

Breastfeeding supports and challenges:

mothers' perspectives on healthcare, worksites and social influences



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Breastfeeding supports and challenges: mothers' perspectives on healthcare, worksites and social influences



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Minnesota Breastfeeding Coalition

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Minnesota Department of Health Women, Infants & Children (WIC) Program

Native American Community Clinic

Robbinsdale Public Schools – Early Childhood Family Education

Rochester Public Schools – Early Childhood Family Education

Wilder Research Survey Center

October 15, 2010

Dear Breastfeeding Promotion Stakeholders of Minnesota,

The Minnesota Department of Health (MDH) is pleased to present the report, *Breastfeeding supports and challenges: Mothers' perspectives on healthcare, worksites, and social influences* <http://www.health.state.mn.us/mnpan>. MDH commissioned this assessment by Wilder Research in order to better understand the social and physical environmental conditions that impact women's decisions to breastfeed. It is one of the department's efforts to improve the health and well being of mothers, infants and children in Minnesota by encouraging and supporting breastfeeding initiation and duration, as the preferred infant feeding practice.

According to the U.S. Department of Health and Human Services, breastfeeding provides tremendous health benefits to both mothers and babies. To obtain the most benefit, maternal and child health experts recommend women exclusively breastfeed their babies for at least six months, and continue breastfeeding through one year or longer. According to the most recent data, only about half of Minnesota's mothers breastfeed for six months or longer.

Though the data shows that many Minnesota women initiate breastfeeding, clearly we have further work to do as a state if we want the majority of Minnesota mothers to successfully continue breastfeeding their infants for at least one year. In addition, it is important to better understand and work to reduce disparities in breastfeeding rates among different populations in the state, so all Minnesota's children have a healthy start in life.

The recommendations outlined in this report provide important guidance to Minnesota health care systems, employers and government agencies for how they can create supportive environments and systems that encourage new mothers to initiate breastfeeding at birth, and then maintain breastfeeding upon returning to work. I encourage these key stakeholders and Minnesota breastfeeding advocates to review this report and its recommendations and to take action to support breastfeeding mothers in our health care systems, workplaces and communities across the state, for the benefit of the health and well being of Minnesota's families and children.

If you have any questions or comments, please contact Martha Roberts at 651-201-5492.

Sincerely,

A handwritten signature in black ink that reads "Sanne Magnan". The signature is written in a cursive, flowing style.

Sanne Magnan, M.D., Ph.D.
Commissioner
P.O. Box 64975
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Executive Summary

Introduction

Breastfed babies are at a lower risk for many health problems, such as ear and respiratory infections, diarrhea, asthma, and obesity, and mothers who breastfeed are less likely to develop diabetes or breast or ovarian cancer (U.S. Department of Health and Human Services website, www.womenshealth.gov). For the health of babies and mothers, health experts recommend women exclusively breastfeed their babies for at least six months, and continue breastfeeding through one year or longer. According to data collected from the National Immunization Survey, 80 percent of babies born in 2006 in Minnesota were breastfed, 52 percent were breastfed six months or more (15% exclusively), and 25 percent were breastfed 12 months or more.

To learn more about how to promote a supportive environment for breastfeeding, the Minnesota Department of Health's Physical Activity and Nutrition Unit and Women, Infants and Children (WIC) Program partnered with Wilder Research to conduct focus groups and interviews with a diverse cross section of mothers of infants in Minnesota. Questions centered on the supports for and challenges of breastfeeding infants, particularly in relation to their experiences with health care settings, worksites, and social influences.

Characteristics of respondents

Wilder Research conducted 12 focus groups and 82 interviews. Most of the participating women were between 18 and 34 years old. Because community organizations hosted groups specifically targeting certain populations (i.e., people from specific geographic areas, of lower incomes, or from specific racial or ethnic backgrounds), the focus groups included more women of color, fewer women with college degrees, and more women from greater Minnesota. In comparison, most of the interview respondents were white, had at least some college education, and over two-thirds were from the Twin Cities.

Infant feeding plans and influences

Before their babies were born, 75 percent of the women interviewed planned to breastfeed exclusively, and another nine percent planned to breastfeed in combination with formula. Most chose breastfeeding because of the health benefits for both their baby and themselves. Mothers were largely influenced by family and friends, who had breastfed, though a few were influenced by their own previous experience or encouraged by doctors or the WIC staff.

Almost all of the mothers that planned to breastfeed initially did. The few that planned to, but didn't, had difficulty with latching or were on pain medications after their child's birth. Several introduced formula later.

At the time of their participation in the assessment, 56 percent of mothers were breastfeeding, either exclusively or in combination with formula or solids.

Perceived knowledge of infant feeding

During the focus groups, mothers were asked to list what they believed to be the benefits of breastfeeding and the benefits of formula feeding (listed below in frequency order):

Breastfeeding

- **Health benefits.** Many mothers perceived breastfeeding to be healthier for babies and themselves. Some mothers cited specific health benefits, such as: better immunity, more vitamins and minerals, fewer allergies, easier digestion, better weight gain and growth, increased cognitive development, and mothers' weight management.
- **Emotional bonding.** Some mothers emphasized the bonding that breastfeeding provides.
- **Convenience.** Many mothers also felt breastfeeding was more convenient because they did not have to buy, prepare or clean bottles, and they always had a food source available for the baby.
- **Expense.** Mothers also discussed the cost benefits of breastfeeding.

Formula feeding

- **Convenience.** Many mothers felt formula feeding is more convenient and less "embarrassing" in public. Formula feeding provides mothers, especially working mothers, more independence. Some mothers felt that formula kept their babies full longer and allowed their infants to sleep more at night.
- **Comfort.** Mothers also felt that formula feeding tended to be more comfortable than breastfeeding, which can be painful and messy.
- **Health benefits.** Some mothers thought there were health benefits of formula, including more vitamins and minerals.
- **Control over quantity.** Mothers felt that formula feeding allowed them to monitor the amount of food their babies received.

Knowledge and influence of health care providers

Respondents were asked about the types and sources of information they received from their health care providers (i.e., doctor, physician's assistant, midwife, clinic nurse, public health nurse, home care nurse, or doula) on infant feeding while they were pregnant, in the hospital after the delivery, and postpartum. Below are the most common ways women noted receiving information from their health care providers.

- **Literature.** Many respondents received written materials from their doctors, midwives, nurses or doulas both prenatally and postpartum. The information received prenatally was more general on the benefits of breastfeeding, books and magazines on caring for infants, and brochures on using formula; whereas information received postpartum was more specific on feeding schedules, signs of hunger, types of formula, phone numbers for follow-up questions, common breastfeeding challenges and solutions, do's and don'ts of infant feeding, how to store milk, and how to clean bottles. While some felt this written information was useful, others had already decided whether to breastfeed and did not look at the literature, or did not find it helpful.
- **Verbal advice.** Some mothers talked to their health care providers, public health nurses, or WIC staff. Before their babies were born, health care providers: 1) encouraged mothers to breastfeed; 2) asked mothers what their plans were and provide information based on their plans; or 3) waited for women to ask questions and respond. In the hospital, women reported that nurses, and some doctors, encouraged breastfeeding. While some felt conversations with health care providers were useful, others had already decided whether to breastfeed and did not find it helpful.
- **Hands-on-help and home visits.** Some women reported receiving hands-on-help from nurses or lactation consultants during their hospital stay. Mothers also reported receiving home visits from nurses or lactation consultants after they went home from the hospital.. They either received referrals from their doctors or set up appointments while in the hospital. Most felt this was very helpful.
- **Classes.** A few mothers were referred to parenting, child birthing, and breastfeeding classes by their health care providers. The classes showed videos on how to breastfeed, provided pumps, and discussed the benefits of breastfeeding. A number of the women liked these classes.
- **Formula supplements and samples.** Many women said they received formula samples at the hospital. Some breastfeeding mothers felt the nurses pressured them to

give their newborns formula before they left the hospital, whereas women who were formula feeding were grateful for the formula samples.

- **Hospital practices.** A few women noted that nurses encouraged skin-to-skin contact while they were in the hospital. Rooming-in was not largely mentioned, though this does not necessarily mean babies did not room-in with mothers.

While many mothers reported receiving information from health care providers, several respondents did not receive any information on infant feeding from their health care providers prenatally, or any information from the hospital staff after their baby was born. Others felt the hospital nurses encouraged breastfeeding, but were not available to help them breastfeed. Several mothers also reported learning about infant feeding from friends and family, or found information on the Internet or books.

Influence of information from health care providers

Most women felt the information they received from their health care providers did not influence their decision whether to breastfeed. Many said, “I had my mind made up so it didn't change my mind.” Some, however, noted that their healthcare provider affirmed their decision to breastfeed.

Support from health care providers

Many women felt their health care providers were supportive of whatever decision they made: “they make you feel either way is fine, breastfeeding or formula.” Breastfeeding mothers noted that their health care professionals provided lactation consultants when needed, were open to questions, helped troubleshoot when problems arose, and provided resources. Several mothers that initiated formula feeding said their health care providers supported them by providing formula samples and suggestions for affordable formula, and “did not say anything negative” if they didn't breastfeed.

Others felt their health care providers were unsupportive. Some reported their health care providers either pressured them to breastfeed when they didn't want to, or to supplement with formula when they wanted to breastfeed exclusively.

The women offered the following suggestions on how health care providers can better support new mothers in relation to infant feeding:

- **More education on the logistics of breastfeeding.** While many mothers received a lot of information about the benefits of breastfeeding, they felt they could use more information on what foods to eat, the importance of drinking water while breastfeeding, the difficulties of breastfeeding (sore nipples, thrush, clogged ducts,

pain and soreness), issues of the baby biting and latching, and why breastfeeding is beneficial. As one woman noted, “It seems they keep the bad information away. There’s a lot of ‘normal’ that’s not shared in the wide public.”

- **More information on combining breastfeeding and formula.** Mothers reported conflicting information they received about supplementing breast milk with formula, and would like more complete information on combining breast milk and formula.
- **More information on formula.** A few women wanted more information on formula, such as side effects, to either help them decide whether to breastfeed, or choose an appropriate formula for their baby.
- **A mentor.** Many mothers reported how helpful it was to talk to other moms about their breastfeeding experiences. They suggested pairing new mothers with “breastfeeding buddies” to help them overcome the challenges of breastfeeding.
- **Include feeding as part of the birth plan.** One woman felt that mothers’ intentions are not always honored and suggested: “If a mom has a birth plan, feeding should be part of that, so they know what your intention is.”

Influence and support of worksites

Focus group and interview participants were asked to share their experiences with going back to work when their baby is under one year old.

Worksite influence on infant feeding

Many stay-at-home mothers said infant feeding influenced their decision to stay home; most wanted to be able to breastfeed. In comparison, mothers who returned to work generally did not consider infant feeding a factor in their decision to go back to work.

Additionally, the decision to return to work or to stay home did not have a significant influence on mothers’ decisions about how to feed their infants. Most mothers reported that either their initial infant feeding plans were maintained or other influences, not their employment, led them to switch to formula. In many cases, mothers were firm in their infant feeding choices, and committed to making their feeding choice and employment work together.

However, there was a group of mothers who reported that going back to work was a catalyst for them to formula feed their babies, because formula was more convenient for them and their childcare providers.

Worksite support for infant feeding

Mothers discussed their experience with workplace support for their breastfeeding efforts, and ways in which workplaces could better support infant feeding efforts.

- **Formal policies.** Many of the participating women could not identify a formal policy in place in their worksites pertaining to pumping breast milk. Some women did report their workplaces had policies or “rules” in place around providing space or time for pumping, though the degree these policies were enforced varied.
- **Space.** The majority of women who were feeding their infant breast milk felt that not only having a space to pump, but a comfortable one was important. Some women reported their worksite did not have an adequate space, and they had to use a restroom, an unlocked room, their car, or someone else’s office. This prevented some women from continuing to feed their infants breast milk.
- **Time.** Participants said time for pumping and adequate work coverage during breaks was important for continuing to breastfeed. Many women felt their jobs were not conducive to or supportive of taking time for pumping; a couple of women even feared that taking time during the day to pump would threaten their jobs. However, some women’s worksites provided extra or lengthened breaks throughout the day.
- **Storage.** A less common worksite support that women requested was storage for breast milk. Some women had a refrigerator available to store their breast milk after pumping, but others used a public refrigerator.
- **Emotional support.** Many mothers discussed that without emotional support from their supervisor and co-workers, having space and time available was not sufficient.

Child care support for infant feeding

Overall, mothers felt their child care providers did not influence their decision about infant feeding either because they were firm about their choices and expected child care providers to comply, or their child care providers were already accommodating enough.

However, many mothers were able to identify important ways that providers can support parents’ infant feeding decisions. Some child care professionals provide information about the baby’s feeding to mothers, which was appreciated. Mothers also discussed the importance of child care providers being responsive to them and their child. Some mothers reported they expect child care providers to do things as requested and respond to changes as needed.

Social influences and support

All but two interview respondents said they felt supported in their decision on how to feed their baby. The following people were mentioned as being supportive (in order of frequency):

- **Partners** (spouses or boyfriends). Husbands and boyfriends were the most common source of support. Many mothers mentioned that their partners were supportive of whatever infant feeding choice they made.
- **Mothers.** Respondents received advice and support from their mothers, many of whom had also breastfed. Respondents also found it supportive when their mothers didn't make them feel bad for switching to formula.
- **Other family members** (sisters, cousins, aunts, grandparents). Family members supported respondents by providing encouragement or advice when breastfeeding was challenging. They also backed women who switched to formula, as well.
- **Friends.** Respondents were able to talk to their friends about the challenges they had feeding their babies.
- **The baby's father and his family.** Even when respondents were not partnered with their baby's father, they received support from the fathers. In some cases, fathers encouraged mothers to breastfeed because they believed that was best for their child.
- **Women, Infants, and Children (WIC) program.** The WIC program provided information and resources to women on both breastfeeding and formula. In some cases, this information and support was provided in the absence of information from health care providers.

A few women noted that not everyone was supportive. The public, in general, was seen as unsupportive, because there was a lack of space for breastfeeding or pumping in many public spaces. Some were not supported by family, who wanted to be able to feed their new family member themselves, or had concerns about the immodesty of breastfeeding.

Infant feeding among specific populations

In many areas women participating in the population specific focus groups and interviews had very similar thoughts as other mothers participating in this assessment. Most cited the health benefits of breastfeeding, yet the convenience of formula. Many also received materials from their health care providers on breastfeeding, but were most influenced by their social networks. Many also accessed home visiting services from various providers,

including public health nurses, WIC staff, lactation consultants, or community-based programs.

Many of the stay-at-home mothers chose to stay home in order to breastfeed. Like other working mothers, those in the cultural populations need supports to successfully breastfeed while working, including a space to pump and store breast milk, as well as appropriately spaced breaks and adequate time.

Below are the areas of differences between the specific populations assessed during this study.

Native American women

Native American women noted that breastfeeding provides health benefits for the baby and the mother, is less expensive than formula, facilitates mother and baby bonding, and is traditional for many American Indians. Formula feeding was perceived to lead to faster weight gain, be more convenient, provide more independence, and be the best option for women who are on medications or abuse drugs.

A smaller proportion of Native American women planned to breastfeed than mothers in the assessment overall. Those that chose to formula feed were concerned about being able to sustain breastfeeding when they went back to work, or had tried breastfeeding with previous children and felt uncomfortable doing so.

Like many of the women, Native American women received written information from their health care providers, but it had little influence on their decision. Many received support from local tribal public health departments and WIC offices. Most were also supported by friends and family, though a few noted that their partners discouraged breastfeeding due to concerns about “exposing yourself.”

Many of the Native American mothers were unemployed or stay-at-home parents. Several who chose to stay at home did so in order to continue breastfeeding. Those that returned to work were largely supported by their employer.

Latina women

Latina women noted that breastfeeding provides health benefits to the baby, but also is “natural,” and contributes to mother and baby bonding. Some Latina mothers were concerned that formula would adversely affect their baby. Others noted that formula provided more independence to mothers.

Latina women received written materials and videos from their health care providers. Some, however, did not receive anything, and felt this was because they already had children. Many mentioned receiving home visits from nurses, lactation consultants, midwives, and WIC staff, who often encouraged breastfeeding. Community-based organizations also provided information and classes. Overall, many Latina mothers felt that many people in the Latina community breastfed, so there is a supportive environment for breastfeeding mothers. They also received support from friends, family and partners.

Most chose to be stay-at-home parents in order to adequately care for their children. While some of the working Latina mothers felt supported by their employers, several feared losing their job if they requested too many accommodations to pump. As a result, they switched to formula or pumped under very uncomfortable situations.

Somali women

The Somali women also noted that breastfeeding has health benefits for the baby and contributes to bonding. Many also felt it was easier than formula. Formula feeding was seen as beneficial because women can be more independent, and other family members can help with feeding. Formula feeding also enabled women to gauge how much their baby was eating, and addressed mothers' modesty concerns.

Most of the Somali mothers interviewed planned to breastfeed exclusively or in combination with formula, either because of the health benefits, the expense of formula, or for cultural reasons stated in the Qur'an.

While many got written information on infant feeding from their health care providers, some only received it in English. Others received videos or were able to access classes, which were helpful. Home visits from professionals were also helpful for many. Several had concerns about switching to formula when they felt they could no longer breastfeed, as they had little or no information about what is in it or how it is made. Somali women received support from their own mothers, spouses and relatives on breastfeeding.

Most of the Somali mothers chose to stay-at-home in order to breastfeed. Working Somali mothers had similar struggles as other mothers, with some receiving support from employers, while others reported not being allowed to pump at work.

Hmong women

Only one focus group was held with Hmong women so data are limited. These women felt breastfeeding was cheaper and contributed to mother and child bonding, though few mentioned the health benefits. However, they also felt that formula feeding was easier.

They received little information from their health care providers on infant feeding; most of it was written. This information did not have much influence on Hmong mothers' decision whether to breastfeed. Some felt the Hmong elders discouraged breastfeeding, and others were overwhelmed when many friends and family members offered their own opinion about whether they should breastfeed. The pressure from health care providers, WIC staff, and family and friends to breastfeed was stressful for some Hmong women.

Like other mothers, Hmong mothers had varied experiences with their worksites. Some noted that their worksites are “very supportive” and provide a space for mothers to pump. Some prepared to go back to work by freezing breast milk.

Women with a high school education or less

Women with a high school education or less perceived breastfeeding to be more convenient than formula, and provide health benefits for their baby. In contrast, they felt formula feeding contributed to faster weight gain, allowed family members to help, and was less “embarrassing” than breastfeeding.

About a third planned to formula feed for mixed reasons. One had breastfed her older children and had a bad experience; a few were on medications and were worried about the impact of that on their babies; and one initiated formula feeding because she was looking for a job.

Many lower-educated mothers received written materials from their health care providers, though some do not recall receiving anything. Others went to classes or asked their health care providers questions. Most were connected with WIC and received helpful information from the WIC staff, both prenatally and postpartum. Some felt the hospital nurses were “too pushy” about breastfeeding. They felt supported by their friends and family; and some noted their partners or the baby’s father encouraged breastfeeding because he felt that was best for his child.

Many of the lower-educated mothers who returned to work started or switched to formula. A few had part-time jobs or jobs with varying schedules (e.g., personal care attendant) that made it more convenient for them to pump. Others combined formula with breast milk.

Recommendations

The Minnesota Department of Health’s goal is to improve the health and well being of mothers and infants in Minnesota by encouraging and supporting breastfeeding as the preferred infant feeding practice. The following summary and recommendations provide important guidance to Minnesota health care systems, employers and government agencies for how they can create supportive environments and systems that encourage

new mothers to initiate breastfeeding at birth, and then continue breastfeeding during the first year of their infant's life, whether they return to work or not.

For the health care system

The health care system supports and provides information on breastfeeding to mothers before and after their baby is born, and helps mothers breastfeed after delivery. The following recommendations are aimed to help the health care system build on these supports and address the challenges women face in accessing adequate information or addressing problems when breastfeeding.

- **Use multiple methods and mediums to share breastfeeding information with women.** Much of the information women received was written. Health professionals should also provide information in other multimedia contexts. One-on-one conversations with women about breastfeeding can be effective, as well as sending women home with videos, DVDs, and referrals to classes. Although medical science shows that breastfeeding is the healthiest infant feeding practice, some mothers still expressed interest in receiving more information about formula, which may help them make a decision about breastfeeding.
- **Ensure information is culturally-appropriate.** Any materials provided, including written or visual, should be culturally-appropriate, and provided in mothers' primary language. Some women, particularly those in several of the cultural communities had concerns about breastfeeding being immodest or physically revealing. Health care providers can address this by discussing ways to maintain modesty when breastfeeding.
- **Expand information to include logistics of breastfeeding.** Information provided to women should include details on the logistics of how to breastfeed, and how to address difficulties that may arise.
- **Talk about breastfeeding early.** Given women may make their decision about whether to breastfeed early on or even before their pregnancy it is important to start talking to pregnant women about their infant feeding options at their first prenatal appointments.
- **Include feeding as part of the birth plan.** Including feeding in women's birth plans ensures women think about infant feeding prior to the birth, and that hospital staff are aware and can honor women's infant feeding intentions.

For worksites

Women are supported in breastfeeding by their worksites when a private space to pump and store breast milk are provided, they are given adequate time to pump, and when supervisors and coworkers are supportive, and make reasonable accommodations for them to pump.

- **Provide facilities for breast milk pumping and storage.** Though a dedicated lactation room is ideal, a space with a lock and electricity is necessary to ensure a woman's privacy and ability to operate a pump. Women also need a secure and sanitary place to store pumped milk.
- **Dedicate a staff member to support women.** Women also need assistance accessing lactation rooms and milk storage space, as well as continued support from their employers. Human resources or another qualified staff member should meet with every woman prior to her delivery to discuss what space, storage and time accommodations she needs. This person should be outside a woman's work area, so women feel open to discuss their needs without it impacting her employment or relationships with her supervisor or co-workers, and the person should initiate the conversation with her, as not all women will ask for what they need.

For government

Social networks provide women with significant support and influence many women's decision about whether to breastfeed. Many mothers persevere through the challenges of breastfeeding because they have a strong social network supporting them. Conversely, friends and family can be a challenge to breastfeeding when they express their opinion that a mother should not breastfeed. Being in public places without private spaces is also a challenge to breastfeeding. To help the state build a supportive environment for breastfeeding, government agencies should:

- **Develop a public awareness campaign.** A larger public awareness campaign can help educate Minnesotans about the benefits of breastfeeding, so the public and women's social networks will create environments that are more supportive of breastfeeding mothers.
- **Increase awareness of the benefits of breastfeeding in cultural communities.** Breastfeeding promotion also needs to be extended to cultural communities using effective education materials. Work with cultural leaders to develop media messages that are culturally appropriate for every community in Minnesota, and promote messages in multiple languages.

- **Develop or expand peer support networks for breastfeeding.** Many mothers reported how helpful it was to talk to other moms about their breastfeeding experiences. By building on existing peer support networks, new breastfeeding mothers would have someone to turn to when they are struggling.
- **Educate worksites on existing state breastfeeding policies and how to implement them.** Public health departments could educate worksites on existing federal and state laws regarding breastfeeding, and assist employers in developing a system to implement policies and provide of support to employees who are breastfeeding.

Introduction

Background

For the health of babies and mothers, health experts recommend women exclusively breastfeed their babies for the first six months, and continue breastfeeding through 1 year of age, or longer. In Minnesota, 80 percent of babies born in 2006 were ever breastfed, 52 percent were breastfed for six months or longer (15% exclusively), and 25 percent were breastfed for 12 months or longer.¹

The Minnesota Department of Health's Physical Activity and Nutrition (PAN) Unit and Women, Infants and Children (WIC) Program commissioned this assessment to gather perspectives from a diverse cross section of mothers of infant children on the supports for and challenges of breastfeeding infants. Their objectives were to better understand: 1) the experiences of a diverse population of women in terms of breastfeeding support, especially in health care settings and within women's worksites; 2) the successes and failures in prenatal and postnatal health care settings regarding breastfeeding promotion and support; and 3) what facilitates breastfeeding and what barriers are encountered when women return to work. The results will be used to assist MDH in promoting a supportive state environment that increase mothers' likelihood of breastfeeding.

For this assessment, MDH partnered with Wilder Research to conduct focus groups and interviews with mothers from diverse populations. Qualitative research methods were best suited for MDH's objectives, as interviews and focus groups gather descriptive narratives of women's experiences, rather than numeric rates.

Research methods

Wilder Research worked with MDH staff and members of the Minnesota Breastfeeding Coalition (MBC) to develop questions for the focus groups and interviews. Due to the personal nature and sensitivity of breastfeeding, the focus groups questions focused on the environmental conditions and social factors surrounding breastfeeding support and barriers, whereas the interviews centered more on women's personal values, beliefs, and experiences about breastfeeding (see appendices for protocols).

Wilder Research also developed a sampling strategy in partnership with MDH and MBC. MDH was interested in a diverse cross-section of mothers with infants ages 6 weeks to 12

¹ National Immunization Survey, Centers for Disease Control and Prevention, Department of Health and Human Services. www.cdc.gov/breastfeeding/data/nis_data/. Data accessed on June 20, 2010.

months who had given birth in a hospital, including those of various economic means and living in various geographic areas. They also chose to target four cultural communities: Native American, Somali, Latina, and Hmong women.

Wilder Research staff created flyers to recruit participants, and translated both the protocols (questions), and recruitment materials into Somali, Hmong and Spanish. Wilder Research then worked with MDH and MBC to identify agencies and organizations that could assist with recruiting potential participants and host focus groups. Depending on each organization’s capacity, either their staff recruited participants directly, or they advertised the group and interested participants called the Wilder Research Survey Center to register. In total, Wilder Research staff conducted 12 focus groups (see Figure 1 below).

1. Description of completed focus groups

Group #	Location	Education level (proxy for income)	Race/ethnicity
1	St. Paul	Mixed	Mixed
2	Robbinsdale	High	White
3	Rochester	Mixed	White
4	Cambridge	Low	White
5	St. Paul	Low	Hmong
6	Willmar	Mixed (primarily low)	Latina
7	St. Paul	Unknown	Latina
8	Rochester	Low	Somali
9	Minneapolis	Low	Somali
10	Leech Lake	Mixed (primarily low)	Native
11	Mille Lacs	Low	Native
12	Minneapolis	Low	Native

Wilder Research, MDH and MBC also posted flyers recruiting women for the interviews at various organizations throughout the state. Women then called Wilder Research to participate in the interviews over the phone. Potential participants were first asked a few screening questions to ensure their eligibility. Eighty-two women participated in the interviews. Both focus group and interview participants received \$30 Target gift cards as a thank you.

Characteristics of respondents

Most of the women, including both focus group and interview participants, were between 18 and 34 years old, though a larger proportion of the focus group participants were younger (18-24). The focus groups also included more women of color (67%), largely because community organizations hosted groups specifically targeting certain cultural populations. In comparison, 59 percent of the interview respondents were white. A little over 40 percent of participants were stay-at-home parents; 20 percent were working full-time; and 15-17 percent were working part-time. The focus groups drew more women without high school diplomas than the interviews (31% vs. 19%), whereas a larger proportion of the interviewees had college degrees or higher (36% vs. 20%). That is, women with a higher level of education were more likely to call in for an interview than attend a focus group. Over half the focus group participants were from greater Minnesota. Over two-thirds (68%) of the interviewees were in the Twin Cities. Participating women had between 1 and 11 children, with most having 1 or 2.

2. Description of respondents

	Focus groups (N=95)		Interviews (N=82)	
	Number	Percent	Number	Percent
Age				
18-24	26	30%	17	21%
25-29	25	28%	27	33%
30-34	24	27%	26	32%
35-39	9	10%	9	11%
40-44	3	3%	1	1%
45 or older	1	1%	1	1%
Race/ethnicity				
White/Caucasian	31	33%	48	59%
Native American	17	18%	15	19%
African American	14	15%	11	14%
Hispanic/Latina	20	21%	4	5%
Asian/Asian American	9	10%	2	2%
African	5	5%	3	4%
Other	3	3%	0	0%

Note: Somali women identified themselves as African or African American. Percentages may not equal 100 due to rounding.

2. Description of respondents (continued)

	Focus groups (N=95)		Interviews (N=82)	
	Number	Percent	Number	Percent
Employment status				
Stay-at-home parent	35	41%	35	43%
Working full time	17	20%	16	20%
Working part time	15	17%	12	15%
Unemployed, seeking work	12	14%	9	11%
Other (student, self-employed, or care for family member full-time)	5	6%	5	6%
On medical (maternity) leave	2	2%	4	5%
Education level				
Some high school or lower	26	31%	15	19%
High school graduate or GED	20	24%	25	31%
Some college	13	15%	6	8%
2 year degree or technical college	9	11%	6	8%
College graduate (BA, BS)	10	12%	18	23%
Post-graduate work or professional school	7	8%	10	13%
Geography (based on location of focus group or interviewee's county of residence)				
Twin Cities	46	49%	53	68%
Southern MN	31	33%	9	12%
Central MN	13	14%	9	12%
Northern MN	5	5%	7	9%
Number of children				
Range		1-8		1-11
Average (median)		2		2
Mode (most frequent)		1		1

Note: Somali women identified themselves as African or African American. Percentages may not equal 100 due to rounding.

Findings

Perceived knowledge of infant feeding

During the focus groups, mothers were asked to list what they believed to be the benefits of breastfeeding and the benefits of formula feeding. Figure 3 gives an overview of respondents' perceived knowledge of the benefits of breast and formula feeding.

3. Overview of respondents' perceived knowledge of the benefits of breast and formula feeding

Breastfeeding	Formula feeding
Health benefits	Convenience
Baby sick less often/fewer ear infections	Easier for working moms
Baby gains weight better	Less stress for mom
Diapers are less smelly/less gas	Back-up to breast milk
Higher IQ/brain development	Father and others can feed baby
Build baby's immunity/fewer allergies	Babies sleep longer/eat less often
Breast milk is "sterile"	Comfort
More vitamins and minerals	Don't expose/less public stigma
Weight loss and breast cancer prevention for mother	Freedom/can do more while baby is eating
Bonding	Easier when teeth come in
Feel connected/bond with baby	Easier after caesarian section
Convenience	No leaking
Convenience milk is always available	Health benefits
Don't have to prepare or wash bottles	Has supplements (vitamins and minerals)
Bottles with breast milk can stay out longer	Formulas in the US are safe
Expense	Baby grows faster
Less expensive	Control over quantity
No wasted water or formula if the baby doesn't finish bottle	Can tell how much baby is eating / easier to measure

Perceived knowledge of breastfeeding

Mothers perceived the primary benefits of breastfeeding to be: the health benefits, emotional bonding, convenience and expense (or lack of) associated with breastfeeding.

- **Health benefits.** The most common benefit mentioned by mothers were the health benefits, both for mother and child. Most of the mothers identified general health benefits of breastfeeding, saying “it’s better for the baby” or “it’s healthier than formula.” Some mothers also described more specific health benefits for the baby, including: better immunity, more vitamins and minerals, fewer allergies, easier digestion, better weight gain and growth, and increased cognitive development. Mothers discussed the health benefit of breastfeeding in maintaining their own weight, as well.
- **Emotional bonding.** In terms of emotional benefits, mothers emphasized the bonding that breastfeeding provides, and how this bond is particularly special because it can only occur between mother and child. One mother described the experience of breastfeeding as “precious because you feel a connection with your baby, it is very beautiful.”
- **Convenience.** Many mothers also felt that breastfeeding was more convenient than formula feeding in some ways. They described the benefits of not having bottles to buy, prepare, clean, and keep track of and of always having a food source available for the baby.
- **Expense.** Mothers also discussed the cost benefits of breastfeeding because formula can be expensive and breast milk is free.

Perceived knowledge of formula feeding

When describing the benefits of formula feeding, convenience was the most common benefit cited. Some mothers also identified increased personal comfort, health benefits of formula, and greater control over feeding amounts with formula. Some of the perceived benefits of formula are actually benefits of using a bottle to feed, rather than the formula itself.

- **Convenience.** Most of the focus group participants identified ways in which formula feeding is more convenient than breastfeeding. Many mothers felt formula feeding is more convenient and less “embarrassing” in public. Mothers also felt that formula feeding was easier when they worked or when other people (e.g., their partners or parents) took care of their children. One mother felt that formula feeding allowed others to bond with the baby during feeding. Similarly, mothers said formula feeding

gave them more independence and more free time to take care of other household tasks. Finally, mothers felt that formula feeding kept their babies full longer and allowed their infants to sleep more at night.

- **Comfort.** In addition to being more convenient, mothers also felt that formula feeding tended to be more comfortable than breastfeeding. Mothers described how breastfeeding can be painful at times, especially when children develop teeth. Others felt it was difficult to get up to feed after having a caesarean section. They also said that breastfeeding can be “messy” and there can be “leaks” that make breastfeeding less comfortable than formula feeding.
- **Health benefits.** Some mothers thought there were health benefits of formula, including more vitamins and minerals, and faster growth of the infant. A couple of mothers also provided scenarios in which breastfeeding could be unsafe for children, including if the mother has a health condition, is on pain medication, drinks alcohol, or uses drugs.
- **Control over quantity.** Many mothers expressed concerns over their lack of control or knowledge of the amount of food their babies are receiving while breastfeeding. They feared under-feeding infants because of this lack of control. Mothers felt that formula feeding allowed them to monitor the amount of food their babies received, and ensure it was adequate. One mother told a story about her child being under-fed and developing anemia when she breastfed exclusively. Some mothers felt this issue of quantity control was best resolved by supplementing breastfeeding with formula.

Infant feeding plan and influences

Before their babies were born, 75 percent of the women interviewed planned to breastfeed exclusively, and another 9 percent planned to breastfeed in combination with formula. Many planned to breastfeed because of the health benefits for both the baby and themselves. Some cited the fact that it was “the natural way.” Mothers were influenced by family and friends, who had breastfed. One noted that “seeing other kids breastfed” influenced her. Several had younger children and either had success with breastfeeding previously, or had not breastfed before and wanted to try it. One woman reported she “tried breastfeeding with my first two and I wasn't able to do it for very long so I was determined to succeed this time.” A few others were influenced by doctors or the WIC staff, who encouraged breastfeeding.

Almost all the mothers that planned to breastfeed initially started feeding their babies breast milk. Only one woman who planned to formula feed initiated breastfeeding. The few that planned to, but didn't either experienced difficulty latching or were on pain medications

after their birth that they did not want to expose to their babies. Several introduced formula later; they reported that they didn't like breastfeeding, they were not producing enough milk, breastfeeding was uncomfortable or painful, the baby started biting, the baby was lactose intolerant, breastfeeding took too much time, the baby wasn't latching or stopped drinking the breast milk, or the mother couldn't eat enough calories to support adequate milk production. Several introduced formula when they returned to work.

Those that planned to formula feed did so for the following reasons: they had a bad experience breastfeeding their other children, felt uncomfortable breastfeeding, were on medications that did not allow them to breastfeed, or wanted others to be able to help them feed the baby. One mother said, "First kid, I tried to breastfeed but my baby didn't seem to be getting enough milk so with [this baby], I decided to formula feed from the start."

The women that planned to feed their babies a combination of breast milk and formula made that decision because they wanted the flexibility of formula and the health benefits of breast milk: "You don't always have time to breastfeed, so I decided to do combination so she can benefit from both." These women largely started nursing and introduced formula later.

At the time of their participation in the focus group or interviews, 56 percent were breastfeeding, either exclusively or in combination with formula or solids. More mothers with older infants (over 6 months, up to one year in age) were breastfeeding (58%) than those with infants six months or younger (43%).

4. How mothers are currently feeding their babies

	6 months or younger (N=77)	Over 6 months, up to 12 months (N=90)	Total (N=167)
Breastfeeding	39%	48%	44%
Formula feeding	47%	38%	42%
Both breastfeeding and formula	14%	10%	12%
Other (solids, milk, etc)	0%	4%	2%

Knowledge and influence of health care providers

Prenatally

Respondents were asked about the types and sources of information they received from their health care providers (i.e., doctor, physician's assistant, midwife, clinic nurse, public health nurse, home care nurse, or doula) on infant feeding while they were pregnant. The following were the most common types of infant feeding information respondents reported receiving from health care providers during their pregnancy (in order of frequency):

- **Literature.** Many respondents mentioned receiving written materials from their doctors, midwives, nurses or doulas. included pamphlets on the benefits of breastfeeding, books and magazines on caring for infants, and brochures on using formula. One woman reported getting a “welcome bag for formula and breastfeeding. It came with: basic info, books, formula, breastfeeding pros and cons, pamphlets, nursing pads, and formula samples.” While some felt this written information was useful, others had already either made their decision to breast or formula feed and did not look at the literature, or did not find the literature helpful. Some said, “the pamphlets did not give me enough information,” or they were “not so helpful since I didn't understand the English language.”
- **Verbal advice.** Some mothers reported talking to their health care providers about infant feeding during their prenatal appointments. Others talked to public health nurses during home visits or WIC staff. One reported that her health insurance company had a nurse practitioner call to talk to her about breastfeeding. The amount of conversation about infant feeding varied, as did the content of the conversations. Health care providers tended to use these approaches: 1) encourage mothers to breastfeed; 2) ask mothers what their plans were and provide information based on their plans; or 3) wait for women to ask questions and respond based on their questions.
- **No prenatal information.** Several respondents reported they did not receive any information on infant feeding from their health care providers. While some mothers reported they had other children and did not need information, others simply reported “they didn't give me anything.”
- **Classes.** A few mothers reported attending classes on infant feeding, including parenting, child birthing, and specific breastfeeding classes. Their health care providers referred them to these classes, held in the same building as their clinic or in community centers. Mothers reported the classes showed videos on how to breastfeed, provided pumps, and discussed the benefits of breastfeeding.

- **Other sources of information.** Several mothers reported learning about infant feeding from friends and family, or finding their own information on breastfeeding. As one mother said, “my mother and grandmother told me [breastfeeding] was the best thing to do.” Mothers also looked at websites and read books.

In hospital

Mothers’ received a variety of types of information and support on infant feeding while in the hospital after the delivery of their babies.

- **Literature.** Similar to the information they received prenatally, many mothers received pamphlets and books while they were in the hospital. Some reported receiving very general information about breastfeeding, while others reported receiving specific information on: feeding schedules, signs of hunger, types of formula, phone numbers for follow-up questions, common breastfeeding challenges and solutions, do’s and don’ts of infant feeding, how to store milk, and how to clean bottles. Again, the helpfulness of this information varied. Some mothers just put all the materials away and took them home without reading them. One person noted, the printed information “doesn’t influence you much, you learn from your experience.”
- **Hands on help.** Some women reported receiving hands on help from nurses or lactation consultants during their hospital stay. Some nurses pushed the baby right up to their breast to help them start breastfeeding. Lactation consultants showed mothers how to breastfeed. Most felt this was very helpful: “The lactation specialists were very good. They came and checked on me and helped me out.” A few did not. One person, in particular, felt the lactation consultant was “too pushy,” and made breastfeeding “feel harder than it actually was.”
- **No information or training.** Some mothers reported they did not receive any information from the hospital staff: “With the first [baby] they didn’t ask me anything.” Others felt the nurses were encouraging breastfeeding but were not available to help them breastfeed: “The nurses pushed breastfeeding, but no one showed me how.” A few had very negative experiences with the hospital staff: “I received information packets, but not a lot of support from health care providers.”
- **Encouraged to breastfeed.** Some women reported that nurses, and some doctors, encouraged breastfeeding in the hospital. One woman noted that the “pediatrician in the hospital emphasized breastfeeding.” While many were not bothered by this, some felt pressured: “pressure to breastfeed exists, but it doesn’t always work out that way.”
- **Formula supplements and samples.** Many women said they received formula samples at the hospital. Some, particularly those that were breastfeeding, felt the

nurses pressured them to give their newborns formula before they left the hospital. One woman said, “The nurse wanted the baby to have a bottle so he would have a bowel movement before we went home.” In addition, several reported the nurses or lactation consultants encouraged them to supplement breastfeeding with formula: “the lactation consultant said I could do both and it would be OK. So I breastfeed and supplement with formula.” Women who were formula feeding, however, were grateful for the formula samples. One woman said, “the hospital helped me out with formula until I could get WIC.”

- **Hospital practices.** A few women noted that nurses encouraged skin-to-skin contact while they were in the hospital. Some thought this was helpful for initiating breastfeeding. One woman noted, however, that “it was weird for [the nurse] to touch me.” Few women mentioned rooming-in. A few babies needed to be in the nursery due to illness. One mother noted, “At the hospital my baby was always in the room. I made the decision to breastfeed so [the baby] could be close to me.” Mothers who did not mention rooming-in may simply not have felt it was significant to their feeding decision.

Postpartum

The following types of infant feeding assistance were also provided to mothers after their babies were born and they returned home from the hospital:

- **Lactation consultant.** Some women reported receiving assistance from a lactation consultant after they returned home. They either received referrals from their doctors or set up appointments while in the hospital: “I had questions at the first appointment after my baby was born and they set me up with a lactation consultant.” However, not all had positive experiences: “I had an appointment set up with a lactation consultant, but she was two weeks late in showing up.”
- **Nursing supplies.** A few mothers also reported receiving pumps, nipple shields and other supplies through their hospital or insurance companies, which helped them breastfeed. A good quality pump was especially important for mothers who were planning to return to work: “a good pump was the only reason I was able to continue [breastfeeding].”
- **Nurse home visits and phone calls.** Mothers reported receiving home visits from nurses after they went home from the hospital. This included nurses associated with their health care providers, WIC, and other community home visiting programs. In some cases, the home visiting nurses brought nursing supplies, such as pads and pumps, and helped mothers breastfeed. Several also reported talking to nurses over the phone to get help breastfeeding.

- **Pediatrician visits.** Some mothers reported being able to ask a lot of questions at their babies' first doctor's appointments and get assistance with feeding: "I had a doctor's appointment when I was two weeks post-partum and that was reassuring."

Influence of information from health care providers

Most women felt that the information they received from their health care providers did not influence their decision whether to breastfeed. Many said, "I had my mind made up so it didn't change my mind." This included both women who had decided to breastfeed and women who decided to formula feed. Some had other children and had already made a decision based on that previous experience; a few others said they were heavily influenced by their social networks (mothers, sisters and friends). As one woman noted, "I always heard that breastfeeding was very healthy for the child and my decision to breastfeed was made before I gave birth."

Some, however, noted that their healthcare provider affirmed their decision to breastfeed: "It just reinforced my decision to breastfeed; it was the best option for the baby." Others reported that additional information was helpful and supportive even if it did not influence their decision: "The education really encouraged me and helped me to stay faithful to keep going, and it worked."

Finally, a few reported their health care providers influenced their decision on how to feed their infant. For some, the information from their health care providers encouraged them to breastfeed: "The information given to me influenced my decision to breastfeed."

Support from health care providers

Many women felt supported by their health care providers in their feeding decisions. "We were fully supported by the hospital staff," reported one mother. Many noted that their health care providers were supportive of whatever decision they made: "they make you feel either way is fine, breastfeeding or formula." These mothers noted that their doctors and nurses provided advice, but did not "steer them in one direction."

Breastfeeding mothers felt supported by health care professionals in the following ways: provided lactation consultants when needed, were open to questions, helped troubleshoot when problems arose, and provided resources on who to contact for additional help with breastfeeding. One mother who had difficulty getting her baby to latch on said she "continued to try because my healthcare provider supported me breastfeeding."

Several mothers that initiated formula feeding also felt supported by their health care providers. They reported the hospital provided formula samples and suggestions that were affordable, and "did not say anything negative" if they didn't breastfeed.

Others felt their health care providers were unsupportive of their infant feeding decision. Some reported their health care providers either pressured them to breastfeed when they didn't want to or pressured to supplement with formula when they wanted to breastfeed exclusively. One woman even switched pediatricians because the first doctor "wanted to supplement [formula] a lot more." Others simply did not get any help with nursing: "Nobody asked me anything. With the first one, no help with nursing – no one asked if I was even feeding her." A few women whose babies were initially in the Neonatal Intensive Care Unit reported special challenges in deciding how to feed their babies; the doctors and nurses were very particular about what and when their babies were fed.

The women offered the following suggestions on how health care providers can better support new mothers in relation to infant feeding:

- **More education on the logistics of breastfeeding.** While many mothers received a lot of information about the benefits of breastfeeding, they felt they could use more information on how to do it. Specifically mothers suggested more education on: what foods to eat and the importance of drinking water while breastfeeding, the difficulties of breastfeeding (sore nipples, thrush, clogged ducts, pain and soreness), issues of the baby biting, how to help the baby latch, and why breastfeeding is beneficial. As one woman noted, "It seems they keep the bad information away. There's a lot of 'normal' that's not shared in the wide public." A few mothers were also surprised they had to feed their baby "all the time" and did not know if they should "feed on demand." One woman noted she would have liked "to have spent time not feeding him – just enjoying him."
- **More information on combining breastfeeding and formula.** Mothers reported conflicting information they received about supplementing breast milk with formula. Some were told it was a good idea and others were instructed not to. These mother felt that more complete information on combining breast milk and formula would be helpful.
- **More information on formula.** A few women felt they did not get very much information on formula. Some wanted more information to help them decide whether to breastfeed. Others had decided to formula feed and wanted more information on how to choose an appropriate formula for their baby. For example, one woman wanted more information on "the side effects of formula and how formula is made."
- **A mentor.** Many mothers reported how helpful it was to talk to other moms, including friends and sisters, about their breastfeeding experiences. Some met other mothers through WIC or Early Childhood Family Education. These personal relationships with other mothers who have experience breastfeeding were often

equally, if not more, valuable than the information women received through their providers. One woman suggested pairing new mothers with “breastfeeding buddies” to help them overcome the challenges of breastfeeding. [Note: Minnesota WIC is piloting a breastfeeding peer support program in ten counties.]

- **Include feeding as part of the birth plan.** One woman felt that mothers’ intentions are not always honored and suggested: “If a mom has a birth plan, feeding should be part of that, so they know what your intention is – there should be more support around the original intent.”
- **Sufficient WIC dollars.** Several WIC recipients said the WIC dollars were not sufficient to buy enough formula for the month. They would like their WIC support increased to cover the full cost of formula.

Influence and support of worksites

Focus group and interview participants were asked to share their experiences with worksite influences, supports, and barriers to infant feeding. For the mothers who did not work, the role of infant feeding in their decision to stay home and their perceptions of general worksite supports for infant feeding were collected.

Worksite influence on infant feeding

During the focus groups, mothers who chose to stay home with their infants said infant feeding influenced that decision, whereas mothers who chose to return to work generally did not consider infant feeding a factor. As one mother noted, “My decision not to work was to breastfeed my child.” Additionally, the decision to return to work or to stay home did not appear to have a significant influence on mothers’ decisions about how to feed their infants.

Most mothers reported that either their initial infant feeding plans were maintained or other influences, such as concerns about not producing enough breast milk, led them to change their infant feeding practices, regardless of employment. In many cases, mothers were firm in their infant feeding choices, and committed to making their decisions regarding feeding and employment work together, even though returning to work presented obstacles. One woman described this as “having to carry all the stuff and worrying about how the milk is stored right [is difficult]. Nothing about it is easier, but it's worth it.” When mothers chose to breastfeed, they felt that the health benefits for the child, the decreased costs, and the emotional connection with their infant were important enough to maintain their breastfeeding efforts while working.

However, there was a group of mothers in both the focus groups and the interviews who reported that going back to work was a catalyst for them to formula feed their babies, either exclusively or to supplement breast milk. These mothers felt that formula was more convenient for them and their childcare providers while they were working. One mother described formula feeding as “quicker, faster, and easier” while working and another mother noted that breastfeeding was “too much work [with] no time.” In many of these cases, mothers chose to breastfeed when home with the child, but chose to formula feed while at work. For instance, one mother described that “the caregiver gives [the baby] formula and I breastfeed when I’m there” and another mother noted that “it was nice to take the time to breastfeed after I got home from work.”

Worksite support for infant feeding

In both the focus groups and the interviews, mothers discussed their experience with workplace support for their infant feeding efforts, and ways in which workplaces could better support infant feeding efforts.

- **Formal policies.** When asked about worksite support for infant feeding, many of the participating women could not identify a formal policy in place in their worksites pertaining to pumping breast milk. Some women did report their workplaces had policies or “rules” in place around providing space or time for pumping, though the degree these policies were enforced varied. For example, there was not adequate coverage for job tasks during pumping breaks, or the space provided was uncomfortable or inadequate. One mother shared her experience, “HR provided me with a room, it was an office, and it was really hot in there...I had a key, and I thought it locked on the outside when I went in, but a few times people walked in on me.” Two mothers identified a Minnesota statute that requires worksites to provide a space and time for pumping.
- **Space.** The most common worksite support women identified as having or needing was an adequate lactation space. The majority of women who were feeding their infant breast milk felt that not only having a space, but a comfortable one was important in their efforts. “They have a nursing mother room at work that was very helpful,” was a comment echoed by several women. However, many women felt their worksite did not have an adequate space available. Some women used a restroom, an unlocked room, their car, or someone else’s office for pumping. One mother said she “pumped in the bathroom. There’s no place, except the cold bathroom. It’s hard to get your milk to let down when you are cold, trying to line things up on the sink, run a cord over into a stall.” For some women, the lack of available space prevented them from continuing to feed their infants breast milk.

- **Time.** Participants said time for pumping and adequate work coverage during breaks was important for continuing to breastfeed. While many mothers were given time during the day, it was often unpaid or insufficient. As one woman noted, “you can’t pump on [just] one break; you need to be able to pump at the times the baby would be eating.” Many women felt their jobs were not conducive or supportive of taking time for pumping; a couple of women even feared that taking time during the day to pump would threaten their jobs. However, some women’s worksites provided extra or lengthened breaks throughout the day. One mother said she has “two women bosses” that give her “longer breaks and access to an office or private room in the break office.” A few women also reported their jobs were flexible about the timing of lactation breaks, which they found helpful: “I am able to make my own schedule so I can pump between clients.” In addition, a small number of women were allowed to take breaks to go to where their child was to feed their infant throughout the day.
- **Storage.** A less common worksite support that women requested was storage for breast milk. Some women had a refrigerator available to store their breast milk after pumping, but others that didn’t would like to have a refrigerator or cooler available. “I would like a fridge for nursing mothers, because I don’t think I would like the breast milk to be mixed with everybody’s lunch.” Two women discussed the difficulties they have encountered with storing their breast milk in public refrigerators.
- **Emotional support.** In addition to all of the logistical supports mothers discussed, mothers also felt that emotional support from their supervisor and co-workers was important. Many mothers discussed that without emotional support, having space and time available was not sufficient. If they did not feel supported in their pumping, they had difficulty continuing. Many women felt their supervisors were understanding and supportive of their need to pump breast milk, and some felt that their colleagues encouraged breastfeeding. One woman said “my employers were very supportive, and I appreciated what they did for me. I couldn’t ask for anything more, they were great!”

Worksite support of new parents

In addition to support specifically for infant feeding, participants were also asked how worksites could better support new parents in general.

- **Parental leave.** Focus group participants felt that workplaces could better support parents by providing parental leave that is paid and for longer durations of time. As one woman noted, “You need more than six weeks off. They need to look at insurance costs and savings. Moms are miserable at six weeks post-partum. They’ve had no sleep and aren’t 100 percent there for any one. There’s a much bigger

picture.” Some participants also felt parental leave was important for fathers, saying they would like “more dad time off to help mom.”

- **Sick time.** Mothers also felt that workplaces should be more flexible and supportive with sick time for parents. Participants explained that they are required to take sick time both when their children are sick and when they are sick, which stretches their sick time thin. One participant stated, “Mothers want to be the ones home with the sick kids.”
- **Child care.** Finally, several mothers felt that accessible, affordable child care would be helpful. Mothers argued that on-site or nearby child care would increase productivity by decreasing stress: “Also, they can add child care on-site. That way the employers can obtain more functional employees, because the mother would worry less for her child and be more productive at her work.” They emphasized that the child care would need to be reasonably priced, high quality, and geographically close for maximum benefit.

Child care support for infant feeding

Interview participants were asked about ways which their child care has influenced their infant feeding decisions and about ways that child care providers could better support mothers’ infant feeding choices. Overall, mothers felt that child care providers did not influence their decisions about infant feeding because either they were firm about their choices and expected child care providers to comply or they felt that their child care providers were already accommodating enough. However, many mothers were able to identify important ways that providers can support parents’ infant feeding decisions.

- **Emotional support.** Similar to worksite support, mothers felt that having child care provider support in their infant feeding choices was important. Mothers discussed the importance of child care providers being accommodating and flexible, and in some cases, encouraging. One mother said her child care center has “been super supportive, if I am late, they provide a room for me to breastfeed and they are very understanding.” Several of the mothers had close family, such as parents or siblings, caring for their infant, which may have influenced how they viewed this emotional support.
- **Information.** In addition to providing emotional support, some child care professionals also provided information to mothers. This includes information about their child, such as feeding records or food-related milestones, but it also includes general information, like comparisons between formula brands.
- **Responsiveness.** Finally, mothers discussed the importance of child care providers being responsive to them and their child. Some mothers reported they expect child care

providers to do things as requested and respond to changes as needed, saying “they do what I tell them or plan for them.” Examples of this responsiveness include feeding the baby breast milk only and at appropriate times. Mothers also discussed the need for child care providers to be aware of and responsive to their child’s needs. This may include monitoring feeding and digestive issues, as well as general infant needs.

Social influences and support

All but two interview respondents said they felt supported in their decision on how to feed their baby. The following people were mentioned as being supportive (in order of frequency):

- **Partners** (spouses or boyfriends). Husbands and boyfriends were the most common source of support. Many mothers mentioned that their partners were supportive of whatever decision they made. Breastfeeding mothers said their partners also thought the health benefits were important, and in some cases, helped encourage mothers to continue through the challenges. Partners were also supportive when mothers switched to formula feeding and helped mothers track feeding schedules and solids.
- **Mothers.** Respondents received advice and support from their mothers. Many respondents received advice from their mothers who had also breastfed. Others said their moms respected their decisions because “I am the mom now,” and supported whatever decision they made. Respondents also found it supportive when their mothers didn’t make them feel bad for switching to formula, helped with preparing bottles or feeding, and helped keep track of when the baby last ate. One mother said her mother was the primary care provider, so her mother’s advice was very important. Another respondent had followed her mother’s suggestions with her first child, and it worked, so she asked for help with the second child.
- **Other family members** (sisters, cousins, aunts, grandparents). Family members supported respondents by asking them how they were doing and providing encouragement or advice when breastfeeding was challenging. They also backed women who switched to formula, by supporting this decision as well.
- **Friends.** Respondents were able to talk to their friends about the challenges they had feeding their babies. Friends provided advice on how to successfully breastfeed; and supported women in their decisions, either to continue breastfeeding or to switch to formula. Friends were also supportive by helping prepare bottles or providing a private space to nurse.

- **The baby’s father and his family.** Even when respondents were not partnered with their baby’s father, they received support from the fathers. Fathers and their families supported mothers’ decisions to breastfeed by helping find solutions to problems. In some cases, fathers encouraged mothers to breastfeed because they believed breastfeeding was best for their child. They also helped with formula feeding by preparing bottles, feeding the baby, and keeping track of the feeding schedule.
- **Women, Infants, and Children (WIC) program.** The WIC program provided information and resources to women on both breastfeeding and formula. In some cases, the WIC program provided information and support in the absence of information from health care providers. One mother noted, “In the clinics I went to, they didn’t give me a lot of pamphlets and info in writing. On the other hand, the WIC program gave me a lot of info about different types of nipples in the bottle; they also gave me a list of what to do if I decide to breastfeed.”

Two participants did not feel supported in their decision to breastfeed, yet initially started feeding their baby a combination of breast milk and formula. They did not provide specifics, but said no one supported them after the baby was born.

A few other women who felt supported in general noted that not everyone was supportive. The public, in general, was seen as unsupportive. For example, some mothers specifically mentioned shopping plazas and casinos as not been accommodating for breastfeeding mothers. As one mother described, “when people stare and complain, I feel unsupported and uncomfortable.” Another said her grandmother wanted her to breastfeed and did not support her when she switched to formula. A third reported that “some family members find it difficult when they can’t take care of [the baby] for more than 2-3 hours because I need to [breastfeed] her.” This last respondent found it difficult to “be firm” with her family.

Infant feeding among specific populations

Native American women

Three focus groups were conducted with 14 Native American women, in Minneapolis, Mille Lacs, and Leech Lake. Additionally, 15 interviews were completed with Native women in the Twin Cities and Northern Minnesota. The Native American women participating in the study had lower levels of education and were younger than the overall participants – 66 percent had a high school degree or lower and 66 percent were under 30. Participating mothers had between one and eight children.

Perceived knowledge of the benefits of infant Feeding

Overall, Native American mothers perceived similar benefits to breast and formula feeding as other participating mothers. They believed the health benefits of breastfeeding, such as building immunity in infants, providing antibodies that are not available in formula, and helping babies gain weight more quickly. Breastfeeding also was perceived to be “more sterile” and to have health benefits for the mother, in that a mother’s body “bounces back” by breastfeeding. Many mothers mentioned that breastfeeding facilitates bonding between the mother and child, and is cheaper and more convenient with “no need to prepare or wash bottles.” A few of the mothers also mentioned the idea that breastfeeding “goes back to the more traditional ways” of Native American culture.

Formula feeding was credited with helping babies gain weight faster. Some Native American mothers also felt that formula feeding was a better option if the mother had an infection, or was using alcohol or drugs. Perceived benefits to formula feeding included: formula feeding is more convenient in public, “less messy,” less “painful and tiring,” easier to measure, and leaking is not an issue. Mothers said formula feeding allowed them to be “more independent” and allowed their children to be cared for by others.

Infant feeding plan and influences

Before their babies were born, a smaller proportion (about half) of the Native American women in this study planned to breastfeed exclusively compared to mothers in the study overall (75%). Those that planned to breastfeed cited the health benefits or because it was the traditional, or “natural way” of feeding your baby as reasons for doing so.

Those that planned to formula feed chose not to breastfeed because they were concerned about being able to sustain breastfeeding when they went back to work, had tried

breastfeeding with previous children and felt uncomfortable doing so, or “didn’t want to be tied down for that long.”

After their babies were born, most mothers who planned to breastfeed did. Those that did not try to breastfeed were on pain medication or felt uncomfortable breastfeeding.

Knowledge and influence of health care providers

Native American participants in the study received similar types and sources of information from their health care providers as other mothers in the study. They received pamphlets on breastfeeding, child development, and formula feeding. Similar to the overall results, many stated the content wasn’t always discussed with them: “They haven’t gone over the information [on the pamphlet] and explained it to me. They just gave it to me.” Several said their health care providers did talk to them about infant feeding. For example, they received “advice on nutrition” for producing milk. Some felt their providers left out some of the negative aspects of breastfeeding: “I wish they would have told me it was going to hurt.”

Some mothers received referrals to lactation consultants, though this was primarily for mothers who had trouble breastfeeding. Others were referred to community programs, such as “Health Start.” The Maternal and Child Health (MCH) division staff at the tribal Public Health Departments were very helpful for some mothers: “With the second baby, I had a c-section, but I had support from MCH staff.”

Due to the fact that these women tended to be lower-income, they also received additional information from WIC, both prenatally and postpartum. This included printed materials, as well as visits from WIC staff. Some said the WIC staff encouraged breastfeeding, though others said they also received helpful information about formula from the WIC office.

Many of the Native American participants, regardless of how they decided to feed their infants, had already made a decision regarding how they planned to feed their infant; they reported that information from health care providers did not influence their choice: “I knew I was breastfeeding so it didn’t” influence my decision. Although some of the mothers felt supported in their decisions, others felt their health care provider overemphasized breastfeeding. As one mother pointed out, the health care providers “don’t give you much information for the moms who want to formula feed your baby.”

Influence and support from worksites

Many of the Native American mothers participating were unemployed or stay-at-home parents. Different from other mothers, some Native American mothers chose to stay

home in order to breastfeed. Most mothers that were working felt supported by their worksite in their decision to breastfeed. Through formal or informal policies, they were allocated time and space to pump during the workday. For example, a few women said their worksites had policies that allowed them to take longer breaks and have access to a private space. For example, one mother noted that her worksite has “an office where I could feed her or pump. My employers were very supportive and I appreciated what they did for me. I couldn’t ask for anything more.” Another made an informal arrangement with her supervisor to pump in the restroom.

Participants expressed that having a separate room for mothers to pump and creating formal policies to allow or support pumping or breastfeeding would be useful. One mother stated, “If they have a room for moms, you don’t have to pump or feed in your office or in the bathroom.” Other suggestions included allowing extra breaks for mothers to feed infants where they were being cared for, or permitting caretakers to bring the infants to the worksite so the mother could nurse.

Social influences and support

Overall, most of the Native American participants felt supported in their infant feeding decision. Friends and family members offered support: “My husband, church friends, pediatrician just encouraged me to give my baby the best nutrition possible knowing that breast milk is best, and providing a place to nurse.” Mothers that chose to formula feed also felt that they received support for their choice: “My husband, mother, mother-in-law, friends and family...they support and respect my decision about how to feed my baby by switching from breastfeeding to formula.”

A few mothers, however, felt unsupported in their decision. One of the reasons for discouragement was the issue of modesty. The Native American women most often brought up issues of “covering up” when breastfeeding and found that their partners did not like them breastfeeding in public. One mother pointed out, “Significant others and husbands don’t want you to breastfeed because they consider it to be exposing yourself.” This issue of modesty was more prevalent among Native American mothers than among other mothers in the study.

Latina women

Breastfeeding initiation rates among Latina women have been typically higher than women of non-Hispanic origin. In 2007, 93 percent of Latina mothers reported initiating breastfeeding compared with 84 percent of non-Hispanic mothers.² To better understand the motivations of Latina women, two focus groups were conducted with 19 Latina mothers, one in St. Paul and one in Willmar. Both were conducted in Spanish. The Latina women participating in the study were lower-educated women – only 10 percent had any postsecondary education. Participating mothers had between one and seven children.

Perceived knowledge of infant feeding

Latina participants recognized the benefits of breastfeeding, and believed that it was a “natural” process women were capable of and meant to do. Breastfeeding was perceived as healthier for the baby, in that it strengthened their immune system, “makes them stronger,” and leads to “a higher IQ.” Women also mentioned that breastfeeding helps mothers lose weight. Respondents also acknowledged the bond a mother feels with her baby while feeding: “breastfed children have more attachment to their mothers.”

The Latina focus group participants had strong beliefs about the “naturalness” of breastfeeding, and the unique “opportunity” and “instinct” mothers have to breastfeed. For example, one mother pointed to her breast and stated, “If we have this, it’s for a reason. The breast milk has a purpose.”

Some of the mothers believe bottles would have an adverse effect on their infant’s teeth: “They have side effects in their palate and in their teeth if they use a bottle.” However, formula feeding was credited with giving mothers “more independence,” by allowing others to assist with feeding.

Despite their beliefs, many mothers reported being unable to breastfeed. Some had difficulty expressing enough milk, and often found their infants were unsatisfied, so they supplemented with formula. Formula feeding eased their child’s hunger, and gave the mothers freedom from pumping. One participant mentioned, “When you breastfeed you have to do it often, because they want to eat more frequently.”

² Pregnancy Risk Assessment Monitoring System: CPONDER web-based query system. Centers for Disease Control and Prevention (CDC). Data accessed on April 15, 2010.

Knowledge and influence of health care providers

The Latina mothers received similar types and sources of information on infant feeding as other mothers, including written information on the benefits of breast milk, child development, and nutrition. Some also reported viewing videos on child development, and receiving other resources, through community programs: “You have to watch a video with information about the development of the baby and other types of information, and they give you diapers, formula, and clothes for the baby...they educate you about how to feed your baby and give you ideas and suggestions for when, how and how much the baby should eat.”

Compared to the larger population, more Latina participants received nurse and midwife visits. During these visits, nurses and midwives showed mothers how to breastfeed. As one woman mentioned, “I received instructions from the capable nurses. In the beginning they teach you how to position your baby and how often to feed the baby.” Another participant received information on how to increase her milk flow and on nutrition. The mothers who received visits from a lactation consultant or nurse were generally pleased with their experiences. As one mother stated: “They helped and advised me and asked how it is going with my babies, and I feel like I am receiving very good attention.”

Many of the Latina mothers said their health care providers encouraged them to breastfeed. Regardless of their decision, though, their providers were very supportive. Many noted the health benefits of breastfeeding and the bond they felt with their child was a greater influence on their decision to breastfeed while in the hospital than advice or information provided by health care providers.

Some participants did not feel they received as much attention as other mothers. Women said such things as: “I didn’t get too much information...I don’t know if it is because I already have one child and they assumed I already knew a little bit,” and “I didn’t get a lot of help from the doctor because I felt that they were against my pregnancy because I am a young mom.”

A few Latina mothers mentioned WIC programs and community centers that provided written information, classes, and videos to learn more about infant feeding options. For example, “The nurses from WIC came to my home, visited me, and gave me advice and some gift cards following [up] from the check-ups. [They] call me often and keep in contact with me to see if everything is going well.”

Influence and support from worksite

Most of the Latina mothers were stay-at-home parents, or found it difficult to return to work because they were breastfeeding. Many chose to stay-at-home because of concerns about being able to adequately care for their children. As one mother stated about returning to work, “I feel like I am not going to have enough time to dedicate to my [baby] and [the baby’s] feeding times, and it can also affect the quantity of milk I produce.”

Some of the Latina women felt supported by their employers, others did not speak up for fear of losing their jobs. It is unclear whether the type of employment played a part in their infant feeding decisions (e.g., temporary or full-time, type of industry), but it was a cause of stress and worry for some of the participants. For example, some participants were afraid or embarrassed to speak with their supervisors, as they feared they would lose their jobs if they asked for time to pump. As one mother stated, “It was my choice not to talk to my supervisor because I started through a temp agency, and I was afraid to get fired.”

Social influences and support

Latina women were most heavily influenced by social factors of all the cultural groups participating in the study. Many of the women were surrounded by social environments that support breastfeeding. As one mother mentioned, “in my hometown I saw everybody breastfeeding and I decided that I was going to do the same.”

Friends, relatives, and partners provided support and advice to the Latina participants on their decision to breast or formula feed. One participant’s friend mentioned that their children were healthier and had to visit the hospital less often because they were breastfed. Another friend told a participant that the ability to produce milk was natural, “you have the capacity to produce milk for your baby even if you are working, because that is what we are created for.” Similar to the mothers throughout the study, most of the Latina mothers had already made a decision whether to breast or formula feed before giving birth.

Somali women

Two focus groups were conducted with 20 Somali women, in Minneapolis and Rochester. Both were conducted in Somali. Additionally, 12 interviews were completed with Somali women, primarily in the Twin Cities and Rochester areas. Half the Somali women participating in the study were under 30, and two-thirds had a high school education or less.

Perceived knowledge of infant feeding

Somali women identified similar benefits to breastfeeding as women throughout the study. Many Somali mothers mentioned the health benefits, in that breastfeeding protects infants from disease and prevents illness, and it helps babies grow strong. One participant's health care provider advised her to breastfeed to ward away illness: "My child was born sick, so the doctor advised me to breastfeed to help the sickness go away." One participant also stated that, "Breastfeeding has an extremely positive impact intellectually, physically and mentally."

A few of the mothers mentioned that breastfeeding facilitates an emotional connection between a mother and child. As was discussed, breastfeeding was perceived to "help the child and mother form a relationship." Mothers also felt breastfeeding did not take as much work compared to formula feeding.

The perceived benefits of formula feeding among Somali mothers are that others can assist with feeding, it removes some of the dependence on the mother to feed, and it is less time consuming. Others mentioned that it is easier to gauge how much the baby is eating. Some Somali participants also believed it is "better to give them formula than breastfeeding when in public," due to concerns about modesty.

Infant feeding plans and influences

Most of the Somali mothers interviewed planned to breastfeed exclusively or in combination with formula, and with the exception of one woman who had complications, all started their babies on breast milk. They chose breastfeeding initially because of the health benefits and expense of formula.

A few of the Somali participants mentioned cultural reasons for their infant feeding decision and support. As one mother stated, "The most helpful information I received was from the Qur'an."

Many, however, switched to formula when breast milk was “not enough,” or when her baby stopped taking breast milk. One mother did a combination of both because she thought “it’s best for them to have the benefit of the two.” One mother felt that breastfeeding just isn’t done among Somalis: “It’s a God given law to breastfeed children, it’s healthy, but most Somalis don’t breastfeed.”

Knowledge and influence of health care providers

Like all the mothers participating in the study, the Somali mothers received written information on infant feeding and how to care for an infant. One mother noted receiving “a binder full of things including both English and Somali translated information.” However, another said the written information she received was “not so helpful since I didn’t understand the English language.” Some felt the information was insufficient. As one mother said: “They don’t tell you enough information if things go wrong.” The Somali women, more than others than the study, also wanted more information on formula: “I would like to see what the side effects with formula are and how it’s made. Not exactly knowing what the formula contains makes me doubt it.”

Other participants mentioned watching videos or taking classes on how to care for their infant. One first-time mother found these films very helpful, as they walked her through the process step-by-step. As with the other mothers, some Somali women did not receive any information prenatally or postpartum.

In the hospital, a few Somali mothers received pumps from their health care provider. Another said the nurses took her baby to the nursery, which was confusing for her: “The fact that they wanted to take her away from me right away contradicted the information I was getting from pamphlets on how to breastfeed the child and why it is vital to breastfeed before giving formula. For when a baby is introduced to formula before breast milk, the chances that the baby will refuse [breast milk] is pretty high.”

Many of the first-time Somali mothers had a lactation consultant or nurse visit them in their home to show them how to care for and feed their infant. As one mother expressed: “I really did not know how taking care of a baby was like, so I agreed to have a nurse come along. She showed me how to breastfeed, burp, hold, and rock the baby to sleep. I thought it was very helpful.” Having a person who spoke Somali was important. As one woman stated: “This was my first baby and I needed tons of help, and I am very grateful for everything the government [provided] me with. They trained me on how to take care of the baby in every aspect, and they had sent me a nurse for a whole week straight to help me in my own house. They even sent a person that understood my language, which made life easier.”

The majority of the Somali women interviewed stated that their health care providers did not influence their infant feeding decision, but that they felt supported with their choice. Prior experiences with feeding also influenced their current infant feeding choice: “The one [child] that wasn’t breastfed is not as healthy as the other one, so that’s why I decided to start with breastfeeding.” Many of the mothers had also made a decision regarding infant feeding prior to delivery, and did not consult with others: “I just decided for myself that it was best for the child.” One mother was very adamant that health care providers would not have swayed her decision either way: “I didn’t care what the nurse or doctor told me, I already had my mind made up for breastfeeding.” However, one woman said her health care provider “made me stick to the goal of breastfeeding the baby.”

Influence and support from worksite

Most of the Somali women were stay-at-home parents. Many chose to stay-at-home in order to breastfeed their baby: “My decision not to work was to breastfeed my child.”

Those that did return to work had mixed experiences. Some of the women felt that their employers were accommodating with office space and extra time to pump or breastfeed. For example, one woman’s manager extended her breaks to allow her to “go back to my home and breastfeed my child.”

A few mothers, though, did not receive any extra time to pump or breastfeed. In fact, some mentioned they were not allowed to pump at the worksite. When asked how she dealt with the situation, one mother said she “got rid of as much [breast milk] as possible before leaving the house and dealt with it until I come back home.” Others switched to formula when they returned to work. One woman supplemented with formula because “the baby had to be fed while I was at work, so formula was the only thing [the baby’s caretaker] could feed [the baby] while I was at work.”

Social influences and support

Mothers, partners, older children, and other relatives all provided support for the Somali women interviewed. Most of the participants said that their partners supported them financially and emotionally. One woman said that her spouse believed breastfeeding “was the right thing to do.” Others mentioned that their mothers helped them with feeding and guidance. One participant got advice from other women in her life: “My sister, my friend, and cousin – they give me advice on how to produce more milk – what to eat.” One participant said that her older child provided much help with her infant: “My older child is there to support me with what I need.”

Women with a high school education or less

Women with a high school education or less tend to have lower rates of breastfeeding initiation than women with higher levels of education. In 2007, 90 percent of women with some college education or above report ever feeding their babies breast milk, compared to 73 percent of women with 12 years of education and 78 percent for those with less than a high school education.³ Two focus groups were held targeting lower-educated mothers, one in St. Paul and one in Cambridge. Fourteen women participated in these groups. Additionally, 18 interviews were completed by women without postsecondary education (excluding women of the cultural groups described above).

Perceived knowledge of infant feeding

Participants with less education recognized similar benefits of breastfeeding as other women. They highlighted the health benefits of breastfeeding, including brain development, immunity, and fewer food allergies. Some felt that babies gain weight more rapidly when fed breast milk. Several noted the digestive benefits as well; breastfed babies go through fewer diapers and are less gassy. Breastfeeding was also perceived by some as being more convenient than carrying around bottles.

In terms of formula feeding, several noted it is “not embarrassing,” like breastfeeding. They also felt that babies feed less frequently on formula, but they eat more, and babies gain more weight. In addition, some women felt formula feeding is beneficial because it allows other family members to help out with feeding.

Infant feeding plans and influences

Like women with postsecondary education, many of the mothers with less education chose to breastfeed because of the health benefits, though several also noted the expense of both diapers and formula. As one mother noted, “formula costs are ridiculous – I’d have to spend a whole paycheck on formula!”

About a third planned to formula feed for mixed reasons. One had breastfed her older children and had a bad experience; a few were on medications and were worried about the impact of that on their babies; and one initiated formula feeding because she was looking for a job. “I was trying to get a job and I thought it was going to be easier [to start] using formula.”

³ Pregnancy Risk Assessment Monitoring System: CPONDER web-based query system. Centers for Disease Control and Prevention (CDC). Data accessed on April 15, 2010.

Most initiated breastfeeding, though many did switch to formula. Mothers reported switching to formula because “I dried up,” “it was painful,” or the baby “was losing weight” or “lactose intolerant.”

Knowledge and influence of health care providers

Similar to women throughout the study, women with less education had varied experiences with their health care providers. Several received pamphlets, books or magazines promoting breastfeeding, or they went to classes that discussed infant feeding options. “They told me that breast milk was better. They gave me pamphlets on breast milk versus formula feeding. I went to birth classes and they gave me a lot of information about feeding the baby.” Others asked questions of their health care providers to get more information. Still others reported receiving no information on infant feeding prior to their delivery: “The clinics I went to didn't give me a lot of pamphlets or information in writing.”

After the birth many women received written information, though few could recall the content. One woman explicitly said “I didn't read it. I knew how to raise kids.” Several received offers for home visits from nurses or lactation consultants. Although many women did get visits, some elected not to receive a visit. As one mother described, “a lactation consultant called us during the first week and offered a visit, but it was not needed. I appreciated the call, though.”

Compared to other mothers, some of the mothers in this group described getting more detailed information from their health care providers. For example, one mother said “They told me how to monitor the feeding, how to do it, make sure to switch breasts after a convenient time.” Although some mothers felt they received adequate information, others still felt they would have liked more: “I had a lot of pain and they didn't tell me enough about how the pain would stop after a few days and that it shouldn't hurt if you're doing it right.”

Several received helpful information from the WIC program, both prenatally and postpartum: “WIC gave me charts about infant feeding milestones. Everybody else assumed that because he was my second child I already knew what to do.”

Many of the lower-educated mothers were not influenced by the information they received from their health care providers. One mother said she was “already set on what I was going to do.” Others said it “helped a little bit,” though others said the information discouraged them from breastfeeding. One woman described being more receptive to breastfeeding after she realized her baby was gaining weight, so she “read some books and got the hang of it.”

The level of support mothers received from their health care providers also varied. One mother appreciated her doctor supporting her decision to switch to formula; she said the doctor supported her by “not telling me to breastfeed,” instead reassuring her that her baby “still gets what [the baby] needs from formula milk.”

Influence and support from worksite

Among the group of lower-educated women, about half reported working in the following types of jobs: personal care or nurse’s aide, factory work, day care, cleaning, administrative assistance, waitress or retail. Many either started or switched to formula when they went back to work. For some, this was because of other factors (e.g., the baby stopped taking breast milk, or concerns over medication the mother was taking). Others said they switched to formula because of their job. As one mother described “having a lot of kids, I knew [breastfeeding or pumping] was going to take time I didn’t have and I was going back to look for work, so that formula feeding is easier.”

Those that did try to continue feeding their babies breast milk had mixed experiences. One mother said “I’m a [personal care attendant]. I can pump any time because I work for a client in his home.” However, a factory line worker said “Human resources provided me with a room. It was an office and it was really hot in there, and I sweated. I had a key, and I thought it locked on the outside when I went in, [but] a few times people walked in on me. That lasted a few months,” until she could make other caretaking arrangements.

Some working mothers fed their babies formula during their work hours and breast milk when they were home. They felt this was easier than trying to pump, yet still provided their baby the benefits of breast milk.

Social influences and support

As with many of the women in the study, lower-educated woman had a lot of support from friends and family. As one woman noted, “My mom more likely was the one influence for [me to breastfeed], because she breastfed all of us.” Many others received support from sisters, partners, and friends, for both breastfeeding and formula feeding. The baby’s father (who may or may not be a partner) was an important source of support for mothers. For example, one mother said her baby’s father “knew all the problems I was having with breastfeeding, and formula was the way to go.”

The lower-educated women felt more strongly than other women that they did not want to be pressured into breastfeeding. One woman said “Nurses and others can be too pushy about breastfeeding. If you don’t succeed, it’s okay.” Another said she would tell new mothers “to try both [breastfeeding and formula] and choose the one that they feel more comfortable with.”

Hmong women

One focus group was held with nine Hmong women in St. Paul. Given that only one group was held, the data in this section should be interpreted with caution. The mothers in this focus group were between 18 and 34 years old. The group was conducted bilingually, as most of the mothers in the group had at least some English language skills.

Infant feeding plans and influences

Many of the Hmong mothers reported choosing to formula feed, because it is “easier” than breastfeeding. Pumping was also perceived to be difficult. Many noted that mothers are much more “busy” in this country. A few others chose to formula feed because they perceived that breastfed babies have more diarrhea, or they themselves had an illness that prevented them from breastfeeding.

Some wanted to breastfeed because it is less expensive than purchasing formula. Many of these mothers switched to formula, describing their experience breastfeeding as “too hard.” Unlike the other focus groups, the health benefits of breast milk were not a central part of this group.

The few that continued breastfeeding noted the importance of bonding. One mother described breastfeeding as “giving your child life.”

Knowledge and influence of health care providers

Many of the Hmong mothers reported getting little information from their health care providers. Much of what they did get was in written form. As one mother described, “you have to read the information and learn it yourself.”

Some reported that their doctors “asked me if I wanted to breastfeed or use formula” when they were in this hospital. Many had decided to formula feed and felt the doctors and nurses “respect my decision.” A few that wanted to breastfeed also felt support. Like other mothers, one noted that a lactation nurse was available and “very helpful,” and a few also received visits at home.

Like other mothers in the study, the information provided by health care providers had little influence on Hmong women’s decisions about infant feeding. As one mother said, “If you already know what you are going do, then even if they [nurses and doctors] give you the information, it would not matter.” Some were influenced by the information “a little,” and did try breastfeeding.

Influence and support from worksite

Like other mothers, Hmong mothers had varied experiences with their worksites. Some noted that their worksites are “very supportive” and provide a space for mothers to pump. Some prepared to go back to work by freezing breast milk. A few had storage problems at work, and said “it would great to have a refrigerator just for the breast milk.” However, most of the working mothers felt that “powder is better,” preferring to use formula when they return to work.

Social influences and support

Unlike other mothers, Hmong women reported that their families and the Hmong elders discouraged breastfeeding. For example, mothers said “the elders told me to not breastfeed because the baby will become accustomed to your breast,” or “when my mother-in-law sees me breastfeeding, she tells me not to do it.” Mothers did not report any specifics on why the elders were unsupportive.

Though other mothers felt that “everyone has an opinion” about breastfeeding, the Hmong mothers, in particular, felt a variety of pressures from their health care providers, worksites, social networks, and WIC staff to either breastfeed or formula feed. Many stressed how new mothers need to decide for themselves what is right for them and their baby.

Recommendations/conclusions

This assessment was aimed to capture information from Minnesota mothers about the supports for and challenges of breastfeeding infants, particularly in relation to their experiences in health care settings, worksites, and social influences. Women were asked a series of questions about what they know about breastfeeding, as well as how health care providers, worksites, and their social networks influenced or supported their decision to breastfeed. Figure 5 below provides a summary of those supports and challenges.

The health care system supports women in breastfeeding by providing information on breastfeeding or discussing breastfeeding techniques in birthing, infant and breastfeeding classes. Hospital staff also support women by helping them breastfeed. Some hospitals or insurance companies provide nursing supplies as well. Finally, home visits from nurses, lactation consultants, and WIC staff support breastfeeding women. Alternatively, challenges to breastfeeding include not having adequate information about breastfeeding, how to breastfeed, or how to troubleshoot problems encountered while breastfeeding. It is a challenge for some mothers to breastfeed when hospital staff give their babies formula or take babies to the nursery.

Worksites support breastfeeding women by providing private space to pump and store breast milk and giving employees adequate time to pump. It is also helpful when supervisors and coworkers support women and make reasonable accommodations for them to pump. However, it is a challenge for working women to pump breast milk when their worksites lack a private space, they are unable to take the time necessary, or their employer is not supportive of their decision to pump.

Finally, mothers receive advice and moral support from friends, families, and other mothers. Being in social environments that support breastfeeding encourages women to breastfeed, and having help at home from family and friends support women who are breastfeeding. Many mothers persevere through the challenges of breastfeeding because they have a strong desire to breastfeed. However, in some cases, friends and family do not support women to breastfeed. Being in public places without private spaces can also be a challenge to breastfeeding. The time and energy breastfeeding takes can be very hard for some mothers as well.

5. Summary of supports and challenges

Supports for breastfeeding	Challenges to breastfeeding
Health care	
Information on breastfeeding received from health care providers	Lack of information, or information provided is not accessible
Birthing, infant, and breastfeeding classes	Lack of knowledge about how to breastfeed or troubleshoot problems
Postpartum home visitors – public health nurses, lactation consultants, and WIC staff	
Hospital staff (nurses and lactation consultants) showing mothers how to breastfeed	Hospital staff giving babies formula or taking baby to nursery
Free or low-cost nursing supplies provided by hospitals or insurance companies	
Worksites	
Private space to pump breast milk at work	Lack of facilities to pump and store breast milk at work
Adequate time to pump breast milk at work	Unable to take sufficient or timely breaks to pump breast milk
Supportive work supervisors and/or coworkers	Lack of support from work supervisors and/or coworkers
Social/personal	
Family, friends, and other mothers who breastfed	Family and friends who have negative opinions about breastfeeding
Social environment supports breastfeeding	Public perception; lack of private space to breastfeeding in public spaces
Mother has adequate support at home for other tasks	Consumes mother's time and energy; ease of formula feeding
Mother has strong desire to breastfeed	

The Minnesota Department of Health's goal is to improve the health and well being of mothers and infants in Minnesota by encouraging and supporting breastfeeding as the preferred infant feeding practice. Given the feedback provided by women through this assessment, the following recommendations are provided to support breastfeeding among Minnesota mothers.

For the health care system

- **Use multiple methods and mediums to share breastfeeding information with women.** Much of the information women described receiving was in written form. Since adults digest information through different types of media, providing information to women in a variety of multimedia contexts may be more helpful. For

example, health care providers should consider having one-on-one conversations with women about breastfeeding. Sending women home with videos and DVDs, along with written materials may also be helpful. Women should also be referred to classes and places they can access additional information on their own, such as community centers or websites. Although medical science shows that breastfeeding is the healthiest infant feeding practice, many mothers expressed interest in receiving more information on formula in order to help make a well-informed decision about infant feeding. Some mothers felt they could not make the best decision without information on both breastfeeding and formula. In addition, women who chose to feed their infant formula felt they received very little information on how to choose formulas or the risks of using formula.

- **Ensure information is culturally-appropriate.** Any materials provided, including written or visual, should be culturally-appropriate, and provided in each mothers' primary language. Several Somali women, in particular, noted getting information only in English. It is important that materials are provided in a language mothers are comfortable with, including audiovisual information for mothers with low levels of literacy.
- **Expand information to include logistics of breastfeeding.** Though women reported receiving information about the benefits of breast milk, they lacked information on the logistics of how to breastfeed. Women felt that more information on the common challenges women experience while breastfeeding would help mothers be more confident and prepared to overcome these challenges.
- **Talk about breastfeeding early.** Women often decide whether they want to breastfeed early in their pregnancy, or even before their pregnancy. Given that many women make this decision early, it is important to start talking to pregnant women about their infant feeding options at their first prenatal appointments. Alternatively, women who are planning a pregnancy or are trying to conceive should also be offered information about infant feeding during regular doctor appointments.
- **Include feeding as part of the birth plan.** Not all mothers decide how they will feed their infant in advance of their baby's birth. Those that do not plan may not feel as though their intentions are honored. Just as women communicate plans about how they would like their delivery to be, communicating their plans for infant feeding to health care providers is also important. Including feeding in their birth plans ensures women think about feeding prior to the birth, and is a way for women to communicate that plan to the hospital staff. Equally important is that, to the extent possible, hospitals honor women's infant feeding plans, just as hospital staff should try to honor their birth plans

For worksites

- **Provide facilities for breast milk pumping and storage.** Though the law requires employers provide a private space for mothers who choose to pump breast milk at work (Minnesota Statute 181.939), the types of spaces provided vary greatly. Though a dedicated lactation room is ideal, a space with a lock and electricity is necessary to ensure a woman's privacy and ability to operate a pump. Women also need a place to store pumped milk. Again, a dedicated fridge is ideal.
- **Dedicate a staff member to support women.** Women stressed that having adequate facilities is not enough. They also need assistance accessing these facilities as well as continued support from their employers. To ensure all women get what they need, human resources or another qualified staff member should meet with every woman prior to her delivery to discuss what space, storage, and time accommodations need to be made. This person should be outside a woman's work area, so women feel open to discuss their needs without it impacting her employment or relationships with her supervisor or co-workers. In addition, designated individuals should initiate the conversation and regularly check-in with mothers after they return to work, as some women will not ask for what they need and continued support is important.

For government

- **Develop a public awareness campaign.** Though the focus of this assessment was on health care and work settings, many mothers described the major influence of social networks and public perception on their infant feeding decision. As such, a larger public awareness campaign, particularly in some of the culturally specific communities in the state, would help educate everyone about the benefits of breastfeeding. With more education, the public and women's support networks will create environments that are more supportive of breastfeeding mothers.
- **Increase awareness of the benefits of breastfeeding in cultural communities.** Information and resources need to be provided to all communities, including at-risk communities and communities of color, using culturally appropriate communication methods and materials. For example, media might focus on how breastfeeding is a traditional Native American practice. Work with cultural leaders to develop media messages that are effective and appropriate for each community in Minnesota.
- **Develop or expand peer support networks for breastfeeding.** Many mothers reported how helpful it was to talk to other moms, including friends and sisters, about their breastfeeding experiences. By building on existing peer support networks, new breastfeeding mothers would have someone to turn to when they are struggling. Though mothers may also have nurses or lactation consultants available to them,

talking with other mothers is more comfortable and informal than turning to professionals for every question.

- **Educate worksites on existing state breastfeeding policies and how to implement them.** Some mothers face challenges in pumping breast milk once they return to work and know little about existing laws. Public health departments can educate worksites (and their employees) on existing federal and state laws regarding breastfeeding, and assist employers in developing systems to implement policies and provide support to employees who are breastfeeding. This may include assisting worksites in finding an appropriate lactation space, developing a lactation policy, and training supervisors and managers on what they need to do to support women who are breastfeeding and pumping breast milk.

Appendices: Protocols

Focus group protocol

Hello. My name is _____ from Wilder Research. I am here on behalf of the Minnesota Department of Health to talk to you about infant feeding practices. I am here to facilitate today's group and _____ is here to take notes. Please make sure you speak clearly so she can accurately capture what you are saying.

Before we get started, I'd like to propose a few guidelines to follow for this discussion. First, there are no right or wrong answers, so please be respectful. The purpose of this discussion is to get different perspectives and points of view. Second, please take turns so everyone gets a chance to talk. Third, I'd like everyone to agree that you will not repeat what you hear in this group to anyone outside of this group. Also to maintain your confidentiality, when Wilder reports what was learned in this group, we will do so by summarizing what was shared. We will not report any names or other information that will identify you. With that said, we would like to record today's discussion in case we miss anything in the notes. Is that okay with everyone?

Warm-up question [10 min]

1. Let's go around the room. Please introduce yourself and tell us something that you are proud of about your baby.
2. To start, I'd like you to tell me what you believe the benefits of breastfeeding and using formula are. Again, don't worry about whether your or other people's responses are right or wrong. We are interested in your perceptions...in what you believe the benefits of breastfeeding and using formula are. [List on a flip chart.]

Health care settings [40 min]

For the next set of questions, I am going to ask you about the people who provide your health care. This may include a doctor, physician's assistant, midwife, clinic nurse, public health nurse, home care nurse, or doula.

I'd like you to think back to before your baby was born, when you were pregnant...

3. What information did the people who provided your health care give you about feeding your infant? [*Probe: what did he or she tell you, what materials did he or she give you? Cover both breastfeeding and formula*]

Let's talk a little about your experience in the hospital.

4. What did hospital staff tell you or what information did they give you about infant feeding when you were in the hospital after delivery?
5. What experiences that you had with your newborn in the hospital influenced your decision to breastfeed or formula feed? [*Probe: rooming in, skin-to-skin contact*]
6. After you returned home from the hospital, how did your health care providers support your decision to breastfeed or formula feed? [*Probe: home visits, formula samples, phone numbers*]

Looking back on all of the information you received from the people who provided your health care about infant feeding...

7. What information or support was helpful to you in deciding how you would feed your baby?
8. What additional information or support would you have liked?

Now, I'd like to talk about infant feeding and working outside the home. Because employment may affect whether a woman continues to breastfeed or not, but doesn't typically affect whether a woman continues to use formula, these questions sometimes focus on breastfeeding only.

Worksites [30 min]

9. For those of you who have worked outside the home in the past year, how does your employer support women who want to continue breastfeeding or want to pump after they return to work? Is this support formal (part of a policy) or informal (dependent on supervisor's opinion)?
10. If you are currently working or are planning to return to work before your baby turns 1, how did working impact how you are feeding your baby?
 - a. If you aren't working, was infant feeding a consideration in that decision?
11. How could employers better support women with babies who want to breastfeed or pump?
12. [if there is time] In general, how could employers better support women with babies?

Wrap-up [5 min]

I am done going through my questions.

13. Does anyone have anything else they want to say about infant feeding?

I want to remind everyone to respect each other's confidentiality. Please do not discuss what others have shared in this room with people outside this room.

In thanks for your time, we have a gift card for you. For accounting purposes, we need you to sign your name on this sheet to acknowledge that you received the gift card. To maintain your confidentiality, this sheet will be kept separate from the focus group results.

Thank you so much for your time!

Interview protocol

Hi. This is _____ from Wilder Research. We are working with the Minnesota Department of Health to learn about how new mothers feed their infants. First, I have a few questions to see if you are eligible to participate.

- A. What is the age of your youngest child? _____ [If the child is less than 6 weeks old or over 12 months of age, TERMINATE.....**See AA** to terminate interview]
- B. Are you age 18 or older? ¹ Yes ² No [If no, TERMINATE.....**See AA** to terminate interview]
- C. What county do you live in? _____ [**See BB** to start interview]

AA. I'm sorry, but you are not eligible to participate. We appreciate you calling, but we cannot complete an interview. Thank you and have a nice day.

BB. I'm ready to get started with the interview, but first let me tell you a little about the study. The Minnesota Department of Health wants to learn more about the information new mothers receive, decisions they make, and resource that would be helpful around infant feeding. All of the information you provide will be kept private. It will be combined with the information of the other mothers surveyed. No individual information will be reported, and no individuals will be identified by name.

Your participation in the survey is voluntary; but, the Minnesota Department of Health hopes you will choose to participate. The survey will take about 20 minutes to complete. If this is a (convenient/good) time, we can (do the interview/get started) now.

IF R CANNOT COMPLETE THE INTERVIEW NOW, RECORD CALLBACK/
APPOINTMENT INFORMATION ON CALL RECORD AND APPOINTMENT CALENDAR.

IF R REFUSES, ASK THE REASON AND RECORD REASON ON CALL RECORD AND
COMPLETE A NON-RESPONSE REPORT.

Beginning of interview

I want to start by asking you a few questions about your family.

1. How many children do you have?
 - a. How old [is/are] your [child/children]?
2. Are you comfortable telling me the name of your youngest child, so I can refer to him/her in the interview? *If yes...* what is your youngest child's name? [If mother has twins, the first Twin's name she mentions will be the focus of the interview.]

Feeding history

3. While you were pregnant, how had you planned to feed your youngest child (*use child's name if provided/appropriate*)?
 - a. What influenced that decision?
4. How did you initially start feeding [your youngest child /**name**] after he/she was born?
 - a. *If different than planned...* What influenced your decision not to [breastfeed/use formula/do both]? Skip to Q5
5. How do you currently feed [your baby/**name**]? [Probe: breastfeeding, formula feeding]
Compare to Question 4
 - a. *If stopped breastfeeding or stopped using formula ...* What influenced your decision to stop [breastfeeding/using formula]? [Probe for exclusivity]
 - b. *If started breastfeeding and using formula together...* What influenced your decision to start [breastfeeding/using formula]?
 - c. *If the same as in Q4...* Did you ever try [breastfeeding/using formula]? How come?

Health care provider

For the next set of questions, I am going to ask you about the people who provide your health care. This may include a doctor, physician's assistant, midwife, clinic nurse, public health nurse, home care nurse, or doula.

6. While you were pregnant, what information did the people who provide your health care give you about infant feeding? *Probe about both breastfeeding and formula. Please note who said what.*
7. After [your baby/**name**] was born, what information did the people who provide your health care give you about infant feeding (*probe: in the hospital, postpartum care, during the baby's infancy*)
 - a. How did that influence your choices about feeding [your baby/**name**], if at all?
8. Have the people who provided your health care been supportive of your choices related to feeding [your baby/**name**]? (*probe: in the hospital, postpartum care, during the baby's infancy*)
 - a. What have they done that [is/isn't] supportive?
9. After you returned home from the hospital, how prepared did you feel to breastfeed or formula feed your baby?

Work

10. What is your current employment status?
 - ¹ Working full time
 - ² Working part time
 - ³ On medical (maternity) leave, but will be returning to part-time work
 - ⁴ On medical (maternity) leave, but will be returning to full-time work
 - ⁵ Unemployed, seeking work (*go to Q. 14*)
 - ⁶ Stay-at-home parent (*go to Q.21*)

11. Are you self-employed?
¹ Yes (*go to Q. 21*)
² No
12. If you are working or plan to return to work, what [was/will be] the age of [your baby/**name**] when you return(ed) to work?
13. What type of work do you do?
14. What [are/were] your plans for feeding [your baby/**name**] when you return[ed] to work?
 a. What influenced your decision to [breastfeed/use formula] when you return[ed] to work?

If she is not currently working, go to Q17

If she is currently working, continue

15. Once returning to work, how did you feed [your baby/**name**]? [Probe: breastfeeding, formula feeding, or combination]
For all the following, probe about office policies, supervisor and co-worker behavior, schedule, work space
- a. *If stopped breastfeeding or stopped using formula ...* What influenced your decision to stop [breastfeeding/using formula] once you returned to work?
- b. *If started breastfeeding and using formula together...* What influenced your decision to start [breastfeeding/using formula]?
- c. *If followed plan...* What worked well about [breastfeeding/using formula/that combination] after you returned to work? What didn't?

If breastfed since returning to work continue. If not, go to Q17

16. What, if anything, made it easier for you to breastfeed after you returned to work?
 a. What, if any, additional support or resources would you like from your employer in regard to breastfeeding [your baby/**name**]?

Child care

17. What form of childcare do you typically use while you work?
18. How has your childcare provider influenced your decision about how to feed [your baby/**name**], if at all?
19. What additional support would you like from your child care provider in regard to feeding your baby?

Social support

20. In general, do you feel supported in your decision about how to feed [your baby/**name**]?
 a. Who in your life has been particularly supportive? How?
 b. Has anyone been unsupportive? How?
21. What advice about infant feeding would you give other women?

Demographics

Now I just have a couple of final demographic questions to ask.

22. How old are you?

¹ 18-24

² 25-29

³ 30-34

⁴ 35-39

⁵ 40-44

⁶ 45 or older

23. What is your highest level of education?

¹ Eighth grade or lower

² Some high school

³ High school graduate or GED

⁴ Some college

⁵ 2 year degree or technical college

⁶ College graduate (BA, BS)

⁷ Post-graduate work or professional school

24. What is your race/ethnicity? [Check all that apply]

¹ African American

² Asian/Asian American

³ Native American

⁴ African

⁵ White/Caucasian

⁶ Hispanic/Latina

⁷ Other

I am finished with my questions.

25. Do you have anything else you think would be important for us to know about infant feeding?

To thank you for your time, we have a gift card for you. In order for me to mail you your gift card, can I please get your address?

Write information on face sheet. Make sure to ask Certified or Regular mail.

Thank you for participating in this survey. Your answers are important to us. Your gift card should arrive in the mail in two to three weeks.

651-201-5443

TTY 651-201-5797

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