1	63.1	78.6	49.0
	p-value	<.0001	<.0001	<.0001	<.0001	<.0001

		Ever breastfed	Breastfeeding at 4 weeks	Exclusive breastfeeding at 4 weeks	Breastfeeding at 13 weeks (3 months)	Exclusive Breastfeeding at 13 weeks (3 months)
Medicaid for Delivery	NO (UNCHECKED)	93.9	86.3	59.1	71.3	43.8
	YES (CHECKED)	82.2	65.8	42.2	43.0	22.7
	p-value	<.0001	<.0001	<.0001	<.0001	<.0001
WIC during pregnancy	NO	93.7	86.1	59.5	69.5	42.8
	YES	80.7	63.1	38.8	41.4	20.9
	p-value	<.0001	<.0001	<.0001	<.0001	<.0001
Country of birth	OTHER COUNTRY (immigrant)	91.2	82.3	43.0	68.4	30.2
	UNITED STATES US	88.5	76.8	53.5	56.9	35.3
	p-value	0.0315	0.0012	<.0001	<.0001	0.0172