

BREASTFEEDING AMONG RURAL PANAMANIAN WOMEN:  
INITIATION AND DURATION FACTORS

By

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A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF ARTS IN ANTHROPOLOGY

WASHINGTON STATE UNIVERSITY  
Department of Anthropology

MAY 2010

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## ACKNOWLEDGMENT

The author would like to thank her thesis committee chair, Dr. Marsha Quinlan, for her continued support while at Washington State University and abroad in Panama while completing her Peace Corps service. Special thanks go to Elizabeth Gilles and Dennis Vilorio for their help with translating several of this study's documents, and to Guy Hayes and John Cooke for their unwavering support and understanding. She would also like to thank all of the women who treated her like a true Panamanian, and allowed her to use their breastfeeding experiences to make this paper possible. This work is dedicated to the children of Panama.

# BREASTFEEDING AMONG RURAL PANAMANIAN WOMEN: INITIATION AND DURATION FACTORS

## Abstract

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May 2010

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Breastfeeding is an integral part of Panamanian culture and important for mitigating the high rates of infant morbidity caused by diarrhea; yet, according to recent reports, only 25% of babies are exclusively breastfed at six months of age, while only 38% receive any breastmilk at nine months of age. This study identified the factors that affect breastfeeding initiation and duration to provide Panamanian public health agencies the data necessary to develop culturally appropriate breastfeeding campaigns aimed at increasing support for and rates of breastfeeding among Panamanian families.

Ethnographic data was collected in rural communities in Panama from August 2007 until March 2009. This data comes from participant-observation within the community and informal interviews (N=150) with community members on breastfeeding experiences and factors that affected infant feeding decisions. Observations and informal interviews were augmented by detailed, open-ended, semi-structured interviews with ten key female informants, aged 18-36, with at least one child under the age of 5.

Higher levels of prenatal education associated with increased knowledge regarding breastfeeding benefits for infants. Participants reported heavily relying on informal sources of support, such as mothers and male partners, when making infant feeding decisions. Women who delivered in hospitals that did not supply formula, encouraged breastfeeding on demand, and permitted “rooming-in”, where the mother and infant remain in the same room for the duration of the hospital stay, reported longer breastfeeding durations. Informants reported

positive attitudes toward breastfeeding as a result of their perceived widespread acceptance and practice of breastfeeding.

To increase breastfeeding duration rates, prenatal education should include discussions of alternative feeding methods, such as breast milk pumping, and the conditions that precipitate their use, such as employment outside the home, as well as the importance of exclusive breastfeeding during the first six months. Because mothers rely heavily upon informal sources of support, including their mother and male partners, breastfeeding campaigns should include audio-visual messages that focus on infant feeding as a family decision with special emphasis on paternal influence and involvement. Public health agencies and hospitals should collaborate to develop a national breastfeeding policy to improve efforts to achieve *Baby-Friendly Hospital* status.

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## **INTRODUCTION**

Despite international efforts and those of the Panamanian government to promote breastfeeding, breastfeeding rates remain low while infant morbidity rates continue to increase. Identifying the factors that influence breastfeeding initiation and duration among women in Panama can be useful to develop culturally appropriate breastfeeding interventions that increase breastfeeding rates.

According to a 2007 UNICEF report [1], only 25 % of Panamanian infants are exclusively breastfed at six months of age, while only 38% are receiving any breastmilk at nine months of age. As of 2006, the Ministry of Health of Panama [2] reported that at least 67% of children under the age of two had been afflicted with some type of serious illness, mainly bacterial diarrhea and acute respiratory infections. Mortality rates of 20.4 percent and 14.73 percent are reported per 1,000 live births for children under five and children under one year of age, respectively [3].

Formula feeding in developing countries causes high incidences of bacterial diarrhea because potable water sources are often contaminated with pathogens [4-5]. Although rainwater is abundant in Panama's tropical climate, water is usually obtained from community aqueducts. These aqueducts are often contaminated because of lack of proper maintenance and flooding. Diarrheal rates are also increasingly high in Panama not only because infant formula is mixed with contaminated water but also because of the lack of refrigeration for mixed formula, which can cause spoilage. Improper cleansing and sterilization of feeding equipment, such as bottles and teats, is another contributing factor to the contamination risk [4, 6-9]. Also, financially strapped families in Panama, and families in other developing countries as well, often overdilute infant formula in order to save money [5]. Overdilution decreases the amount of nutrition an infant receives which can lead to malnourishment and death if prolonged [5].



### ***Multi-level breastfeeding benefits***

Breastfeeding protects infants from diarrhea because lactoferrin in breastmilk binds to iron in the baby's digestive tract to inhibit the growth of intestinal bacteria such as *E.Coli* and salmonella [6-7, 9-12]. Other anti-infective properties of breastmilk have been widely documented throughout the literature, including protection against sudden infant death syndrome [11, 13-15], asthma and other upper respiratory infections [6, 9-11, 13], onset of juvenile diabetes [6, 9-10, 13], childhood onset obesity [7,10], childhood cancers such as leukemia [7], dental problems [9-10, 13,16], and eczema [9,11].

Although the current birth rate in Panama is 2.4 children per woman [17], rural families in Panama traditionally have at least four children. Although there is no standard definition for 'rural' in Panama, this study utilizes the Peace Corps definition of 'rural', which includes communities with 2,500 residents or less.

Breastfeeding naturally provides a child spacing mechanism known as 'lactational amenorrhea' that can be very effective if breastmilk is the infant's only source of nutrition for at least the first six months and breastfeeding on-demand and night feedings continue throughout breastfeeding duration [4, 6, 9, 14-16,18-21]. This natural child spacing occurs due to hormonal suppression of ovulation, which delays the return of menstruation [4, 6, 9, 14-16, 18-21].

Breastfeeding also assists mothers in returning to their pre-pregnancy weight because it burns 500 to 1000 calories a day [4, 7, 9, 22-23]. Other health benefits that breastfeeding affords mothers include reduced risk of breast cancer, uterine cancer, and certain types of ovarian cancer [9-11,24-25], a more rapid return of the uterus to its prepartum state [4,6], and a reduced risk of osteoporosis [6,10].

Economically, breastfeeding saves money for families because it requires no additional equipment or materials to breastfeed. Breastmilk leaves the breast clean, ready for infant consumption. Also, on both a family and national scale, healthcare costs associated with formula

feeding are averted because breastfed infants are generally healthier than their formula fed counterparts [5, 26].

On an environmental level, no waste is associated with breastfeeding. Panama suffers heavily from deforestation and metal harvesting; breastfeeding, instead of formula feeding, decreases the demand for paper and metal products necessary in the production of formula products. Furthermore, breastfeeding reduces plastic waste as it nourishes infants without bottles or other equipment.

### ***International and Panamanian Government Efforts***

The World Health Organization (WHO) and UNICEF have made the promotion of breastfeeding a primary goal through the development of international standards and policies, such as the *International Code of Marketing of Breast-milk Substitutes* (1981), the *Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding* (1990), and the *Baby-Friendly Hospital Initiative* (1991). The WHO also recommends exclusive breastfeeding (breastmilk with no additional juices or teas for the first six months) and continued breastfeeding with complementary feeding for up to 24 months.

#### ***International Code of Marketing of Breast-milk Substitutes***

Increased infant mortality and infant morbidity and heightened awareness of the importance of infant feeding and early nutrition led to the scrutiny of formula promotion and subsequent adoption of the *International Code of Marketing of Breast-milk Substitutes* by the World Health Assembly (WHA) on May 21, 1981. The main stipulations of the Code[4] include that there should be (1) no advertising of breastmilk substitutes, feeding bottles, and teats to the general public; (2) no free samples given to the mother by marketing companies or health care workers; (3) infant formula manufacturers and distributors should have no direct or indirect contact with pregnant women or mothers of infants and young children; (4) no promotion of free or low cost supplies in healthcare facilities; (5) no gifts or personal samples supplied to health care workers; (6) no pictures of infants, or other words or pictures, idealizing artificial

feeding on the labels or brochures about the products; (7) information on artificial feeding, including that on the labels, an explanation of the benefits and superiority of breastfeeding and the costs and dangers associated with artificial feeding; and (8) no promotion of unsuitable products, such as sweetened condensed milk, for babies.

The *Code* also indicated that governments should adopt “national legislation, regulations, and other suitable measures” [8] to protect mothers from marketing of substitutes over human breastmilk.

#### *Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding*

The *Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding*, adopted in 1990, called for global support of breastfeeding through four “operational targets” as adopted from Labbok, 2006 [4]. Nations were called upon to:

- Appoint a national breastfeeding coordinator with appropriate authority, and establish a multisectoral national breastfeeding committee composed of representatives from relevant government departments, nongovernmental organizations, and health professional associations,
- Ensure that every facility providing maternity services practices all of the “Ten Steps to Successful Breastfeeding” set out in the WHO/UNICEF statement on breastfeeding and maternity services,
- Give effect to the principles and aim of the *International Code of Marketing of Breast-milk Substitutes* resolutions in their entirety, and
- Enact imaginative legislation protection the breastfeeding rights of working women and establish means for its enforcement.

As the Code envisions, the *Innocenti Declaration* too sees national governments as the vehicles employed to monitor and control the behavior and operations of commercial companies.

#### *The Baby-Friendly Hospital Initiative*

Following the global adoption and support of the *International Code of Marketing of Breast-milk Substitutes* and *Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding*, and after subsequent scientific studies demonstrated the impact of hospital policies and practices on breastfeeding initiation and duration, the *Baby-Friendly Hospital*

*Initiative* (BFHI) was launched by WHO/UNICEF in 1991. This initiative aims to improve the services at health facilities that provide maternity services in accordance with the *International Code of Marketing of Breast-milk Substitutes* and *Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding*.

The criteria for a hospital's Baby Friendly accreditation [27] include:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within one half-hour of birth.
5. Show mothers how to breastfeed and maintain lactation, even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breastmilk, not even sips of water, unless medically indicated.
7. Practice rooming in - that is, allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

### *Panamanian Government Efforts*

On November 23, 1995, Panama passed Ordinance 50, which establishes a national breastfeeding committee as espoused in the *Innocenti Declaration*. This committee has struggled during the past fourteen years due to funding limitations to accomplish its original purpose: to ensure that the maternity services provided to pregnant women, mothers, and infants in Panamanian hospitals are in accordance with the “Ten Steps to Successful Breastfeeding” as promoted by WHO/UNICEF [27]. In 2009, however, the Ministry of Health of Panama reported in its *Report of Accomplishments: 2004-2009* [3] that the reactivation of the National Commission for the Protection on Breastfeeding became possible due to financial and technical support provisions provided by UNICEF. This commission is presently reviewing

current national breastfeeding legislation and conducting training sessions of twenty required service hours per maternity staff member in the five *Baby-Friendly* hospitals that exist in Panama. According to the same report, this commission has also created an evaluation team that is directing the recertification process of the country's five *Baby-Friendly* hospitals, as well as the certification of new hospitals as *Baby-Friendly*. There are currently 63 hospitals and clinics in Panama of which 37 provide maternity services [2].

Panama's Ministry of Health also has several programs for children under the age of five. The Ministry of Health with the assistance of UNICEF and WHO developed the "Strategy of Integrated Attention to Prevalent Illnesses among Infants" [2], which promotes exclusive breastfeeding for up to six months, the introduction of complementary foods at six months and breastfeeding with complementary feeding until 24 months in order to mitigate high infant mortality and morbidity rates among its infants and children under two [3].

APLAFPA, the family planning agency in Panama, has an in-depth family planning training/presentation that it provides to women in all provinces of Panama. As part of the nation's efforts to increase breastfeeding rates, breastfeeding is included in the family planning presentation as an effective method to increase child spacing.

#### *Prior Projects/Studies*

Although breastfeeding studies abound, a review of literature reveals a dearth of studies specific to Panama; only two studies were discovered and are discussed below.

Huffman (1991) [28] provided a historical review of the Panama Breastfeeding Promotion Project (PROLACMA). PROLACMA, funded by USAID, operated between September 1983 until December 1987. This project planned and implemented training and programs to increase exclusive breastfeeding rates among infants. Project activities including training healthcare professionals about benefits of such hospital practices as 'rooming-in' and the restricted use of bottles, educating the public about the benefits of breastfeeding through mass media campaigns, and setting up milk banks in six of the eleven provinces of Panama. Mass

media campaigns included a variety of media forms including posters and pamphlets, as well as radio spots. PROLACMA reported that in a clinic in the province of Coclé the rate of exclusively breastfed infants grew from 30% to 57%. In the 1987 final report, hospitals reported having modified their policies to include more positive breastfeeding measures, such as ‘rooming-in’ and decreasing formula use.

In 1995, Orozco de Alfaro [29] published a study Panamanian adolescents' knowledge about adolescence, pregnancy, breastfeeding, and the first year of life. 619 students from 26 schools in the province of Chiriquí, Panama participated. Data compiled from self-administered questionnaires and focus groups demonstrated that participants had no knowledge of maternal nutritional needs while breastfeeding. Furthermore, respondents considered breastmilk to be the best food for newborns but believed the only risk of bottle feeding to be unhygienic handling. Students in urban schools knew less about maternal nutritional needs; male students from all types of schools had less knowledge of maternal needs than females.

### *Original Contribution*

This study provides accurate information about the factors in Panamanian women’s lives that influence their infant feeding decisions. Recommendations included in this study emphasize demonstrated needs in the aforementioned studies: increasing prenatal education to increase breastfeeding knowledge, and developing and enforcing a comprehensive breastfeeding policy in hospitals to encourage positive behaviors that influence initiation and duration. Furthermore, this study further elucidates the importance of social support and the media as influential in the infant feeding decision.

### ***Factors that Influence Breastfeeding Initiation and Duration***

While numerous studies have been conducted to identify the factors that influence breastfeeding initiation and duration, the relationship between predictors in developed countries and predictors in developing countries is still unclear [6, 12]. The decision to

breastfeed is quite complex and is not influenced by any one factor but rather a combination of factors [9, 11, 13, 30-31].

Studies identifying factors that affect breastfeeding initiation and duration in Panama are lacking. After extensive literature review and participant observation prior to formal data collection, the author selected factors applicable to both developed and developing countries and an overall Latin American cultural basis as indicated in the following categories:

- Social support
- Maternal attitudes
- Hospital practices and policies
- Media
- Early supplementation
- Residence

### ***Cultural Context of Factors that Influence Breastfeeding Initiation and Duration in Panama***

#### ***Social Support***

A woman's interaction with informal sources of support, such as her partner, family and friends, and formal sources of support including healthcare professionals, lactation consultants, and nurses, can have a tremendous impact on a woman's willingness to sustain breastfeeding [6, 9, 11]. A lack of informal support drastically reduces breastfeeding duration. Conversely, if members of a woman's social network have breastfed and/or support the woman's decision to breastfeed, women are more likely to initiate and continue breastfeeding [6, 13, 30, 32-34]. Among economically disadvantaged women, Milligan, et al. (2000) [24] found that the supportive environment is particularly important to the continuation of breastfeeding in the first month of the baby's life.

Formal sources of support, including doctors, nurses, and lactation consultants, can positively influence a woman's infant feeding decision though caution is necessary. Among Bangladeshi women, Hollander (2001) [35] concluded that 70% of the postpartum women in the sample who were visited at home by a trained peer counselors were still exclusively

breastfeeding at five months, compared to only 5% of the control group that received no visits. Healthcare professionals, however, sometimes provide pregnant or postpartum women with inconsistent, inaccurate, and/or inadequate breastfeeding information and recommendations, which results in decreased rates of breastfeeding duration [30, 33].

In rural areas, Panamanian children often reside in the home until they find a suitable spouse, go to school in an urban area, or find employment in urban areas. Married males, if at all possible, often reside where their mothers are located. This trend results in extended families in these rural areas of Panama. As stated before, there are traditionally at least four children in a rural Panamanian family. Several interrelated families often comprise rural communities. The pregnant female and subsequent mother, in this case, is afforded a very large familial network on which to rely for social support.

Compared to a female's informal support network, access to sources of formal support is much more limited. Although small clinics exist in several rural communities, these clinics do not provide pre-partum services such as ultrasounds. Women must travel either by public bus, if available, or by foot, to a clinic that provides pre-partum services. These visits are costly in terms of time and money, and the collective family traditionally has limited income as the average is \$100 a month. Exams can cost between \$15 and \$45, depending on the complexity of the exam. For example, a mother's ultrasound will cost significantly less at a general health clinic than if she were to obtain similar services at a specialized maternity clinic.

### *Maternal Attitudes*

A number of factors shape women's attitudes including their social support network, everyday experiences, perceived problems or complications of breastfeeding, perceived convenience or inconvenience, and perceived benefits or lack thereof [6, 11, 30, 33-34, 36-39].

If a woman has been exposed to breastfeeding, or was breastfed as a child, she tends to have a more positive attitude toward breastfeeding [33, 40-42]. If a mother believes that breastfeeding will be painful, and that a baby's suckling results in cracked and bleeding nipples,



and that she will not have enough milk based on reports from her peers who have attempted to breastfeed, she will more than likely have a negative attitude [11, 30, 36]. Dennis (2002) [6] reports that between 1% to 5% of women have genuine problems with insufficient milk, yet it is the reason most women claim for discontinuing breastfeeding. This phenomenon is termed “insufficient milk syndrome” and women often cite it because it is a culturally acceptable reason. Actually, there are other factors at play such as ignorance of the impact of supplementary feeding, or even personal choice because the mother does not like being the only source of food [6, 9, 13].

Panamanians welcome the breastfeeding infant everywhere- in the post office, on the bus, in restaurants, classrooms, and so forth. Women do not make any effort to hide their breastfeeding infant, nor do they excuse themselves to a restroom to breastfeed. Therefore, a female’s exposure to breastfeeding in a variety of settings is relatively high. The widespread practice of breastfeeding illustrates the strong tradition of breastfeeding, especially in rural areas.

#### *Hospital Practices and Policies/Prenatal Care and Postnatal Care*

According to Cropley and Herwehe (2002) [34], a lack of prenatal and postnatal education can directly affect the incidence of breastfeeding. Hospitals often have postnatal plans of action for breastfeeding mothers but often times the interpretation, implementation, and enforcement of those policies are limited because of lack of training and consistency on the part of hospital staff [34].

The “Ten Steps to Successful Breastfeeding” [27] state that nurses and other maternity staff such as lactation consultants should assist mothers to initiate breastfeeding within a half hour of birth. Some suggest that women do this to establish a breastfeeding rhythm and to be with the baby, feed the baby, and establish successful proper latch-on, as well ensuring that the baby receive its mother’s colostrum. Because breastfeeding is a natural act but also a learned skill, maternity staff provides the mother an opportunity to learn and practice proper latch-on

and other breastfeeding positions rather than learning the techniques on her own, which can decrease breastfeeding rates.

Rooming-in as a hospital policy can affect breastfeeding duration rates [20, 30, 39]. Demand feeding is essential to breastfeeding success and rooming-in promotes a demand feeding schedule as well as increases mother-to-baby contact. If the woman and baby are separated after delivery, the incidence of supplementary feedings is drastically increased due to lack of control of feeding by the mother. Any supplementary feeding interrupts a woman's milk supply production and can cause incorrect sucking techniques performed by the baby when breastfeeding, which results in unsuccessful latch-on and subsequent unsuccessful breastfeeding [9, 38].

Although most maternity hospitals are located in Panama's urban centers, rural women will travel to be near the hospital a few days prior to their potential due date, often staying with a family member that is near the hospital. Very few births occur within the home. Delivery costs are relatively low, fifty dollars a child, but if there are any complications and the mother requires any blood transfusions, she has to pay an extra fee between thirty-five and fifty dollars. Unfortunately, many family members do not have the necessary funds to pay for the blood from the hospital and will attempt to solicit blood from a person with the mother's matching blood type in the waiting room. Families often bargain for blood with produce and other goods.

Because of Panama's efforts to increase breastfeeding initiation rates, there are many hospital policies regarding practices such as rooming-in and initiating breastfeeding within a half-hour. Typically, either the baby stays in the room with the mother, or the mother travels to the infant nursery every hour to breastfeed, with little or no night feedings.

Free samples of formula are not provided to mothers when departing the hospital. When a child is older, the government, however, provides something similar to porridge to requesting rural families. This porridge is given to toddlers and often is the first form of soft food introduced to an infant.

## *Media*

Mass media content can affect the general public's health decisions. Media outlets influence public health decisions because these outlets "shape and reinforce dominant ideologies and convey these messages to a mass audience through systems of representation" [32]. Media utilizes advertising to introduce new products to the general public and explain why the public needs this particular product. By informing the public about breastmilk substitutes and "emphasizing the need for this product, media outlets likely encourage the widespread adoption of breastfeeding alternatives" [32]. One case study presented by Beasley and Amir (2007) [43] illustrates the power of the media's influence on a woman's infant feeding decision. A colleague was conducting an infant feeding study in the West Indies in the 1970s and the women reported that they "could not afford to breastfeed." Further investigation into this claim revealed formula companies had distributed brochures stating that breastfeeding required women to consume at least 3,000 calories a day in order to produce sufficient milk for their children.

Promotion of Western ideologies and practices began in the early 1900s with the United States' military occupancy of Panama and the subsequent construction of the Panama Canal. The American dollar is Panama's form of currency. American brands of baby food products and equipment, such as Gerber products, are ubiquitous and are known as American products by Panamanians. Breastmilk substitutes are available everywhere as well, including the small family stores in the most rural centers. Although most families receive limited income, most households have at least one television, provided electricity is available in the area. There are four basic channels and no cable in rural areas. There are several Nestle, Gerber and Infamil product commercials that saturate the airwaves throughout the day.

## *Early Supplementation*

Giugliani, et al. (2007) [44] reported in their study that breastfeeding cessation in the first six months was more frequent in children who were being partially fed artificial formula

and breastmilk. Partial feeding babies may develop an incorrect sucking pattern by incorporating tongue movements that are common with the use of a bottle therefore complicating a baby's ability to receive adequate milk [44]. Any time any other liquid is used to replace a feeding with the breast, a woman's milk supply is reduced because the breasts require frequent stimulation in order to release the hormone prolactin to produce more milk [9, 13, 26]. Rural Panamanian infants often receive Gerber baby food or government supplied porridge in the first few months of life. In hotter areas, mothers and other caretakers give infants water for purposes of mitigating assumed dehydration.

### *Residence*

Dettwyler (1988) [31] states that the trend in many of the urban centers of Third World countries is moving away from breastfeeding and toward a more widespread use of bottle feeding and use of breastmilk substitutes. Women in rural areas reportedly breastfeed at higher rates and longer durations than women in urban areas. Mahler's reported study [45] involving women in 15 developing countries demonstrates that women who had spent their childhood in urban areas were about 25% less likely to breastfeed their children than were the women who had been raised in rural areas. Mahler concludes that rural women in developing countries often adhere to traditional values, and the economic constraints of rural areas often lead to a decreased purchasing power among families, including the purchase of commercial alternatives to breastmilk. Witwer's [46] study of developing countries' breastfeeding rates compares demographic and health surveys and concludes that women living in rural areas in Central America breastfeed an average of 4 months longer than their urban counterparts.

## METHODS

### *Ethnographic Background of Study Site*

The Central American country of Panama is roughly the size of the state of South Carolina, and has a population of 3,360,474, with 73% of the people located in urban centers, and an annual rate of urbanization at 2.7% [17]. The community of Piedra de Candela, located in western Panama in the mountains of La Amistad National Park and on the border of Costa Rica, has about 603 permanent residents. In terms of nationality, the residents of Piedra de Candela primarily identify themselves as Panamanians or Costa Ricans. Because it is a border town, there is a high presence of Costa Ricans in this community. There is also a large presence of an indigenous group, Ngöbe Bugle, due to seasonal work migration.

Most children stay home until they have found a significant other or have gone to school. Panamanian education programs are free until the 6<sup>th</sup> grade. Secondary schooling is expensive for the majority of Candelians, who earn less than \$100 a month.

In Piedra de Candela, Panamanians and Costa Ricans commonly live in concrete block houses. Residents build these *bloque* houses with local beach sand. Members of the Ngöbe Bugle often reside in compounds known as *campamentos*, which are owned by the coffee farms for whom they work. The family, usually with the assistance of other community members, constructs any residence during what is called a *junta*, or community construction.

All residences have a series of intricate plastic tubes connected to the aqueduct located in the national park, which sits at the top of the community, about a mile and a half away from the center of town. Almost every house is set up to receive water from the aqueduct. An aqueduct committee is responsible for its maintenance and treatment. Despite the necessity for running water, the aqueduct committee is defunct, resulting in an often untreated and sporadic water supply. Panama receives almost 280 days of rain a year and many houses collect rainwater; during the dry months, however, residents rely heavily on the aqueduct. The water from the

aqueduct contains parasites, most notably *Giardia*. Collected rainwater also contains contaminants, however, so residents often boil it, but they rarely boil water from the aqueduct.

Roughly 85% of the houses in Candela have electricity to some degree if it only be one outlet or light bulb fixture. Electricity is often shared between houses with a series of wire, in essence “borrowing” it from the primary source. The electricity supply can also be sporadic. Most residences pay two dollars a month for electricity and nothing for the aqueduct. Very few homes have indoor plumbing and instead use a pit latrine. Homes do not use electric stoves-only propane gas stoves are found inside. Often, most houses also have a wooden enclosure at the back of the house that contains a fire pit to cook large pots of food, such as rice, beans, and soup.

Almost all areas in Panama operate according to a cash economy. Fathers’ most common occupations in Candela are store owner, coffee harvester, and vegetable farmer. Most women are not employed outside the home. All stores in Candela, however, are within the residence of the owner and most are operated by the *ama de casa*, or housewife. Coffee is a staple in Candela and coffee plantations abound. Coffee from Candela is sold throughout the nation and internationally as well. Because coffee is harvested seasonally, there is a large influx of migrant workers, mainly of the Ngöbe Bugle, which temporarily increases the village’s population from 600 to 3,500 people. The coffee harvests begin in late July and lasts through mid-November. Families plant several vegetables, including tomatoes, cucumbers, onions, potatoes, and plantains and local vegetables such as name, otoa, chiole, and yuca, in family gardens or farms. Families sell these vegetables once they have been harvested. Families sell surplus vegetables in the neighboring town of Rio Sereno. A fraction of the families in Candela have garden plots and raise cows or pigs. Almost every family has hens and roosters, which they use as a food source for eggs and meat. Beef is not a large animal protein staple.

Panamanians' diet consists of two staples, rice and beans. Almost every meal contains rice. Eggs, chicken, and fish supply any animal protein in the diet. Unfortunately, many of the products available in the local stores are made from refined sugar and empty calories. Fried

foods, in the form of yeast and corn mixtures, are common as Panamanians tend to fry everything except rice and beans. The diet of most Candelians lacks fiber in the forms of fresh fruits and vegetables. Interestingly, there are two Spanish words for vegetables: *verduras* and *vegetales*. *Verduras* include cucumbers, tomatoes, onions, and other nutrient rich vegetables. *Vegetales* include the carbohydrate rich vegetables such as potatoes, corn, yucca, name, oteo, and plantains. Panamanians often explain that they eat plenty of vegetables but they are only referring to the starchy ones.

Matrilocal residence defines the social organization of Candela. Of the 603 residents in Candela, 402 of them are involved in 18 extended families. There are 38 Panamanian residents that are not affiliated with any familial line. The Costa Ricans are often unrelated and comprise 47 residents. The remaining 116 residents belong to the Ngöbe Bugle indigenous groups. Their social organization is rather complex and will not be discussed in this study. Also, it must be noted that children in Panama are given the last name of both the mother and father. Because the author resided in the community for a period of two years she was able to ascertain family relations and organizations. Most couples are not formally married and are considered *unida*, or otherwise common-law. Infidelity is a cultural norm among Panamanian men and it is not considered negative when a man has several female partners. However, each Panamanian man normally has an *esposa*, or wife, that is the mother of his children, and *novias*, or girlfriends with whom he has his *aventuras*, or affairs.

The people of Piedra de Candela follow three religions. There are four (4) Evangelical churches, two (2) Catholic churches, and one (1) Adventist church in the area. There are also traditional *Mama Tata* services of the Ngöbe Bugle, which normally take place in the compounds in which they reside, and occur only seasonally. Most permanent Ngöbe Bugle residents are members of the Adventist and Evangelical churches, respectively. The congregation sizes vary throughout the seasons. Evangelical churches hold services Tuesdays,

Thursdays, and Saturdays, and typically have larger congregations than the Catholic or Adventists churches, ranging between 35 and 75 attendants.

### ***Participant and Key Informant Description***

The author conducted informal interviews with roughly 150 women between the months of August 2007 until March 2009. These women were from rural communities in the provinces of Chiriquí, Veraguas, and Coclé. An additional ten long, open-ended semi-structured interviews were conducted with female key informants from the community of Piedra de Candela. Key informants were females with whom the author worked on a weekly basis in activities, such as the women's sewing group, educational classes, and cooking, and with whom the author had established ample rapport. Informants were over the age of 18 and had at least one child under the age of five.

### ***Instrument Design***

Informal interviews were conducted with willing participants in a variety of settings. These were guided conversations about breastfeeding, pregnancy, infant nutrition, and other practices regarding their children. These interviews were not recorded.

A consent form was developed that explained the purpose of this investigation and requested permission to use a digital audio recorder. All interviews were conducted in the native tongue of Spanish. Women were encouraged to select a pseudonym to ensure anonymity.

A semi-structured guide was created to obtain descriptions about the women's breastfeeding experiences and the factors that influenced their infant feeding decisions. The guide included various questions based on the themes of breastfeeding knowledge, attitudes toward breastfeeding, the practice of breastfeeding, weaning, use of breastmilk substitutes, social support networks, impact of the media/public, and the impact of hospital policies and



delivery experience. An index child breastfeeding timeline was also used to accurately record the stages and periods of breastfeeding using the WHO's definitions of breastfeeding [27]:

- **Exclusive breastfeeding:** the baby receives only breastmilk; no other liquids or solid food are given.
- **Predominant breastfeeding:** the baby receives primarily breastmilk but may have received water, tea, or fruit juices, etc.
- **Partial breastfeeding:** the baby receives breastmilk in combination with formula or other form of breastmilk substitute.
- **Artificial feeding:** the baby only receives breastmilk substitutes or other artificial milk formula.

All instruments used in this study were written using back translation. Two bilingual Peace Corps volunteers were asked to assist in the back translation of the documents.

### ***Data Collection***

#### *Participant Observation and Other Relevant Community Experience*

Research was conducted during the author's Peace Corps service in the program of Community Environmental Conservation in Panama from May 2007 until March 2009. She completed an intensive ten week training course in the community of Santa Clara, Panama, near Panama City, and was then placed in Piedra de Candela, in the province of Chiriqui, on the west side of the country.

The author became interested in breastfeeding upon arrival. Women breastfed everywhere in public, which served as the largest component of culture shock she experienced. She began asking questions in Santa Clara and then in various communities that she visited. As a Peace Corps volunteer, she established numerous contacts at public health agencies as she participated in public presentations on HIV/AIDS and personal hygiene, as well as adolescent health development and self-esteem. In her community, she worked with nurses at the local clinic. She also established a women's sewing group as an income generating opportunity for the

women in her community. She was able to utilize this outlet to obtain the necessary data for this study.

### *Interviews*

Informal interviews were all in Spanish and took place whenever convenient. Field notes were recorded at the end of the day in a journal for future reference. All observations were also recorded.

Semi-structured interviews were conducted at either the key informant's house or at the location of the women's sewing group from October 2008 until December 2008. All discussion was in Spanish. No interpreter was necessary. Interviews lasted between one and two hours, and with the informant's permission, were tape recorded. Field notes and interview synopses were completed shortly after the interview finished. All records and notes were continuously secured in a file box located at the author's house.

### *Data Analysis*

The key informant interviews were read and coded for themes. The author transcribed each informant's responses in the most relevant theme section. Responses were then transferred to Microsoft Word documents under the appropriate theme.

## **RESULTS**

### ***Informant and Index Child Characteristics***

All key informants were Latina, from Panama or Costa Rica, spoke only Spanish, and all were multiparous. Most women had their first child between the ages of 15-18. All informants breastfed their children for at least ten months. All index children had been exclusively breastfed for some period but very few received only breastmilk up until six months. A majority of the informants also reported using some type of family planning method prior to the pregnancy of the index child.

Informants' monthly household incomes ranged from less than \$100 a month to \$250 a month. Few informants claimed occupations outside of the home. Occupations included teacher and participation in a community sewing group. All of the informants had received at least a sixth grade education and could read and write. Few informants had further schooling.

### ***Breastfeeding Knowledge and Practice***

In general, all informants reported that the breast was better than the bottle. This is the general sentiment of a majority of reproductive women in rural communities. All informants were aware that there are numerous advantages and benefits of breastfeeding for the baby and could not describe any disadvantages for the baby. Few participants disagreed that the improper use of formula can have detrimental health effects on a baby:

[...It (breastfeeding) is complete. All my boys are healthy and never sick. No diarrhea, no vomiting. Diarrhea only happens with formula; especially if the water is not boiled correctly. The water can have parasites in it so it has to be boiled-Estella, 36 years old, mother of 7]

[...The baby does not get as sick, has less colds, breastfeeding does not get them sick like formula does-Ana Lucia, 22 years old, mother of 2].

Most informants described one of the most rewarding benefits of breastfeeding to be the bond that is created between mother and infant. They also described a relationship between this bond and an increase in a mother's self-esteem. Maria, a 22-year old mother of two, states:

[...There is absolutely nothing that can replace breastmilk. Formula does not have the warmth of breastfeeding, the touch, the feeling...a bottle cannot achieve the same feeding of breastfeeding.]

Other informants reported:

[...Breastmilk is from your own body, you are the only one that can provide it, and you can spend more time with your children- Daniseth, 18 years old, mother of two].

[...Breastfeeding increases a woman's self-esteem. Some women feel useless, like they aren't good for anything and breastfeeding makes them feel like a woman and feel important because the baby needs you, in more ways than one- Uvaldina, 28 years old, mother of four].

Most informants, however, could not describe any health advantages related to breastfeeding for mothers. When asked why women would continue to breastfeed their child if there are not any assumed health advantages for women, one informant, Magdalena, mother of 7, replied "Because it is the rule and the breastfeeding process is important to the baby."

Few informants could describe colostrum in any detail, including its function and when it was replaced by breastmilk. Although most informants were aware of the nutritive properties of breastmilk, such as vitamins and minerals, none could describe its components such as water, fats, or carbohydrates. All informants declared that a woman's nutrition could affect a mother's breastmilk while very few described drugs, alcohol, or cigarettes as possibly detrimental to breastmilk.

According to all informants, breastfeeding while sick depended on what the mother had. If it were cancer, a mother should not breastfeed because she could pass it on to the baby. If it were only a cold, she could continue to breastfeed.

No informants described their feeding schedule as timed-all practiced demand feeding. Most informants giggled at the question and declared “when the baby is hungry, it is hungry.” Informants also understood that breastmilk should be given to a baby right after birth.

[...It is important also so that the baby can be accustomed to [the mother’s] scent. It enforces the bond between the baby and the mother. The baby also needs to learn how to manipulate the nipple to feed- Maria].

Most informants did not describe any set time to wean a child, declaring that a baby should breastfeed for however long the baby wants. Observations proved that children over 18 months were still breastfeeding, mainly in the evening, as a form of nutritive suckling, where the child is not feeding for nutrition as much as for comfort and enforcement of the bond between mother and child. Although most informants agreed that complementary foods should be introduced at six months, the actual month in which foods were introduced to their child varied.

[...Many people do it early, like at 5 or 6 months, but I did it at 8 months. I did give water throughout the first 6 months. I wanted to give a little even though some people told me that it would interfere with my breastmilk- Ana Lucia].

[...I used Gerber and other soft foods. It is for them to learn flavors. The doctor and my mother said 4 ½ months was a good age to introduce other stuff- Daniseth].

All informants agreed that breastmilk was sufficient alone to feed a baby for six months, and that all mothers could produce milk. A few of the informants, however, reported giving spoonfuls of water to the baby during the first six months in order to keep the baby hydrated because they live in a hotter climate.

Informants were asked how they were able to ascertain that their baby was receiving enough breastmilk. Most replied to check the diapers during the day but most also relied on the baby’s mood to determine whether or not the baby was getting enough nourishment. If the baby was fussy and upset, he was hungry. If the baby was content and relaxed then he was full.

When discussing co-sleeping most informants were in favor and said that they were aware of the potential dangers of smothering the baby but that they used pillows to protect the

baby from being smothered. The main reasons for co-sleeping were to protect the baby from insects and to be closer to the baby because it is easier to care for them and do night feedings.

[... A mother has more control over her baby. My baby is 1 1/2 years old and still sleeps with me. Some mothers make their babies sleep alone. But it is a richer experience to have her close to me when we sleep. I can better protect her. Some mothers want the child out of the bed so she can be intimate with the husband but that is sad. Being close to your parents for however long helps raise a child's esteem as well. When the baby is in another bed it is harder to wake up and attend to her. It is better if she is in the same bed so you can comfort her immediately- Maria]

### ***Attitudes toward Breastfeeding***

When asked about breastfeeding in public all informants declared that breastfeeding is natural and was not embarrassing at all but suggested that it might be for other breastfeeding women for various reasons. All informants report having been exposed to breastfeeding at a young age, and most reported having been breastfed as infants. No informants reported having any negative reaction from friends, family, or strangers at any time when they were breastfeeding in public.

[...It is not embarrassing for me but for some women it is because they do not want to show off their breasts. I knew a lady who would only breastfeed in a bathroom when she was in public!-Lucia]

[...It is natural and they shouldn't be ashamed but some are embarrassed. Some men have issues when their women breastfeed in public because their breasts are exposed- Daniseth]

[It is natural. They have to do it. Because some people criticize if the baby keeps crying and the mother hasn't done anything about it. It is necessary when you are out in public- Cassandra, 37 years old, mother of 7]

All informants had positive attitudes toward breastfeeding, and reported that all women had the capability to breastfeed. They saw breastfeeding as convenient and inexpensive. Informants described formula as unnecessary but all suggested that other women who work outside the home may find formula easier to use. Attitudes toward breastmilk substitutes were all negative.

[... It is not necessary [to use formula if you work]. It is better to pump your milk and leave it to feed the baby. All the women I know who work use formula or artificial milk-Daniseth].

[...Mothers can save her milk in the fridge and the father can feed the baby a bottle of the mother's milk instead of the formula- Lucia, 34 years old, mother of 2].

[...You never know what is in artificial milk or formula... Formula causes diseases and glandular inflammation. The baby gets too full of air and it causes respiratory problems. And there is a lot of preparation for formula. And it is very expensive-Daniseth]

[...Breastfeeding does not cost me anything...I do not have to buy bottles, cans of formula, or anything. I do not even have to boil water- Daniseth]

While all informants reported positive attitudes toward breastfeeding, all declared that breastfeeding was painful for the first few days. Only one informant had any severe pain while breastfeeding because she experienced mastitis for seventeen days:

[...Even though I was in a lot of pain, I continued to breastfeed because it was the best thing I could do for my baby. It was the biggest act of love I could give. The pain passes-Maria].

### ***Social Support***

Most informants declared that breastfeeding was a mother's decision and that the support of a husband or male partner was important. Most agreed, however, that what anyone else in her family or friends had to say about her decision did not matter:

[...You have to include him in the decision too because the baby is his too. He may not want to spend the money on formula and everything that comes along with it- Estella].

[...The parents need to be in agreement on how to feed and raise the children. The family will not be happy if they are not in agreement. What happens when there is no money to buy formula? A lot of time parents get mad at the children and blame them-Daniseth].

[...The support of your companion is important because he is part of the baby's life and because breastmilk is better for the baby he wants the baby and the mom to be happy. There are also fewer fights- Uvaldina]

[...Your husband's support is very important. He has to support your actions because they are his kids too. The woman sometimes has to fight for the wellbeing of her children due to some men's ignorance and that they think we are just showing off our breasts-Maria].

No informant reported her friends to have any significant impact on her decision to breastfeed. Most informants, however, reported that their friends did breastfeed and always displayed positive reaction when the mother was breastfeeding. It is common for a new mother to have a family relative stay at her house, or for her to go and visit a family relative, in order to ease the transition into motherhood. If a mother already has children, however, the family relative will come and stay with her. The family relative is usually her mother or sister.

When asked to describe her social support network, all informants' responses included the husband, or male partner, and her mother.

[...My husband likes that I breastfeed because it saves time and money. Besides, he can help me like saving breastmilk in the fridge or washing my breasts- Daniseth]

[Any time I had a problem I always called my mom and she helped me through it- Estella]

Informants described professional support as doctors or nurses giving information about infant feeding, either breastfeeding or formula feeding. Few informants reported this type of professional support having influenced their decision to breastfeed.

### ***Impact of the Media/the Public***

None of the informants reported that media outlets, such as television, had any impact on her decision to breastfeed. Many had read a little about breastfeeding in various forms of literature, such as the newspaper or pamphlets from the doctor's office. All informants reported having seen formula commercials. All informants reported, though, that at the end of the commercials it was stated that breastmilk was the best nourishment for the baby.

[...At first, yes, the commercialization of formula is high but they always say that breastmilk is better. It is contradictory. It is just like smoking cigarettes, or drinking beer. You know it is bad for you, it can cause cancer, but people still do it-Maria]



[...Breastfeeding is not presented negatively because everyone knows that breastmilk is the best and very important for the baby. The commercials always say that a woman's milk is the best. Television does not affect a mother's decision to breastfeed because it is her decision to make-Lucia]

Even though all informants declared that no media had affected their personal decision to breastfeed, they unanimously agreed that it could possibly impact some mothers.

Informants were asked why people use formula even though it is reported to be bad for the baby. One Costa Rican informant declared:

[...Because of the influence of the US women, because they use formula and bottles more. Baby showers in Panama...there are always tons of bottles as presents, in Costa Rica there are not. Depends on your own culture but the influence of other cultures is important-Maria]

All informants had seen women breastfeeding in public. Many had witnessed her mother, or other family relatives, breastfeeding. None of the women reported ever having negative reactions from anyone while she breastfed or having witnessed negative reactions from others toward other women breastfeeding.

A majority of informants had witnessed cross-nursing and some had breastfed others' infants. Informants who reported participating in cross-nursing reported having breastfed at least one other woman's baby. When asked to describe what conditions warrant cross-nursing, all informants declared that the woman must first have an established friendship and trust with the woman. Cross-nursing only occurs when the biological mother is not available at the moment to breastfeed and the baby is crying for its mother. Only one informant reported having issues with cross-nursing as she says that each woman's milk is different and her milk is the only milk her baby should receive, but if the baby needs to be comforted then it is okay.

## ***Impact of Hospital Policies and Practices***

### *Prenatal Care*

All informants had participated in prenatal classes provided at no cost at various clinics. Most informants reported hearing a small presentation about breastfeeding while they were waiting to give birth that included how to position the baby and prevent problems like clogged milk ducts. Some informants reported discussing breastfeeding as her main infant feeding decision with healthcare professionals prior to giving birth. Treatment at these facilities varied. Some informants reported feeling that they were a “number” while waiting to be seen by doctors during prenatal visits. They felt that these doctors were only there to make money and were not concerned about caring for them.

### *Delivery and Postnatal Care*

All informants gave birth in a hospital, either in an urban center in Panama or Costa Rica. All reported normal deliveries. Few reported complications, such as high blood pressure, after delivery. All informants reported ‘rooming-in’ with her baby, and initiated breastfeeding while at the hospital. Most informants first breastfed within a half-hour of birth, while a few waited several hours to initiate breastfeeding. One informant reported having to wait to initiate breastfeeding for at least twenty-four hours because the nurses told her that she was not strong enough to begin breastfeeding because of low blood pressure. Her infant was given a bottle of formula until she was ready to breastfeed.

All informants reported that the maternity health staff supported her decision to breastfeed, and that the nurses assisted in latching the infant on if needed. Some informants, however, reported that some nurses, typically Panamanian nurses, seemed ‘bothered’ when asked to help because they were busy attending to other patients. Informants reported that

those nurses who had children understood the situation better and helped out more than those that did not have children. A majority of the informants stated that nurses helped with several tasks including helping bathe the baby, dressing the baby, and bringing food to the mother. None of the mothers were given discharge packs when they left the hospital nor did they receive formula samples while at the hospital.

## **DISCUSSION**

### ***Prenatal Education***

In Panama, only primary schooling up to the 6<sup>th</sup> grade is required and tuition is free. Not surprisingly, although elementary students are taught basic health education, there is no emphasis on breastfeeding. In adulthood, most rural Panamanians can read, but not all read well.

All informants reported having participated in prenatal classes before giving birth that involved presentations about breastfeeding. These presentations were audio-visual and addressed *how* to breastfeed, including breastfeeding positions and proper latch-on. These presentations do not address which factors can affect breastmilk, and those factors that do not. The findings suggest that the women understood some fundamental factors that affected breastmilk and its supply, such as frequent feedings and medicines, but erroneously reported some factors, such as breast size and poor nutrition and eating habits, to negatively affect milk production. Understanding the fundamental factors that affect breastmilk and its supply are important so as to better prepare mothers and prevent lack of initiation of breastfeeding and/or early cessation.

### ***Breastfeeding benefits***

The present findings suggest that informants are highly aware of the health advantages of breastfeeding for the infant and describe it as the best nourishment they can give their babies. All informants explained that breastfed infants are less sick than formula fed infants, and reported that none of their children were afflicted with diarrhea or ear infections. The data also reveal that few informants were aware that breastfeeding is beneficial for mothers and were unclear about maternal health benefits from breastfeeding other than emotional ones. In addition to the previous suggestion that prenatal education highlight the factors that affect breastmilk, prenatal education should also emphasize and clarify the maternal benefits of

breastfeeding, such as reduced risk of cancers, suppressed ovulation, and increase in the loss of post-partum weight, as a potential incentive for mothers to continue breastfeeding.

### ***Maternal attitudes***

The maternal attitudes conveyed in both informal and semi-structured interviews revealed that women have positive perceptions about breastfeeding. None of the informants reported doubts about their milk supply, fear of painful breastfeeding, fear of their nipples cracking or bleeding, or doubts about their child's feeding ability. Furthermore, all informants declared that breastfeeding was healthier than formula feeding, much more convenient than bottle feeding, and fostered a bond with their child that could not be attained through bottle feeding. Also, women did not feel restrained by breastfeeding. These attitudes toward breastfeeding affected the breastfeeding duration lengths in this study as all informants continued breastfeeding past six months until at least ten months to 33 months.

### ***Support networks***

Strong support networks have been documented as fulfilling an important role in the infant feeding decision process. This Panamanian data suggest that the informants relied heavily on informal support sources, such as the husband/partner, and the mother, rather than formal sources of support such as health professionals. The women increasingly reported that infant feeding is the woman's decision to make but all reported their husband/partner as being involved in the decision because infant feeding is something that involves the entire family. Although all women acknowledged that the men could not breastfeed and were not the sources of food, fathers and partners could do other activities for the baby such as change diapers, dressing, bathing, playing, etc., all of which are essential for the care of an infant/toddler. The data suggest the partner is a critical aspect of the infant feeding decision process and therefore illustrates the importance of including a focus on the paternal role in infant feeding in any breastfeeding campaign.

Also, the informant's mother was of exceptional importance because she was the source of knowledge and practice. All women had been breastfed as babies and had grown up around women breastfeeding. Studies indicate that women who have positive exposure to breastfeeding, including being breastfed as babies, are more than likely to breastfeed when they are mothers [33, 40-42].

### ***Early supplementation***

Although these data suggest that early supplementation did not affect overall breastfeeding duration rates, it did affect exclusive breastfeeding durations. Although all informants breastfed their index child for at least ten months, discontinuing breastfeeding between ten months and 33 months, few informants breastfed their child exclusively for at least six months before introducing complementary foods and liquids. The informants that introduced complementary foods before six months replied they did so because the baby needed to learn flavors of other foods and needed water because it was so hot and the mother did not want her baby to dehydrate. Efforts in breastfeeding campaigns and prenatal education classes need to address the unnecessary, and potentially harmful, addition of water or other liquids to a baby's diet of exclusive breastmilk during the first six months because breastmilk provides a sufficient amount of water.

Furthermore, all informants agreed that six months was the appropriate age to introduce complementary foods and liquids, but the actual age at which they introduced them to the baby varied from before six months (as early as one month) to eight months. Mothers need to be aware that adhering to a goal of six months to introduce foods and other liquids to the baby is essential for the baby's growth and health. Introducing any food or liquid before six months can be potentially dangerous. At six months the baby requires additional elements that are found in sources other than breastmilk. Waiting until eight or nine months to introduce complementary foods to a baby, therefore, can result in a vitamin or mineral deficiency.

## ***Hospital practices***

The data suggest that the hospital practices the informants experienced were conducive to breastfeeding. All but one index child involved in this study were given only breastmilk, no teats or pacifiers, and were brought to the mothers within one half-hour of birth to initiate breastfeeding. Nurses assisted all informants to initiate breastfeeding and instructed them on how to maintain breastfeeding. Infants remained with the mother (“rooming-in”) which encouraged on-demand feeding. Informants were taught the benefits of breastfeeding for the baby and how to breastfeed in an audio-visual presentation prior to giving birth. Despite some negative feelings toward childless nurses and disinterested doctors, most informants had overall positive hospital experiences and initiated breastfeeding.

None of the informants were given discharge packs or gifts, such as diaper bags with formula samples. Often times, the mere presence of a product or service enables a change in behavior or previous decision [32]. For instance, mothers can become frustrated with breastfeeding if the latch-on or position is incorrect. Mothers who may have formula samples at home may be more inclined to use them if the frustration becomes too great rather than consulting her mother or a doctor for advice. This is also evident with women who give natural birth. For instance, natural pain management is not often promoted within U.S. hospitals and women giving birth are often offered an epidural. Interviews conducted with women who have given natural birth in birthing centers in the United States, where natural pain management is advocated, say they were glad the epidurals were not available because there came a point when the pain became tremendous and they would have probably opted for one. Similarly, women who are determined to exclusive breastfeed, may be more apt to opt the “easier” route when the pain (or frustration) became too much, if formula is on-hand.

The hospitals at which the women delivered practice seven of the steps even without having the “Ten Steps to Successful Breastfeeding” as a formal guideline. As evident in the

results, the practices impacted the informant's successful breastfeeding initiation. As stated previously, hospital practices have a large influence on breastfeeding initiation and duration. Therefore, it is apparent that these Panamanian hospitals play a large role in successful breastfeeding initiation and efforts should be made to recognize these hospitals for their practices and encourage them to strive for a *Baby Friendly Hospital* standing.

### ***Impact of the Media/Public***

All informants reported having breastfed in public without ever receiving any negative reactions. When asked this question, the author received many a raised eyebrow because they did not consider breastfeeding in public an issue or hindrance to breastfeeding. As reported, one woman even laughed when describing a woman she knew that would only breastfeed in a bathroom when in public. Even though some of the informants reported that they had never been shy to breastfeed in public they agreed that there certainly are women who are shy to publicly breastfeed- mainly young, new mothers. However, these informants declared that new, young mothers should not be embarrassed because breastfeeding is a natural activity. Because breastfeeding is the cultural norm, women are encouraged to publicly breastfeed and without fear of public retaliation or negative reactions, which prove detrimental to the duration and/or success of breastfeeding elsewhere [11, 30].

Evidently, the data suggest that the media is not a defining influence in the infant feeding decision. Although all informants reported having seen commercial formula propaganda, none of them felt that it was an influence on their decision as the formula commercials reaffirmed the dominant ideology that a mother's milk is the best for baby at the end of every commercial.



## ***Culture and Residence***

According to Good-Mojab (2000) [15], Latino cultures are considered collectivistic because people often have obligations to others and fulfill social roles that effectively contribute to the entire family, rather than an individualistic culture where roles are filled to satisfy a personal goal or desire. With this classification, informants focused more on what was best for the baby and family rather than how breastfeeding affects her personal self. Also, the informant's infant feeding decision was done collectively, despite her claims to an individual decision, because she relied heavily on her male partner and mother.

The data suggest a conflict between collectivistic and individualistic culture values within the Panamanian culture. While the informant declares infant feeding as the woman's choice, portraying the individualistic values of personal choice and individual interests, she still regards the infant feeding decision a group decision because of the declared necessity of the involvement of her partner and mother, which is evident of classic collectivistic cultures.

Furthermore, in collectivistic cultures "elders" are responsible for knowledge transmission, often in oral form. The mothers of the informants in the study were often sought to assist with breastfeeding rather than information being sought in textbooks or other audio-visual/technological sources as evident in individualistic cultures [15].

The informant's attitudes were positive toward breastfeeding and they did not view breastfeeding as a burden or an interference with their lives. Informants never declared a desire to "get away" from their children to rest. The informant viewed herself and her infant as a unit, dependent on one another, rather than two separate individuals, which indicates that the individualistic value of independence is not held high during infancy and early childhood.

Time is not considered an important value in Panamanian culture. Schedules are always flexible; a meeting that is scheduled to start at 2:00p.m. usually will begin at 3:30 p.m. ,

otherwise known as *la hora Panameña*, or the Panamanian hour. Because time is not of the essence and a strict adherence to schedules is not enforced or culturally embraced, babies are fed at anytime, anywhere. This indicates that breastfeeding is more easily integrated into a woman's daily routine and life because no feeding schedules must be maintained.

Despite UNICEF reports that breastfeeding rates are relatively low in Panama, the results of this study demonstrate that breastfeeding is the dominant infant feeding practice in rural areas. This affirms Dettwyler's statement that rural females breastfeed for longer durations than their urban counterparts. Many of the informants declared formula feeding as costly and outside the realm of their traditional values, which reiterates Mahler's [45] statement regarding rural females tendency toward breastfeeding discussed earlier.

According to Dettwyler (1988) [31] developing countries exhibit urban trends that move away from breastfeeding and more toward the use of infant feeding bottles and/or formula. In Panama there is an increasing rural exodus to urban areas at an annual rate of 2.7% [17]. These urban areas have much more Western influence in part due to the military occupation by the United States, and a salient individualistic cultural revolution. The urbanization of Panama threatens a potential loss of collectivistic traditional values that affect breastfeeding.

### ***Formal Employment***

Even though formal employment was not a factor in the present study, it is important to note that an increase in female employment occurs in urban areas of Panama for myriad reasons. Currently, women in the formal employment sector were observed to work in retail, clerical, and administrative positions, including government agencies. As indicated in numerous studies, breastfeeding cessation is often associated with a return to or start of formal employment [30, 36, 47-48]. The breastfeeding rates of urban women pale in comparison to

those of rural women, and this can be said not only for Panama but for many developing countries.

In order to maintain the cultural practice of collectivity and the continuance of the mother/infant unit, the formal employment sector should make the workplace favorable for lactation and breastfeeding. Workplaces should add daycare centers that have lactation rooms, provide appropriate space to pump milk, have refrigeration available to store pumped milk, and increase maternity leave benefits.

Informants reported that a woman does not have to quit breastfeeding just because she is working and that she can pump her milk and give it to the baby in a bottle, rather than resorting to formula use. Continuing breastmilk pumping and feeding it to infants continues health benefits for mothers and babies. A mother is not deserting the traditional value of doing the best thing possible for her child and this puts her mind at ease. Babies still receive his mother's milk but the separation of the infant from the mother reduces the bond maintained by breastfeeding. But, if a mother is pumping, which maintains her milk supply, she can continue night feedings and breastfeed whenever she is available, thereby not abandoning the emotional bond with her infant that is regarded as so important in the Panamanian culture. Furthermore, mothers will miss less time at work because her breastfed infant will spend less time being sick, meaning better attendance and productivity.

### ***Limitations***

This study has limitations. Firstly, as with any qualitative investigation, one might question the study's reliability and validity in terms of generalizability. Ethnography may provide a depth of understanding lacking in other investigative approaches, however, the depth comes at the cost of standardized results, and leaves open the possibility of idiosyncratic responses, and loss of researcher control [49]. This study mitigates some common problems

because it utilizes information collected from two years of ethnographic fieldwork, including numerous informal interviews in addition to semi-structured interviews. The author triangulated qualitative findings by asking similar questions to multiple informants, by having informal interviews with individuals as well as groups of women on similar topics of discussion, and by investigating the topic with local health professionals at host country health agencies. Because many of the factors that influence breastfeeding initiation and duration are rooted in cultural beliefs and practices, the aforementioned factors are not necessarily generalizable over other populations [15]. Nevertheless, these ethnographic results are intended as an important first step in finding the nature of breastfeeding and weaning decisions and barriers in rural Panama. Additional demographically sophisticated research would further elucidate variables that affect local breastfeeding practices.

## CONCLUSIONS

The reporting of suboptimal infant feeding practices in a developing country such as Panama is not a new trend. According to Hadley [50], very few of the infants in the world are actually fed according to the guidelines espoused by the World Health Organization. The reasons for the prevalence of suboptimal feeding are not entirely understood. Despite the ubiquity of suboptimal feeding throughout developing countries, however, optimal infant feeding in Panama could be achieved through a more in-depth prenatal education curriculum, mass media campaigns that focus on the paternal role and influence on infant feeding, and a national breastfeeding policy that focuses on providing supportive breastfeeding practices in hospitals. Furthermore, collaborative efforts through host country agencies and international entities, such as the Peace Corps, can provide lactation consultant opportunities to preserve traditional breastfeeding knowledge and practices.

Although most women participate in prenatal education in Panama, the information provided on breastfeeding is basic. A more in-depth curriculum should be developed that emphasizes the breastfeeding process, the properties of breastmilk and the factors that affect its supply, and the benefits of breastfeeding for both the infant and mother. Because breastmilk pumping and subsequent administration to infants is a familiar alternative to breastfeeding among women in Panama, prenatal education should address how to pump and store milk correctly. Affordable and readily available breast pumps should be made a priority to encourage this breastfeeding alternative. Prenatal education should cover all infant feeding options, advantages and disadvantages of them, and the possible conditions that precipitate breastfeeding alternatives, such as employment outside the home. Prenatal education courses should also encourage paternal participation and involvement as well.

Because mothers rely heavily on informal sources of support, and these sources of support have a high influence on successful breastfeeding, breastfeeding promotion campaigns

in Panama should focus on highlighting and emphasizing the paternal role in the infant feeding process. Even though media was not reported as significantly affecting infant feeding decisions in this study, media promotions do affect public health decisions and initiatives, as previously stated. Audio-visual sources could be created that show a woman breastfeeding a child while her partner stands over her shoulder, with a supportive hand behind the head of the baby or around the woman, with a tag line such as “breastfeeding is good for the entire family”, rather than a woman breastfeeding alone, which is often the picture displayed in Panama. In the author’s experience facilitating health education presentations throughout Panama, attention spans improved when pictures were used rather than text.

Because hospital practices greatly influence breastfeeding initiation and duration, the Panamanian hospitals that employ positive breastfeeding practices described in this study should be encouraged to strive for the *Baby-Friendly Hospital* standing. The Ministry of Health and APLAFA, two government agencies in Panama directly responsible for promoting breastfeeding, should collaborate with hospitals to maintain positive breastfeeding practices and develop a national breastfeeding policy for hospitals. These respected agencies should also train maternity staff in conducive breastfeeding practices and information so as to ensure accurate information dissemination to mothers, and strict adherence and enforcement of the national hospital breastfeeding policy. Because the national hospital breastfeeding policy would be heavily based on the principles of the *Baby-Friendly Hospital Initiative*, hospitals would be awarded the BFH standing, of which the whole nation can be proud. In addition, hospitals and health agencies can annually review breastmilk substitute policies and regulations, as well as have established committees at each hospital to monitor and enforce regulations.

In order to prevent the loss of knowledge transmission from “elders”, or experienced mothers, health agencies and area hospitals could partner with entities such as the United States Peace Corps or La Leche League International with specific health project goals of establishing

community groups that train women to become lactation counselors. Having knowledgeable sources such as the counselors is especially crucial as infants approach the four month mark because initiation is not as problematic in this culture as maintenance and duration, at least in rural areas. This is also an opportunity to increase the livelihoods of some impoverished populations, especially the indigenous groups in Panama who do have high rates of breastfeeding.

Further qualitative research opportunities include comparisons of rural and urban women's breastfeeding experiences, which will provide a more conclusive evaluation of the factors that affect breastfeeding initiation and duration. Urban studies will also illuminate different lifestyles that potentially impact breastfeeding duration as well as potentially verify the presence and subsequent retention of traditional values in urban settings and their impact on breastfeeding factors. Studies conducted in both rural and urban areas will also provide an accurate reflection of current breastfeeding rates in Panama.

In addition, the traditional culture of Panama is one of breastfeeding. The qualitative studies that identify factors that affect breastfeeding initiation and duration are important to combat the trend of the loss of traditional values in urban settings. The author's observations of breastfeeding patterns in rural and urban settings revealed that the loss of traditional values is almost immediate. Once a mother moves from the rural to the urban area, she immediately adopts a more Western lifestyle in using infant formula and a crib and forgoes the traditions of breastfeeding and co-sleeping.

This study identified the factors that influence breastfeeding initiation and duration to provide necessary data to Panamanian public health agencies to develop culturally appropriate interventions to increase the support for breastfeeding. Panama already invests human and monetary resources for breastfeeding advocacy in some public health programs and strategies. Efforts to revamp the focus on prenatal education, the paternal role in the infant feeding

process, hospital practices and the creation and enforcement of a national breastfeeding policy, proper training of healthcare staff, and creation of improved breastfeeding accommodations in the workplace, will result in higher breastfeeding rates, which benefit the Panamanian family, culture, and the nation.

#### **COMPETING INTERESTS**

The author declares that she has no competing interests.



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## **Appendix A: Consent form (English Version)**

### *Washington State University Consent Form*

#### **Assessment of the knowledge, attitudes toward, and the practice of breastfeeding among rural Panamanian women**

##### **Researchers:**

Co-investigator: Alexandra Hayes

Phone:(011) (507) 6432-5989

Principal investigator: Dr. Marsha Quinlan

Phone:(001) (509) 335-5405

##### **Researchers' statement**

We would like to request your participation in this study. The purpose of this consent form is to give you the necessary information you need to help you decide whether or not you want to participate. You can ask questions about the purpose of this research, the possible risks and benefits, your rights as a volunteer or whatever item with respect to this study that is not clear. Once all of your questions have been answered, you can decide if you want to participate or not. This process is called "informed consent".

##### **Purpose and Benefits**

The objective of this study is to explore the knowledge about, attitudes toward and the practice of breastfeeding in order to identify the factors that influence infant feeding decisions. There are currently no programs that promote breastfeeding in Panama. Because of low rates of breastfeeding among Panamanian women this research proposes to identify the influential factors of infant feeding decisions in order to plan community breastfeeding support interventions that are culturally appropriate.

The expected benefits of your participation in this study include a complete compilation of your knowledge of, attitudes toward, and practice of breastfeeding that will be included in a master's thesis that will be presented before a panel of professors at Washington State University. After the presentation of the thesis it will be submitted for publication in an academic magazine. Also, the compilation will be submitted to the Ministry of Health of Panama and other health agencies that are working in Panama. The indirect benefits include your contribution to the world's understanding of the breastfeeding process and the influences of infant feeding decisions of mothers in Panama, which can be applied in other Latin American countries.

##### **Procedures**

This study will begin with a questionnaire in order to obtain your personal information, your knowledge and attitudes about breastfeeding. This questionnaire should not take more than one hour and can be conducted wherever you would like, such as your house or my house. As a suggestion, this interview

needs to occur in an area without many distractions in order to provide you the time to concentrate and complete the questionnaire.

In addition to the initial questionnaire it is possible that you will be contacted again in order to participate in another interview in which I will questions you about your practice of breastfeeding, the impact of the media, and the help/ information you received in the health centers and hospitals on your infant feeding decision. For this interview we can meet in a place and at a time that is convenient for you. This interview should not longer than two hours. With your permission I would like to record our interview. These interviews will be kept in a safe, secure location and used only for this research. I am the only person who will know your identity and will not share this with anyone.

You have the right to refuse to answer at any time without any consequences.

**Risks, stress, and discomfort**

Your participation in any type of activity with respect to this study is completely confidential because your identity will be protected. The information you provide me will be used in my thesis and in a general report for the Ministry of Health in Panama. If this study is published, your identity will still be protected.

It's important that you remember that there is a possibility that you may not know an answer to a certain question. There is no problem if you answer that you do not know. Also, if you feel uncomfortable with the question you can choose not to respond thereby ending the interview.

**Please Remember:**

All of the data given during the interviews will be confidential and your identity will be protected. The data will be used for my master's thesis.

You have the right to decline to participate in this research and can withdraw from this research at any time you wish.

You will not be charged or will be paid any money to participate in this study. All of the information is voluntary and will be used only for the purpose of this study.

---

Printed name of researcher

Signature of researcher

Date

**Subject's statement**

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have general questions about the research, I can ask the co-investigator listed in the study. If I have questions regarding my rights as a participant, I can call the Washington State University Institutional Review Board at (001)(509) 335-9661. This project has been reviewed and approved for human participation by the WSU IRB.

---

Printed name of subject

Signature of subject

Date

**APPENDIX B: Questionnaire (English version)**

**The knowledge of and the attitudes toward breastfeeding of rural women in Panamá**

Thank you for agreeing to complete this questionnaire. All of your responses in this questionnaire are confidential and will be destroyed in four years (in 2012). Your identity is unknown. Please, do not write your name or identification number anywhere in this questionnaire.

In order to complete this questionnaire, please tell the investigator your response for each question. If you do not know, please try to guess the response.

Participant's chosen pseudonym: \_\_\_\_\_

Investigator: \_\_\_\_\_



Where the interview took place:

- the participant's house
- the investigator's house
- the school
- other\_\_\_\_\_

Date: \_\_\_\_\_

Number\_\_\_\_\_

## Part 1: Personal Information

### 1. Gender

- male
- female

### 2. Age

- < 20 years
- 20-25 years
- 26-30 years
- 31-35 years
- 36-40 years
- > 41 years

### 3. Marital Status

- Single
- With a partner or married

### 4. Birth place

- Panamá
- Other \_\_\_\_\_

### 5. Language

- Spanish
- Other \_\_\_\_\_

6. Religion

- Catholic
- Evangelical
- Other \_\_\_\_\_

7. Education

- Illiterate
- Has primary instruction (up to the 6th grade)
- Has secondary instruction (up to the 6th year in high school)
- Has received high school diploma
- Has university instruction
- Has received a university degree
- Other \_\_\_\_\_

8. Occupation

- has a job
- housewife

9. Monthly household income

- < B./100.00
- B./101.00- B./ 150.00
- B./151.00- B./200.00
- B./201.00- B./250.00
- B./251.00- B/300.00

>B./301.00

10. Are there other people, not including your child/children, that live with you in your house? *(If yes is marked, continue to question #11; if no is marked continue to question #12)*

Yes

No

11. If there are other people that do not include your children living in your house mark all that apply.

father of the children

partner

grandfather

grandmother

aunt

uncle

niece(s) or

nephew(s)

cousin(s)

brother(s)

sister(s)

other \_\_\_\_\_

12. Mother's age at first birth

<15 years

15-18 years

19-24 years

25-30 years

31-35 years

> 36 years

13. Number of births

1

2

3

4

5

> 5

14. Number of breastfed children

1

2

3

4

5

> 5

15. Previous breastfeeding experience

None (primiparous)

None (multiparous)

Previous breastfeeding <6 months

Previous breastfeeding  $\geq$  6 months

17. How would you describe the type of breastfeeding your child has received/ is receiving ( *if “exclusive breastfeeding” was marked, continue to question 18; if “no” was marked, continue to question 19* )

- exclusive breastfeeding**- the baby receives only breastmilk; no other liquids or solid food are given
- predominant breastfeeding**- the baby receives primarily breastmilk but may have received water, tea, or fruit juices, etc.
- partial breastfeeding**- the baby receives breastmilk in combination with formula or other form of breastmilk substitute
- artificial feeding**- the baby receives only breastmilk substitutes or other artificial milk formula

18. Total months of **exclusive breastfeeding**- the baby receives only breastmilk; no other liquids or solid food are given

- <1 month
- 1-3 months
- 4-5 months
- 6 months
- >6 months

19. How old was the baby when he or she first received solid foods?

- <1 month
- 1-3 months
- 4-5 months
- 6 months
- >6 months

20. Do you use family planning methods? ( *If the answer is “yes” continue to question 21*).

- Yes

No

21. What are the family planning methods that you use? (*mark all that apply*)

condoms

birth control pills

other \_\_\_\_\_

## Part 2: Knowledge assessment

Instructions:

I will read to you some things said about breastfeeding. Please, tell me if you agree, disagree, or are neutral.

1. Using breastmilk substitutes is the best for the baby	Agree	Neutral	Disagree
2. The quality of breastmilk substitutes is equal to the quality of breastmilk	Agree	Neutral	Disagree
3. Breastmilk substitutes have immunological factors (they help to protect the baby against diseases)	Agree	Neutral	Disagree
4. Exclusive breastfeeding for babies is said to be when they have received artificial milk and breastmilk	Agree	Neutral	Disagree
5. The composition of breastmilk is adapted to the baby's needs	Agree	Neutral	Disagree
6. The baby should receive only breastmilk from birth until six months	Agree	Neutral	Disagree
7. The baby needs to drink water in addition to breastmilk during the first months	Agree	Neutral	Disagree
8. The mother needs to give the baby complementary foods and drinks before six months because breastmilk is not sufficient to feed the baby	Agree	Neutral	Disagree
9. The benefits of breastfeeding for babies depend on the amount of breastmilk the baby receives	Agree	Neutral	Disagree
10. The baby should be weaned when the mother feels the baby is ready	Agree	Neutral	Disagree
11. In order to wean the baby, it is better to do it little by little during one month	Agree	Neutral	Disagree
12. Breastmilk protects the baby from digestive and respiratory infections (of the stomach and lungs)	Agree	Neutral	Disagree
13. Breastmilk prevents diarrhea and constipation	Agree	Neutral	Disagree
14. The mother's first milk is a food rich in antibodies that increase the recently newborn's health defenses	Agree	Neutral	Disagree
15. The mother's first milk is replaced with breastmilk two or three days	Agree	Neutral	Disagree



after giving birth			
16. The mother needs to breastfeed one hour after the birth of the baby	Agree	Neutral	Disagree
17. It is better if the baby is in the same room as the mother at the hospital	Agree	Neutral	Disagree
18. It is better if the baby sleeps with the mother in the same bed	Agree	Neutral	Disagree
19. Breastfeeding does not reduce the risk of breast cancer	Agree	Neutral	Disagree
20. Breastfeeding helps the mother lose postpartum weight	Agree	Neutral	Disagree
21. Breastfeeding helps to space pregnancies	Agree	Neutral	Disagree
22. Breastfeeding helps retract the uterus after giving birth.	Agree	Neutral	Disagree
23. The mother's nutrition does not affect the breastmilk	Agree	Neutral	Disagree
24. The size of the mother's breasts affects the production of breast milk	Agree	Neutral	Disagree
25. Emotions could affect the composition of breastmilk	Agree	Neutral	Disagree
26. The supply of breastmilk is affected by how many times the baby breastfeeds	Agree	Neutral	Disagree
27. The majority of newborns need to breastfeed every two to three hours	Agree	Neutral	Disagree
28. A strict breastfeeding schedule is the best for the baby	Agree	Neutral	Disagree
29. When the baby is sick he or she should not receive breast milk	Agree	Neutral	Disagree
30. A sick mother should not breastfeed her baby, even when she is not taking medicines	Agree	Neutral	Disagree
31. Medicines can pass through the breastmilk to the baby	Agree	Neutral	Disagree
32. The mother needs to stop breastfeeding when she returns to work or school	Agree	Neutral	Disagree
33. Breastmilk changes to satisfy the nutritional needs of the baby as he grows	Agree	Neutral	Disagree

### Part 3: Attitudes toward breastfeeding

Instructions:

I will read to you some things said about breastfeeding. Please, tell me if you agree, disagree, or are neutral.

1. Breastfeeding is healthier for the baby than artificial milk	Agree	Neutral	Disagree
2. The act of breastfeeding is an emotional experience	Agree	Neutral	Disagree
3. Breastfeeding is painful	Agree	Neutral	Disagree
4. Breastfeeding creates a strong bond between mother and child	Agree	Neutral	Disagree
5. Breastfeeding increases the mother's self-esteem	Agree	Neutral	Disagree
6. Breastfeeding saves on health expenditures	Agree	Neutral	Disagree
7. Bottlefeeding with formula or other breastmilk substitute is more expensive than breastfeeding	Agree	Neutral	Disagree
8. It's embarrassing when a woman is breastfeeding in public	Agree	Neutral	Disagree
9. Mothers need to breastfeed only in discreet locations	Agree	Neutral	Disagree
10. It is unacceptable to breastfeed in front of other people	Agree	Neutral	Disagree
11. It is important that the companion or husband supports the woman's decision to breastfeed	Agree	Neutral	Disagree
12. It is important that family members support the woman's decision to breastfeed.	Agree	Neutral	Disagree
13. It is important that the people around the mother support her so that she can breastfeed successfully	Agree	Neutral	Disagree
14. Breastfeeding is a natural activity	Agree	Neutral	Disagree
15. The breast is sexually attractive	Agree	Neutral	Disagree
16. Breastfeeding is convenient	Agree	Neutral	Disagree
17. Bottlefeeding with formula or other breastmilk substitute is more convenient than breastfeeding	Agree	Neutral	Disagree
18. Bottlefeeding with formula or other breastmilk substitute allows the	Agree	Neutral	Disagree

partner or husband to help			
19. Breastfeeding requires a special skill	Agree	Neutral	Disagree
20. Breastfeeding provides more freedom for the mother	Agree	Neutral	Disagree
21. Breastfeeding improves the appearance of the breasts	Agree	Neutral	Disagree
22. The baby enjoys the breast more than the bottle	Agree	Neutral	Disagree
23. Breastfeeding does not provide sufficient milk for the baby	Agree	Neutral	Disagree
24. Breastfed babies are happier than babies that are bottlefed with formula or other types of artificial milk	Agree	Neutral	Disagree
25. The histories of my friends have helped me decide if I should breastfeed or not	Agree	Neutral	Disagree
26. The media presents breastfeeding as something negative	Agree	Neutral	Disagree

*Thank you for your participation!!!!*

## **APPENDIX C: Semi-structured interview guide (English version)**

### **Semi-structured interview guide**

**GOAL:** to explore the knowledge of and the attitudes toward breastfeeding, the practice of breastfeeding, and the impact of media and hospital policies on the infant feeding decisions of rural Panamanian women with the purpose of identifying the most influential factors so as to recommend and plan culturally appropriate community interventions to increase the support of breastfeeding.

#### **A. Personal information**

- ◇ Gender
- ◇ Age
- ◇ Marital status
- ◇ Birthplace
- ◇ Language
- ◇ Religion
- ◇ Education
- ◇ Occupation
- ◇ Monthly household income
- ◇ Length of duration in community
- ◇ Member of the family that live in the house with the mom
  - Number of women and their ages and occupations
  - Number of males and their ages and occupations

#### **B. Knowledge of breastfeeding**

1. What are the benefits and advantages of breastfeeding for the baby?
2. What are the benefits and advantages of breastfeeding for the mother?
3. What are the disadvantages of breastfeeding for the baby?
4. What are the disadvantages of breastfeeding for the mother?
5. When is the best time to begin breastfeeding?
6. How many months of breastfeeding is best for the baby?
  - a. Why?
7. How many times each day does a baby need to breastfeed?
8. What do you think is the composition of breastmilk?
9. What is colostrum?
10. What are the benefits of colostrum?
11. What factors affect breastmilk?
12. When is it better to introduce complementary foods to the baby?

#### **C. Attitudes toward breastfeeding**

1. How do you feel about the use of artificial milk/formula for babies?
2. How do you feel about breastfeeding for babies?
3. Do you believe that breastmilk is sufficient to feed a baby? Why?
4. What are the factors that have influenced your attitudes toward breastfeeding?
5. What do you think about women breastfeeding in public?
6. What do you think about babies sleeping with their mother in the same bed?
  - a. When are the conditions appropriate?

#### **D. The practice of breastfeeding**

##### **i. Family history and the practice of breastfeeding**

1. Were you breastfed as a baby?
  - a. If the answer is “yes”, For how long?
2. How old were you when you had your first child?
3. When did you decide how to feed your child?
4. How many children do you have?
  - a. What are the ages of your children?
5. How many of your children were breastfed?
6. When did you breastfeed your children for the first time?
7. What is your previous breastfeeding experience?
8. Did you have/ do you have problems breastfeeding? Describe the problems if the women experienced problems.
  - a. If there are problems, ¿Do you have any home remedies for the related problems of breastfeeding?
9. How much time total did you breastfeed your children?
10. How would you describe the method of breastfeeding used or that you are using with your baby/child? Also, fill out accompanying timeline.
  - i.  **exclusive breastfeeding**- the baby receives only breastmilk; no other liquids or solid food are given
  - ii.  **predominant breastfeeding**- the baby receives primarily breastmilk but may have received water, tea, or fruit juices, etc.
  - iii.  **partial breastfeeding**- the baby receives breastmilk in combination with formula or other form of breastmilk substitute
  - iv.  **artificial feeding**- the baby receives only breastmilk substitutes or other artificial milk formula
11. How did you integrate breastfeeding in your daily life?
  - a. If she is still breastfeeding: How do you integrate breastfeeding in your daily life?
12. Does your baby have ear infections?
13. Does your baby have episodes of diarrhea?
14. What did you do to help the baby breastfeed?
  - a. If she is still breastfeeding: What do you do to help the baby breastfeed?
15. How would you describe the feeding schedule for your baby?
16. How did you know if your baby was receiving sufficient breastmilk?
  - a. If she is still breastfeeding: How do you know if your baby is receiving sufficient breastmilk?
17. Did you avoid certain types of food or beverages while you were pregnant?

18. Did you avoid certain types of food or beverages alter living birth?
19. Did you avoid certain activities alter living birth?
20. When did you resume activities at your house?
21. Did you use family planning methods after living birth?
  - a. If the answer is “yes”: What were the methods used?

## **ii. Artificial milk/ other types of breastmilk substitutes**

1. When did you use artificial milk or other types of breastmilk substitutes?
  - a. If she is still breastfeeding: When do you use artificial milk or other types of breastmilk substitutes?
2. ? How does the baby receive the artificial milk or other types of breastmilk substitutes?
  - a. If she is still breastfeeding: How does the baby receive the artificial milk or other types of breastmilk substitutes?

## **iii. Weaning**

1. When did you introduce beverages other than breastmilk to the baby?
  - a. If she has not introduced beverages: When do you think you will give beverages other than breastmilk to the baby?
2. When did you introduce foods other than breastmilk to the baby?
  - a. If she has not introduced foods: When do you think you will give foods other than breastmilk to the baby?
3. When did you stop breastfeeding?
  - a. If she is still breastfeeding: When do you plan on weaning the baby?
  - b. If she has stopped breastfeeding: What were your reasons for stopping?
4. What did you do to wean the baby?
  - a. If she is still breastfeeding: What do you think you will do to wean the baby?

## **iv. Social Support**

1. What were the factors that influenced your decision on how to feed your baby?
2. What were the factors that influenced your decision to breastfeed your baby?
  - a. If formula feeding applies to the woman: What were the factors that influenced your decision to feed your baby with formula or other types of breastmilk substitute?
3. What types of support have/had you received about your decision to breastfeed?
4. How would you describe your support network?
  - a. Who is involved?
5. What were/are the reactions of your friends when you were/are breastfeeding?
6. What were/are the reaction of members of your family when you were/are breastfeeding?
7. Do your friends breastfeed?
8. Do/have other female members of your family breastfeed/breastfed? (Such as, aunts, sisters, cousins, grandmothers, mother)
  - a. If she has a partner or is married: Do/have other female members of partner’s or husband’s family breastfeed/breastfed? (Such as, aunts, sisters, cousins, grandmothers, mother)

**v. \*\*\*If she has a child under six months or is still breastfeeding:**

1. Have you breastfed since giving birth?
2. When did you begin breastfeeding?
3. How long has the baby been breastfeeding since birth?
4. How many times a day does the baby breastfeed?
5. How long do you think the baby will receive breastmilk?
6. If she does not breastfeed: What is the method of feeding the baby?

**D. The impact of the media/ the public**

1. Have you read about breastfeeding?
  - a. If the answer is “yes”, where? (magazines, school books, health pamphlets, the newspaper, etc.)
2. Have you seen a woman breastfeeding in public?
3. What experiences do you have/ have you had when you are/were breastfeeding in public?
4. Have you seen a baby breastfeed in a television program?
  - a. If the answer is “yes: What types of programs? (soap operas, the news, morning programs, evening programs, etc.)
5. Have you seen a baby breastfeeding in a movie?
6. Have you seen a baby breastfeeding in a television commercial?
7. Have you seen television commercials that support the act of breastfeeding?
8. Have you seen television commercials that support the use of artificial milk or other types of breastmilk substitutes?
9. Have the television commercials that support breastfeeding affected your decision to breastfeed?
10. Have the television commercials that supported the use of artificial milk or other breastmilk substitutes affected you decision to breastfeed?
11. Could you say that the media has affected your infant feeding decision?

**E. The impact of hospital policies before giving birth and after giving birth**

*\* Depends on how many children the woman has. Use the most recent child.*

**Before giving birth**

1. What forms of professional support did you receive before giving birth?
2. How would you describe the professional support you received before giving birth?
3. What were the services and activities included in your prenatal care?
4. What types of information did you receive from your doctor, a nurse, or other type of worker in a health agency?

**After giving birth**

1. In what facility or place did you give birth?
2. What was the method of delivery?

3. How much time did you stay in the hospital or clinic after giving birth?
4. What did the nurses do to help you while you were in the hospital?
5. What did the nurses do to care for your baby?
6. Did the nurses encourage you to breastfeed after giving birth?
7. Did your baby stay with you in the same room at the hospital?
8. What form of food did your baby receive while in the hospital or clinic?
9. How was the professional support in the hospital after living birth?
10. How is the professional support in health locations that you have visited since giving birth?



## **APPENDIX D: Consent form (Spanish Version)**

*Formulario de consentimiento de la universidad del estado de Washington*

### **“Evaluación del conocimiento, actitudes hacia y práctica de la lactancia materna entre mujeres rurales de Panamá.”**

Co-Investigadora: Lic.Alexandra Hayes                      teléfono: (507) 6432-5989

Investigadora Principal: Dr. Marsha Quinlan                      teléfono: 001 (509) 335-5405

#### **Declaración de las investigadoras**

Por este medio queremos solicitarle respetuosamente que participe en este estudio de investigación. El propósito de este formulario de consentimiento es darle la información necesaria para ayudarlo a decidir si usted quiere participar o no quiere participar en esta investigación. Usted puede hacer preguntas sobre el propósito de esta investigación, los posibles riesgos y los beneficios, sus derechos como una voluntaria, o cualquiera cosa con respecto a esta investigación que no está clara. Una vez aclaradas sus dudas, usted podrá decidir si usted quiere o no quiere participar. Este proceso se llama “consentimiento informado”.

#### **El propósito y los beneficios**

El objetivo de este estudio es para explorar el conocimiento sobre, actitudes hacia y práctica de la lactancia materna para identificar los factores que influyen las decisiones del alimenticio infantil. Actualmente, no hay programas para promover la lactancia materna en Panamá. A causa de las tasas bajas de lactancia materna entre las mujeres que viven en Panamá, esta investigación propone identificar los factores influenciales en las decisiones del alimenticio infantil para planear las intervenciones comunitarias de apoyo a la lactancia materna que sean apropiadas culturalmente.

Los beneficios esperados de su participación en este estudio incluyen una compilación completa de su conocimiento, actitudes y práctica de la lactancia materna que será incluida en una tesis de maestría que se presentará ante un panel de profesores y profesoras de la universidad del estado de Washington. Después de la presentación de esta tesis, podrá ser sometida para publicación en una revista académica y también la compilación vaya a ser sometida al Ministerio de Salud de Panamá y otras agencias de salud que están trabajando en Panamá. Los beneficios indirectos incluyen su contribución al entendimiento mundial del proceso de la lactancia materna y las influencias en las decisiones del alimenticio infantil de las madres en Panamá y otros países Latinoamericanos.

## **Procedimientos**

Este estudio empezará con un cuestionario para adquirir su información personal básica, su conocimiento y actitudes sobre la lactancia materna. Este cuestionario no debe tomar más de una hora, y puede llevar a cabo en el lugar que usted quiera, como su casa o mi casa. Como una sugerencia, esta entrevista tiene que ocurrir en un área que no tienen muchas distracciones para le proveer tiempo para concentrar y completar el cuestionario.

Además de la entrevista inicial, es posible que le contacte nuevamente para participar en otra entrevista en la cual le preguntaré sobre su práctica de la lactancia materna, el impacto de los medios de comunicación y la información recibida en los centros de salud y hospitales en sus decisiones de alimentar a su bebé. Para dicha entrevista podremos reunirnos en un lugar y tiempo conveniente para usted. Esta entrevista no debe tomar más de una a dos horas. Con su permiso me gustaría grabar nuestra entrevista. Estas grabaciones guardarán en un lugar seguro y se utilizarán solamente para esta investigación. Yo soy la única persona que sabrá su identidad, y no la pondré a disposición de nadie más.

Usted tiene el derecho que rehusarse a contestar en cualquier momento sin ningún problema.

## **Riesgos, estrés, y malestar**

Su participación en cualquier tipo de actividad con respecto a este estudio es completamente confidencial porque su identidad será protegida. La información que me provee utilizará en mi tesis de maestría y en un informe general para el Ministerio de Salud de Panamá. Si este estudio sea publicado, su identidad estará igualmente protegida .

Es importante que recuerde que siempre tiene la posibilidad de responder que no sabe a cualquier pregunta que se le haga. No hay ningún problema si usted contesta que usted no sabe. Igualmente, si usted se siente incómoda con una pregunta, usted puede negarse contestarla así terminado la entrevista.

### **Por favor recuerde:**

Todos los datos dados durante la entrevistas serán confidenciales u su identidad estará protegida. Los datos serán utilizados para mi tesis de maestría en una universidad norteamericana.

Usted tiene el derecho que negarse de participar en este estudio y puede retirarse de este estudio a cualquier momento que así usted lo decida.

No se cobrará ni pagará ningún dinero por participar en este estudio. Toda la información es voluntaria y usará solamente para el propósito de este estudio.

---

Nombre escrito de investigadora

Firma de investigadora

Fecha

### **Declaración del participante**

Por este medio certifico que las investigadoras me han explicado los objetivos, riesgos, beneficios y metodologías del presente estudio. Con este conocimiento me ofrezco para participar en esta investigación. Yo he tenido la oportunidad para hacer preguntas. Entiendo que si yo tengo preguntas generales sobre esta investigación, yo puedo preguntárselas a la co-investigadora. Si yo tengo preguntas sobre mis derechos como participante, yo puedo llamar al directorio de análisis institucional de la universidad del estado de Washington a (001) (509) 335-9661. Este proyecto ha sido repasado y aprobado para la participación de seres humanos por el directorio de análisis institucional de la universidad del estado de Washington.

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Nombre escrito de la participante

Firma de la participante

Fecha

## APPENDIX E: Questionnaire (Spanish Version)

### El conocimiento de y las actitudes hacia la lactancia materna de las mujeres rurales de Panamá

Gracias por su permiso para completar este cuestionario. Todas sus respuestas en este cuestionario son confidenciales y destruirán en cuatro años (en 2012). Para proteger su identidad, por favor, no escriba su nombre ni cedula en ningún lugar en este cuestionario.

Para completar este cuestionario, por favor diga su respuesta a la investigadora en cada pregunta. Si usted no sabe, por favor trate estimar la respuesta.

Seudónimo escogido del participante: \_\_\_\_\_

Investigadora: \_\_\_\_\_

Lugar donde la entrevista se ocurrió:

- la casa del participante
- la casa de la investigadora
- la escuela
- otro \_\_\_\_\_

Fecha: \_\_\_\_\_

Número \_\_\_\_\_

## Parte 1: Información personal

### 1. Género

- hombre
- mujer

### 2. Edad

- < 20 años
- 20-25 años
- 26-30 años
- 31-35 años
- 36-40 años
- > 41 años

### 3. Estado civil

- Soltera
- Con compañero o casada

### 4. Lugar de Nacimiento

- Panamá
- Otro \_\_\_\_\_

### 5. Idioma

- Español
- Otro \_\_\_\_\_

## 6. Religión

- Católica
- Evangélica
- Otra \_\_\_\_\_

## 7. Escolaridad

- Ninguna
- Primaria (hasta el sexto grado)
- Primer ciclo (hasta el tercer año de colegio)
- Secundaria completa
- Universidad
- Universidad completa
- Otra \_\_\_\_\_

## 8. Situación laboral

- Trabaja fuera del hogar
- Ama de casa

## 9. Ingresos mensuales de la familia

- <B./100.00
- B./101.00- B./ 150.00
- B./151.00- B./200.00
- B./201.00- B./250.00
- B./251.00- B/300.00

>B./301.00

10. ¿Además de sus hijos hay otras personas que viven con Usted en su casa? (Si marca "sí" continuo a pregunta #11; si marca "no" continuo a pregunta #12)

Sí

No

11. Si hay otras personas, además de sus hijos, que viven con usted en su casa, estos son:

padre de los hijos

compañero

abuelo

abuela

tía

tío

nieto/a(s)

primo/a(s)

hermano(s)

hermana(s)

otro \_\_\_\_\_

12. Edad cuando tuvo su primer parto

<15 años

15-18 años

19-24 años

25-30 años

31-35 años

> 36 años

13. Número de partos

1

2

3

4

5

> 5

14. Número de hijos amamantados

1

2

3

4

5

> 5

15. Experiencia dando pecho en el pasado

Ninguna (primípara)

Ninguna (multípara)

Amamantamiento previo <6 meses

Amamantamiento previo  $\geq$  6 meses



17. ¿Usted amamantó a su bebé de manera? (si usted marcó “la lactancia materna exclusiva” continuo a pregunta #18; si usted marcó “no” continuo a pregunta #19). También, llena la línea de tiempo en la otra página.

- exclusiva-** el/la bebé recibe solamente la leche materna;  
ni otros líquidos ni comida sólida
- predominante-** el/la bebé recibe primariamente la leche materna pero el/la bebé podría recibido agua, té, jugo de frutas, etc.
- parcial-** el/la bebé recibe la leche materna en combinación con fórmula u otra forma de sustitutos de leche materna.
- alimentos artificiales-** el/la bebé recibe solamente alimentos en la forma de sustitutos de leche materna, productos sucedáneos, o fórmula.

18. Si sólo alimentó a su bebé con leche materna, por cuánto tiempo lo hizo?

- <1 mes
- 1-3 meses
- 4-5 meses
- 6 meses
- >6 meses

19. ¿Cuál era la edad de su bebé le empezó a dar comidas sólidas por la primera vez?

- <1 mes
- 1-3 meses
- 4-5 meses
- 6 meses
- >6 meses

20. ¿Usted utiliza algún método para evitar quedar embarazada? (Si la respuesta es "sí" continúe a pregunta #21).

Sí

No

21. ¿Cuáles son? (marca los que se aplicuen)

condones

anticonceptivos orales/ pastillas

otro \_\_\_\_\_

## Parte 2: Evaluación del conocimiento

Instrucciones:

Le voy a leer algunas cosas que se dicen sobre la lactancia materna. Por favor, dígame si está de acuerdo, o no está de acuerdo o si está neutral.

1. La leche de fórmula u otros sustitutos son mejor que la leche materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
2. La leche de fórmula u otros sustitutos son de igual calidad que la leche materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
3. Los sustitutos de la leche materna tienen factores inmunológicos (ayudan a proteger al bebé en contra de enfermedades)	Estoy de acuerdo	Neutral	No estoy de acuerdo
4. Cuando se habla de la lactancia materna exclusiva se refiere a bebés que recibieron leches artificiales y leche materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
5. La composición de la leche materna está adaptada a las necesidades del bebé	Estoy de acuerdo	Neutral	No estoy de acuerdo
6. El bebé debe recibir sólo la leche materna desde el nacimiento hasta los seis meses	Estoy de acuerdo	Neutral	No estoy de acuerdo
7. El bebé necesita tomar agua en además de la leche materna durante los primeros meses	Estoy de acuerdo	Neutral	No estoy de acuerdo
8. La madre necesita dar al bebé comidas y bebidas complementarias antes de seis meses porque la leche materna no es suficiente para alimentar el bebé	Estoy de acuerdo	Neutral	No estoy de acuerdo
9. Los beneficios de la lactancia materna dependen de la cantidad de leche que el bebé recibe	Estoy de acuerdo	Neutral	No estoy de acuerdo
10. El bebé debe ser destetado cuando la madre siente que el bebé está listo para hacerlo	Estoy de acuerdo	Neutral	No estoy de acuerdo
11. Para destetar al bebé es mejor hacerlo poco a poco durante un mes	Estoy de acuerdo	Neutral	No estoy de acuerdo
12. La leche materna protege al bebé de infecciones digestivas y	Estoy de	Neutral	No estoy de

respiratorias (del estómago y los pulmones)	acuerdo		acuerdo
13. La leche materna previene la diarrea y el estreñimiento en los bebés	Estoy de acuerdo	Neutral	No estoy de acuerdo
14. La primera leche de la madre es un alimento lleno de anticuerpos que aumentan las defensas de salud del recién nacido	Estoy de acuerdo	Neutral	No estoy de acuerdo
15. El calostro o la primera leche de la madre es reemplazado por leche materna dos o tres días después del parto	Estoy de acuerdo	Neutral	No estoy de acuerdo
16. La madre necesita dar pecho antes de una hora del nacimiento del bebé	Estoy de acuerdo	Neutral	No estoy de acuerdo
17. Es mejor si el bebé está en la misma habitación de la madre en el hospital	Estoy de acuerdo	Neutral	No estoy de acuerdo
18. Es mejor si el bebé duerme con la madre en la misma cama	Estoy de acuerdo	Neutral	No estoy de acuerdo
19. Dar de mamar no reduce el riesgo de cáncer de mama	Estoy de acuerdo	Neutral	No estoy de acuerdo
20. Dar de mamar ayuda a la madre a perder de peso después del parto	Estoy de acuerdo	Neutral	No estoy de acuerdo
21. Dar pecho puede evitar que la madre quede embarazada nuevamente	Estoy de acuerdo	Neutral	No estoy de acuerdo
22. Dar pecho ayuda a que el útero se recupere después del parto	Estoy de acuerdo	Neutral	No estoy de acuerdo
23. La nutrición de la madre no afecta la leche materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
24. El tamaño de los senos cambia cuando se da pecho	Estoy de acuerdo	Neutral	No estoy de acuerdo
25. Las emociones podrían afectar la composición de la leche materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
26. La producción de la leche materna cambia dependiendo del número de las veces que el lactante se amamanta	Estoy de acuerdo	Neutral	No estoy de acuerdo
27. La mayoría de los recién nacidos necesitan tomar pecho cada	Estoy de	Neutral	No estoy de

dos a tres horas	acuerdo		acuerdo
28. Un horario estricto de amamantar es el mejor para el bebé	Estoy de acuerdo	Neutral	No estoy de acuerdo
29. Cuando el bebé está enfermo no debe recibir leche materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
30. Una madre que está enferma no debe dar su leche al bebé, incluso si ella no está tomando medicamentos	Estoy de acuerdo	Neutral	No estoy de acuerdo
31. Los medicamentos pueden pasar de la madre al hijo a través de la leche materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
32. La madre necesita dejar de dar pecho cuando ella regresa a su trabajo o escuela	Estoy de acuerdo	Neutral	No estoy de acuerdo
33. A medida que el bebé crece, la leche materna cambia para satisfacer las necesidades nutricionales del bebé	Estoy de acuerdo	Neutral	No estoy de acuerdo

### Parte 3: Las actitudes hacia la lactancia materna

Instrucciones:

Le voy a leer algunas cosas que se dicen sobre la lactancia materna. Por favor, dígame si está de acuerdo, o no está de acuerdo o si está neutral.

1. La lactancia materna es más saludable para el bebé que la leche artificial	Estoy de acuerdo	Neutral	No estoy de acuerdo
2. Dar pecho es una experiencia emocionante	Estoy de acuerdo	Neutral	No estoy de acuerdo
3. Dar pecho es doloroso	Estoy de acuerdo	Neutral	No estoy de acuerdo
4. Dar pecho crea un fuerte lazo entre la madre y el hijo	Estoy de acuerdo	Neutral	No estoy de acuerdo
5. Dar pecho aumenta la autoestima de la madre	Estoy de acuerdo	Neutral	No estoy de acuerdo
6. La lactancia materna ahorra gastos en salud	Estoy de acuerdo	Neutral	No estoy de acuerdo
7. La alimentación con fórmula u otro sustituto de la leche materna es más cara que la lactancia materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
8. A las mujeres les da pena dar pecho en público	Estoy de acuerdo	Neutral	No estoy de acuerdo
9. Las madres deben amamantar solamente en lugares discretos	Estoy de acuerdo	Neutral	No estoy de acuerdo
10. No es aceptable dar pecho en frente de las otras personas	Estoy de acuerdo	Neutral	No estoy de acuerdo
11. Es importante que el compañero o esposo apoye la decisión de la mujer a dar pecho	Estoy de acuerdo	Neutral	No estoy de acuerdo

12. Es importante que los miembros de la familia apoyen la decisión de la mujer a dar pecho	Estoy de acuerdo	Neutral	No estoy de acuerdo
13. Para que la mujer pueda dar pecho exitosamente es importante que la gente tiene a su alrededor la apoye	Estoy de acuerdo	Neutral	No estoy de acuerdo
14. La lactancia materna es una actividad natural	Estoy de acuerdo	Neutral	No estoy de acuerdo
15. El pecho es un atractivo sexual	Estoy de acuerdo	Neutral	No estoy de acuerdo
16. La lactancia materna es conveniente	Estoy de acuerdo	Neutral	No estoy de acuerdo
17. La alimentación con fórmula u otro sustituto de la leche materna es más conveniente que la lactancia materna	Estoy de acuerdo	Neutral	No estoy de acuerdo
18. La alimentación con fórmula u otro sustituto de la leche materna permite la ayuda del compañero o marido	Estoy de acuerdo	Neutral	No estoy de acuerdo
19. La lactancia materna requiere un esfuerzo especial	Estoy de acuerdo	Neutral	No estoy de acuerdo
20. La lactancia materna provee más libertad a la madre	Estoy de acuerdo	Neutral	No estoy de acuerdo
21. La lactancia materna mejora la apariencia de los senos	Estoy de acuerdo	Neutral	No estoy de acuerdo
22. El bebé disfruta del pecho más que del biberón	Estoy de acuerdo	Neutral	No estoy de acuerdo
23. La lactancia materna no provee leche suficiente para el bebé	Estoy de acuerdo	Neutral	No estoy de acuerdo
24. Los bebés amamantados son más felices que los bebés que reciben alimentación con fórmula u otro tipo de la leche artificial	Estoy de acuerdo	Neutral	No estoy de acuerdo
25. Las historias de mis amigas me ayudaron a decidir si yo iba a dar pecho o no	Estoy de acuerdo	Neutral	No estoy de acuerdo
26. Los medios de comunicación presentan la lactancia materna como algo negativo	Estoy de acuerdo	Neutral	No estoy de acuerdo

## **APPENDIX F: Semi-structured interview guide (Spanish version)**

### **La guía de la entrevista estructurada parcial**

**META:** *Explorar el conocimiento de y las actitudes hacia la lactancia materna, la práctica de la lactancia materna, y el impacto de los medios de comunicación y de las políticas de los hospitales en las decisiones que afectan el alimento infantil en las mujeres de las áreas rurales de Panamá, con el propósito de identificar los factores más influyentes para recomendar y planear intervenciones culturalmente apropiadas en la comunidad para el apoyo de la lactancia materna.*

#### **A. La información personal- \*no es necesario a llenar si la mujer hizo esta información el cuestionario**

- ◇ Género
- ◇ Edad
- ◇ Estado civil
- ◇ Lugar de Nacimiento
- ◇ Idioma
- ◇ Religión
- ◇ Escolaridad
- ◇ Situación laboral/ ocupación
- ◇ Ingresos mensuales de la familia
- ◇ Largo de duración en la comunidad
- ◇ Miembros de la familia que vive en la casa con la madre
  - Número de mujeres y edades y ocupaciones
  - Número de hombres y edades y ocupaciones

#### **B. El conocimiento de la lactancia materna**

1. ¿Hay beneficios y las ventajas de la lactancia materna para el bebé?
2. ¿Hay beneficios y las ventajas de la lactancia materna para la madre?
3. ¿Hay desventajas de la lactancia materna para el bebé?
4. ¿Hay desventajas de la lactancia materna para la madre?
5. ¿Cuál es el mejor tiempo para empezar la lactancia materna?
6. ¿Cuántos meses de la lactancia materna es la mejor para el bebé?
  - a. ¿Por qué?
7. ¿Cuántas veces cada día necesita dar pecho a un bebé?
8. ¿Qué piensa usted está en la composición de la leche materna?
9. ¿Qué es calostro?
10. ¿Cuáles son los beneficios del calostro?
11. ¿Qué factores afectan la leche materna?
12. ¿Cuándo es mejor a introducir comidas complementarias al bebé?



### C. Las actitudes hacia la lactancia materna

1. ¿Cómo se siente usted sobre el uso de la leche artificial/fórmula para los bebés?
2. ¿Cómo se siente usted sobre la lactancia materna para los bebés?
3. ¿Cree usted que la leche materna es suficiente para alimentar un bebé? ¿Por qué?
4. ¿Cuáles son los factores que han influido sus actitudes hacia la lactancia materna?
5. ¿Qué piensa usted sobre las mujeres que amamantan en público?
6. ¿Qué piensa usted sobre los bebés que duermen con la madre en la misma cama?
  - a. ¿Cuáles son las condiciones apropiadas?

### D. La práctica de la lactancia materna

#### i. La historia de la familia y la práctica de la lactancia materna

1. ¿Recibió la leche materna cuando era un bebé?
  - a. Si la respuesta es "sí", ¿Por cuánto tiempo?
2. ¿Cuántos años tenía usted cuando tuvo su primer parto?
3. ¿Cuándo hizo usted la decisión de cómo alimentar a su bebé?
4. ¿Cuántos hijos tiene usted?
  - a. ¿Cuáles son las edades de sus hijos?
5. ¿Cuántos hijos suyos han sido amamantados?
6. ¿Cuándo dio el pecho a sus hijos por la primera vez?
7. ¿Cuál era su experiencia previa en amamantamiento?
8. ¿Tenía/tiene problemas con la lactancia materna? Describa los problemas si hubiera.
  - a. Si hubiera, ¿tiene usted remedios caseros para los problemas relacionados con la lactancia materna?
9. ¿Cuánto tiempo en total dio el pecho a sus hijos amamantados?
10. ¿Cuál opción de las siguientes mejor describe el método de la lactancia materna que usted utilizó/utiliza con sus bebés?
  - a. **la lactancia materna exclusiva**- el/la bebé recibe solamente la leche materna; ni otros líquidos ni comida sólida
  - b. **la lactancia materna predominante**- el/la bebé recibe primariamente la leche materna pero el/la bebé podría haber agua, té, jugo de frutas, etc.
  - c. **la lactancia materna parcial**- el/la bebé recibe la leche materna en combinación con fórmula u otra forma de sustitutos de leche materna.
  - d. **alimentos artificiales**- el/la bebé recibe solamente alimentos en la forma de sustitutos de leche materna, productos sucedáneos, o fórmula.
11. ¿Cómo hizo usted para integrar la lactancia materna en su vida diaria?
  - a. Si ella esta amamantando todavía, ¿Cómo hace usted para integrar la lactancia materna en su vida diaria?
12. ¿Tiene su bebé infecciones de oído?
13. ¿Tiene su bebé episodios de diarrea?
14. ¿Qué hizo para ayudar a su bebé a amamantar?
  - a. Si ella esta amamantando todavía, ¿Qué hace para ayudar a su bebé a amamantar?
15. ¿Cómo se describía el horario de amamantar para su bebé?
  - a. Si ella esta amamantando todavía, ¿Cómo se describe el horario de amamantar para su bebé?

16. ¿Cómo sabía si el bebé estaba recibiendo suficiente leche materna?
  - a. Si ella esta amamantando todavía, ¿Cómo sabe si el bebé está recibiendo suficiente leche materna?
17. ¿Evitó ciertos tipos de comidas o bebidas mientras usted estaba embarazada?
18. ¿Evitó ciertos tipos de comidas o bebidas después del parto?
19. ¿Evitó ciertas actividades después del parto?
20. ¿Cuándo reanudó las actividades, normales o diarias, en la casa?
21. ¿Usted usó métodos de planificación familiar después del parto?
  - a. Si la respuesta es “sí”, ¿Cuáles fueron los métodos que usted usó?

## **ii. La leche artificial/ otros sustitutos de la leche materna**

1. ¿Cuándo usaba usted la leche artificial u otros tipos de sustitutos de la leche materna?
  - a. Si ella esta amamantando todavía, ¿Cuándo usa usted la leche artificial u otros tipos de sustitutos de la leche materna?
2. ¿Cómo recibió el bebé la leche artificial u otros tipos de sustitutos de la leche materna?
  - a. Si ella esta amamantando todavía, ¿Cómo recibe el bebé la leche artificial u otros tipos de sustitutos de la leche materna?

## **iii. Destetar**

1. ¿Cuándo introdujo bebidas salvo la leche materna al bebé?
  - a. Si ella no ha introducido bebidas, ¿Cuándo piensa usted va a dar bebidas salvo la leche materna al bebé?
2. ¿Cuándo introdujo comidas salvo la leche materna al bebé?
  - a. Si ella no ha introducido comidas, ¿Cuándo piensa usted va a dar comidas salvo la leche materna al bebé?
3. ¿Cuándo terminó la lactancia materna?
  - a. Si ella está amamantando todavía, ¿Cuándo piensa usted va a destetar el bebé?
  - b. Si ella ha parado la lactancia materna, ¿Cuáles fueron sus razones para terminar?
4. ¿Qué hacía para destetar su bebé?
  - a. Si ella está amamantando todavía, ¿Cuándo piensa usted va a hacer para destetar su bebé?
5. ¿Hay/había algunas tipas de comidas que Usted no da/dio al bebé?
6. ¿Hay/había algunas tipas de bebidas que Usted no da/dio al bebé?

## **iv. Apoyo social**

1. ¿Cuáles fueron los factores que influyeron su decisión de cómo alimentar a su bebé?
2. ¿Cuáles fueron los factores que influyeron su decisión a amamantar su bebé?
  - a. Si aplique a la mujer, ¿Cuáles fueron los factores que influyeron su decisión para alimentar con fórmula u otro tipo de sustituto de leche materna a su bebé?
3. ¿Qué tipos de apoyo ha recibido sobre su decisión a amamantar?
4. ¿Cómo se describiría a su red de apoyo?
  - a. ¿Quién está involucrado?
5. ¿Cuáles son/eran las reacciones de sus amigas cuando usted está/ estaba amamantando?
6. ¿Cuáles son/eran las reacciones de sus miembros de su familia cuando usted está/ estaba amamantando?
7. ¿Amamantan sus amigas?

8. ¿Hacen/ hicieron la lactancia materna por las mujeres en su familia (como tías, hermanas, primas, abuelas, madres)
  - a. Si ella tiene un compañero o está casada, ¿Han amamantado las mujeres en la familia de su compañero o marido (como tías, hermanas, primas, abuelas, madres)?

**v. \*\*\*Si ella tiene un bebé menos de seis meses:**

1. ¿Usted ha dado el pecho al bebé desde que dio la luz?
2. ¿Cuándo empezó la lactancia materna?
3. ¿Cuánto tiempo ha recibido su bebé el pecho desde que dio la luz?
4. ¿Cuántas veces cada día amamanta a su bebé?
5. ¿Cuánto tiempo usted piensa su bebé va a recibir la leche materna?
6. Si usted no da el pecho al bebé, ¿Cuál es su método de alimentar para al bebé?

**D. El impacto del media/ el público**

1. ¿Ha leído usted sobre la lactancia materna?
  - a. Si la respuesta es “sí”, ¿Dónde? (las revistas, libros de la escuela, folletos de salud, el periódico, etc.)
2. ¿Ha visto a una mujer que amamantar en público?
3. ¿Qué experiencias ha tenido usted cuando usted amamanta en público?
4. ¿Ha visto a un/una bebé amamantado/a en un programa en la televisión?
  - a. Si la respuesta es “sí”, ¿En qué tipos de programas? (en telenovelas, las noticias, programas de la mañana, programas de la noche, etc.)
5. ¿Ha visto a un/una bebé amamantado/a en una película?
6. ¿Ha visto a un/una bebé amamantado/a en un anuncio de la televisión?
7. ¿Ha visto anuncios en la televisión que apoyan la lactancia materna?
8. ¿Ha visto anuncios de la televisión que apoyan el uso de la leche artificial u otros tipos de los sustitutos de la leche materna?
9. ¿Han afectado los anuncios en la televisión que apoyan la lactancia materna su decisión de amamantar?
10. ¿Han afectado los anuncios en la televisión que apoyan el uso de la leche artificial u otros tipos del sustitutos de la leche materna decisión de amamantar?
11. ¿Podría decir que los medios de comunicación han afectado su decisión de cómo alimentar a su bebé?

**E. El impacto de las políticas del hospital antes del parto y después del parto**

\*\*\*\* *Depende en cuantos hijos la madre tenga. Use el hijo mas reciente.*

**Antes del parto**

1. ¿Qué formas de apoyo profesional recibió antes del parto?
2. ¿Cómo describiría el apoyo profesional que recibió antes del parto?
3. ¿Cuáles fueron los servicios y las actividades incluidas en su asistencia médica prenatal?

4. ¿Qué tipos de información recibió usted de su doctor, enfermeras, u otro empleado de una agencia de salud?

### **Después del parto**

1. ¿En qué facilidad/lugar dio a luz?
2. ¿Cuál fue el método de parto?
3. ¿Cuánto tiempo quedó en el hospital o clínica después del parto?
4. ¿Qué hicieron las enfermeras para ayudarle mientras usted estaba en el hospital?
5. ¿Qué hicieron las enfermeras para cuidar a su bebé en el hospital?
6. ¿Le aletaron las enfermeras a dar el pecho después del parto?
7. ¿Quedó su bebé consigo en la misma habitación en el hospital?
8. ¿Qué formas de alimentos recibió su bebé mientras estaba en el hospital o clínica?
9. ¿Cómo fue el apoyo profesional en el hospital después del parto?
10. ¿Cómo es el apoyo profesional en los centros de salud que usted ha visitado desde que dio la luz?

*Línea de Tiempo de lactancia materna*

<i>MES</i>	<i>Nombre de niño/a:</i>	<i>Fecha de nacimiento:</i>	<i>Edad actual:</i>
<i>1</i>			<b><i>Lista de códigos</i></b>
<i>2</i>			<b><i>EXC-exclusiva</i></b>
<i>3</i>			<b><i>AAF-alimentos artificiales</i></b>
<i>4</i>			<b><i>PD-predominante</i></b>
<i>5</i>			<b><i>P-parcial</i></b>
<i>6-medio año</i>			<b><i>BC-bebidas complementarias</i></b>
<i>7</i>			<b><i>CC-comidas complementarias</i></b>
<i>8</i>			
<i>9</i>			
<i>10</i>			
<i>11</i>			
<i>12-un año</i>			
<i>13</i>			
<i>14</i>			
<i>15</i>			
<i>16</i>			
<i>17</i>			

<i>18-un año y medio</i>			
19			
20			
21			
22			
23			
<i>24- dos años</i>			
25			
26			
27			
28			
29			
<i>30-dos y medio años</i>			
31			
32			
33			
34			
35			
<i>36- tres años</i>			