

## Low Income Women and Barriers to Breastfeeding

LaNisa Allen was just an average working mom with a new son. Like all mothers, she wanted what was best for her child. This led her to decide to breastfeed him. When she had interviewed at Totes/Isotoner Corporation in Ohio for the manual labor job based on hourly wages, she had brought up her concerns about workplace flexibility. As a new mother who was breastfeeding, she would need additional accommodations in order to pump breast milk. Her son, Travian, was 4 months old at the time and would normally feed every three hours. In order to keep her body supplying this amount, she would have to pump on a schedule similar to his eating habits.

During the interview, she was assured that the company was flexible for women workers. Her employers offered her a breast-pumping break five hours into her shift. Those extra two hours led to painful complications such as the embarrassment of leakage, the pain of engorged breasts, a lessening milk supply for her son, and chronic lower back pains. When LaNisa tried to work with her supervisors to alter the schedule to better fit her needs she was turned down. After a month of dealing with the painful side effects of being forced to wait two extra hours, she decided to take matters into her own hands. During that month she consistently observed that her fellow co-workers were allowed to take 15 minute breaks for smoking without having to receive permission from their supervisors, so LaNisa started to take a 15 minute break an hour earlier to express milk.

Two weeks into this new schedule, a supervisor walked in on her, told her she was violating the workplace rules. LaNisa was fired that day. She sued the company on the grounds of gender discrimination. The case made its way to the Ohio Supreme Court. Roughly

half a year after the firing the ruling was in: Totes/Isotoner Corporation had not engaged in gender discrimination, specifically that:

Allen had not been discriminated against on the basis of pregnancy. According to the trial court, “Allen gave birth over five months prior to her termination from [Isotoner]. Pregnant [women] who give birth and chose not to breastfeed or pump their breasts do not continue to lactate for five months. Thus, Allen’s condition of lactating was not a condition relating to pregnancy but rather a condition related to breastfeeding. Breastfeeding discrimination does not constitute gender discrimination.”<sup>1</sup>

This high profile case sparked debates over the rights of lactating women in both the workplace and public space. Why this case created such a reaction speaks to the social changes that the United States is facing in gender rights, health issues, and the change in the demographics of the average worker. This paper explores why breastfeeding is such an important issue for disadvantaged women, the actions that should be taken to encourage low-income mothers to breastfeed, and how to support and protect the mothers who do attempt to breastfeed.

### Breastfeeding: The Benefits

The benefits for both mother and child are well documented in the case of extended, exclusive breastfeeding. The World Health Organization, Centers for Disease Control and Prevention, and American Academy of Pediatrics have all recommend that infants should be exclusively fed on breast milk until at least six months of age. While the American Academy of Pediatrics encourages mothers to continue breastfeeding until the child is at least one year old, the World Health Organization encourages breastfeeding until the child is at least two.

Breast milk is shown to be the ideal food for infants, as it is “easily absorbed, has a low

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<sup>1</sup> Allen v. totes/Isotoner Corp p 8-9

solute load, and an increased availability of minerals, vitamins, and proteins.”<sup>2</sup> Some of the immediate health benefits during early childhood for breastfed infants include: “fewer illness episodes overall and experience fewer episodes of infectious illnesses, such as otitis media, upper respiratory infections, and gastrointestinal illness.”<sup>3</sup> In comparison to children who are breastfed, the children who were not exclusively breastfed for the first six months of life are “3.5 times more likely...to be hospitalized for respiratory infections such as pneumonia or asthma, 2 times more likely to suffer from diarrhea, 1.6 times more likely to suffer from ear infection, and 1.5 times more likely to become overweight during childhood.”<sup>4</sup> Other ailments that show at higher rates in non-breastfed babies include “urinary tract infections, necrotizing enterocolitis, atopic disease if a family history of atopy is present, and diabetes mellitus.”<sup>5</sup> Even in the case of premature and sick newborns, human milk is vastly preferred over formula as stated by the American Academy of Pediatrics.<sup>6</sup> When the child is exclusively breastfed “overall decreases in both infant morbidity and hospitalization rates have also been reported” compared to formula fed children.<sup>7</sup>

Many of these benefits are associated with exclusive breastfeeding for six months. However, even just breastfeeding once shortly after birth is significant in terms of protecting the child’s immune system. This is due to colostrum (sometimes called liquid gold by breastfeeding promoters), which is only produced shortly after birth. This small amount of breast milk contains the most powerful dose of antiviral activities, white blood cells, immune cells, encourages the development of lysozyme (“an enzyme that destroys bacteria by disrupting their cell walls”), and

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<sup>2</sup> Arora et al, “Major Factors Influencing Breastfeeding Rates...”, p 1.

<sup>3</sup> Ahluwalia et al, “Georgia's Breastfeeding Promotion Program...”, p 2.

<sup>4</sup> Li et al, “Why Mothers Stop Breastfeeding...”, p 69.

<sup>5</sup> Dyson et al, “Interventions for Promoting the Initiation...”, p 2.

<sup>6</sup> Li et al, “Breastfeeding Rates in the United States...”, p 31.

<sup>7</sup> Arora et al, “Major Factors Influencing Breastfeeding Rates...”, p 1.

promotes quicker growth for the infant.<sup>8</sup>

As stated earlier, not only does breast feeding benefit the child, but it also benefits the mother: “Breastfed infants receive antibodies from breast milk, which protect against infection in the early postpartum period, and breast feeding is less expensive than formula feeding.”<sup>9</sup>

Breastfeeding is also believed to increase the infant-mother bond.<sup>10</sup> Health benefits for the mother include lower rates of developing epithelial ovarian cancer and premenopausal breast cancer.<sup>11</sup> Studies have shown that she will also increase the likelihood of returning to pre-pregnancy levels of body fat.<sup>12</sup>

As clearly outlined above, the health benefits to both the mother and infant are startling, not including the fiscal benefits of saving on formula, bottles, and other additional supplements required to bottle feed. Breastfeeding also encourages infant-mother bonding. On a societal level, breastfeeding could lead to “potential annual savings of \$3.6 billion in US health care costs.”<sup>13</sup> The increase in the infant’s immune system is especially useful to low income mothers, as it decreases the financial strain that chronically ill infants cause. With all of these benefits outlined, it is startling to learn that less than 50% of infants are breastfed at the 6 months mark across all demographic groups.<sup>14</sup> The overall statistic for US mothers who have continued breastfeeding at the 6 months mark is 38%.<sup>15</sup> It is important to see how these numbers break down across the demographics.

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<sup>8</sup> Newman, “How Breastmilk Protects Newborns”, p 2-4.

<sup>9</sup> McDowell et al, “Breastfeeding in the United States...”, p 1.

<sup>10</sup> Ahluwalia et al, “Georgia’s Breastfeeding Promotion Program...”, p 2. & Arora et al, “Major Factors Influencing Breastfeeding Rates...”, p 1.

<sup>11</sup> Dyson et al, “Interventions for Promoting the Initiation...”, p 2.

<sup>12</sup> Arora et al, “Major Factors Influencing Breastfeeding Rates...”, p 1.

<sup>13</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 39.

<sup>14</sup> McDowell et al, “Breastfeeding in the United States...”, p 4.

<sup>15</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 41.

## Who Breastfeeds? Exploring the Demographics

Interesting patterns across populations emerge when breastfeeding mothers are divided based on their demographics. Statistically speaking, if rates of breastfeeding were expected to be equal across all demographics, then women who are traditionally underrepresented in breastfeeding include:

black, younger (<25 years of age), in the lowest income group (<\$10,000), no more than grade school educated, primiparous, and living in the South Atlantic region of the United States; women who had infants with low birth weight; women who were employed full time outside the home<sup>7</sup> and women who participated in the Women, Infants, and Children supplemental food program.<sup>16</sup>

However, culture, education, and social support plays a large role in who decides to breastfeed and who decides that it is not possible to breastfeed. Even when socioeconomic background is held constant, “Black women are consistently shown to have lower and Hispanic women higher

breastfeeding rates than their non-Hispanic white counterparts” which possibly reflects “important cultural and normative influences.”<sup>17</sup> In terms of breastfeeding initiation, the statistics fall along

the racial lines as such: Asians at 89%, Hispanics at 77%, Whites at 75% American Indians at 60%, and Blacks at 51%.<sup>18</sup> The rates of breastfeeding duration to the recommended six months

mark fall along the racial lines as such: Asians at 39%, Hispanics at 39%, Whites at 40%,

American Indians at 31%, and Blacks at 23%.<sup>19</sup> Across racial lines, the breastfeeding imitation

and duration rates were “significantly lower among children from single-parent households, no metropolitan residents, and children from socioeconomically disadvantaged households.”<sup>20</sup>

Income plays a large role in if mothers are able to breastfeed, when the mothers below the poverty

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<sup>16</sup> Ryan, “The Resurgence of Breastfeeding...”, p 1.

<sup>17</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 39.

<sup>18</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 40-41.

<sup>19</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 40-41.

<sup>20</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 41.

threshold are compared to the mothers 400% above the poverty threshold, the impoverished mothers had “87% higher odds of never breastfeeding and a 41% higher odds of not breastfeeding at 6 months.”<sup>21</sup> Another interesting divide along socioeconomic status is only visible when juxtaposed against immigration status. Among the native born children with native born parents, poverty decreases the chances that the child will be breastfed to six months (23%); however, if that family was well off, they would be far more likely to continue breastfeeding at the six months mark.<sup>22</sup> Among the poor immigrant children with immigrant parents, the chances of being breastfed to the six months mark is remarkably higher (64%).<sup>23</sup> In summary, the best way to predict who will breastfeed is by looking at:

Socioeconomic factors, such as higher household education and income levels, are particularly important to predicting increased breastfeeding rates among native women; however, they tend to have a negative effect on breastfeeding initiation and duration among recent immigrant women.<sup>24</sup>

This study also notes that rural women are less likely to breastfeed. Meanwhile another study pointed out to regional differences, with mothers from the Pacific and Mountain areas of the United States being more likely to continue breastfeeding to the six month period (30.9% and 30.3% respectively) than mothers from the South (under 20%).<sup>25</sup> What are possible causes for these relatively low numbers?

### Barriers to Breastfeeding

There are several possible barriers causing the low numbers exposed in the earlier section.

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<sup>21</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 41, 43.

<sup>22</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 43

<sup>23</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 43

<sup>24</sup> Singh et al, “Nativity/Immigrant Status, Race/Ethnicity, and...”, p 45

<sup>25</sup> Ryan, “The Resurgence of Breastfeeding...”, p 3.

A large problem for lower income women relates to a lack of knowledge on the health benefits connected to breastfeeding and the uncertainty in regards to breastfeeding methods. Another large problem nursing mothers face is the lack of social support among their peers, partners, and parents. The mass media has discouraged breastfeeding in both direct and indirect ways. Problems with job inflexibility is another significant barrier many low income women face in regards to nursing. Additionally, a lack of legal protection for breastfeeding troubles mothers across the socioeconomic lines. Finally, the policies of the Special Supplemental Nutrition Program for Women, Infants, and Children (from here on referred to as WIC) has had mixed effects on low-income women and breastfeeding. All of these factors combine to create a perception that breastfeeding is socially unacceptable or not worth the hassle it takes. This paper will explore each of the barriers outlined earlier in separate sections. At the end, suggestions for how to handle each barrier will be proposed.

## Washington and Lee University

### Information Inequality: Lack of Knowledge on Health Benefits and Breastfeeding Methods

Possibly one of the most important barriers to initiation of breastfeeding in low-income groups is the lack of knowledge on the health benefits for the children and the mother associated with breastfeeding. During a 1990 study of low-income black women in urban settings, the authors found that when it came to educating this subpopulation, there needed to be more emphasis on how breastfeeding was the healthiest choice that mothers could make for their infants.<sup>26</sup> Another study that concentrated on low-income women regarding breastfeeding stated that there is “room for improving breast-feeding knowledge of at-risk populations.”<sup>27</sup> Much of their sample was unaware of the multiple health benefits and hidden conveniences of breastfeeding, especially

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<sup>26</sup> Kistin et al, “Breast-Feeding Rates Among Black...”, p 745

<sup>27</sup> Mitra et al, “Predictors of Breastfeeding Intention...”, p 69

in terms of the cost savings relative to formula. Related to lack of awareness of the health benefits was the concern about when to introduce supplemental foods, “[m]any women believed they lacked important information such as how and when to introduce supplements, what they should be eating, and the effects of specific foods on the infant.”<sup>28</sup>

The second largest problem regarding the lack of education in terms of breastfeeding was mothers’ insecurity or uncertainty over proper methods, with methods ranging from how to have the child latch on to what diet should be followed while breastfeeding. Multiple studies stressed the need for this style of practical information. In the Georgia breastfeeding promotion program for low-income women study, “[w]omen also mentioned having a hard time getting started and lacking the confidence to keep going.”<sup>29</sup> For mothers who were returning to work “[e]ducation on using a breast pump and creating a breastfeeding friendly work environment” was considered to be highly beneficial.<sup>30</sup> Overall, women were shown to increase the duration of their breastfeeding time when they felt more confident in their knowledge of the healthy diet balance encouraged for breastfeeding, but were aware that even without a perfect diet it was still possible to breastfeed with large benefits for both the child and mother.<sup>31</sup> As several studies state, it is important for the information the women receive on methods directly related to breastfeeding and additional nutrient requirements to not conflict, as it leads to confusion and frustration for the new mothers.<sup>32</sup>

One possible solution to the information inequality facing low-income women is to have individual sessions with an educator as part of the prenatal process. Some of the topics that should be discussed include:

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<sup>28</sup> Ahluwalia et al, “Georgia's Breastfeeding Promotion Program...”, p 4.

<sup>29</sup> Ahluwalia et al, “Georgia's Breastfeeding Promotion Program...”, p 4.

<sup>30</sup> Arora et al, “Major Factors Influencing Breastfeeding Rates...”, p 3.

<sup>31</sup> Schafer et al, “Volunteer Peer Counselors Increase...”, p 104

<sup>32</sup> Ahluwalia et al, “Georgia's Breastfeeding Promotion Program...”, p 4 & Kistin et al, “Breast-Feeding Rates Among Black Urban...”, p 745



women's reasons for choosing breast- or bottle-feeding, common myths about breast-feeding, how breast milk is produced (emphasizing supply and demand), health benefits believed associated with breast feeding, common inhibitions or problems with breast-feeding (feeding in public, friends or relatives with negative feelings about it) and ways women overcome them, and how to go to work/go to school/lead a busy life and still breast-feed (ie, use of breast pumps and milk storage) (Kistin et al 742).<sup>33</sup>

Additionally, having hospital staff dedicated to boost knowledge of breastfeeding benefits and methods has been shown to increase the number of mothers who initiate breastfeeding. One study “reported a steady increase in breastfeeding rates in New York City to 58% that was possibly associated with a New York state regulation requiring a lactation coordinator to be designated at each hospital.”<sup>34</sup> One of the most effective methods of increasing the number of women who initiated breastfeeding in the Georgia study was the loaning of a breast pump. This same study found that having dedicated staff available to help women understand “the skills of latching on correctly immediately after their infant was born” also increased breastfeeding rates.<sup>35</sup> The same study found that having a hotline available for mothers to call in with questions regarding breastfeeding helped encourage mothers to continue nursing, as they had an easy resource for handling common breastfeeding difficulties.

While some of these education programs have helped women change their mind as late as 30 weeks into the pregnancy or after the delivery, most women make their feeding decision early on in the fertility process. Arora et al has found that “in 78% of cases, the type of feeding is decided before pregnancy and during the first trimester.”<sup>36</sup> This leaves the best time to discuss feeding opinions, pros and cons, as well as handling misinformation during the early months or

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<sup>33</sup> Kistin et al, “Breast-Feeding Rates Among Black Urban...” p 742.

<sup>34</sup> Arora et al, “Major Factors Influencing Breastfeeding Rates...”, p 4.

<sup>35</sup> Ahluwalia et al, “Georgia's Breastfeeding Promotion Program...” p 5.

<sup>36</sup> Arora et al, “Major Factors Influencing Breastfeeding Rates...”, p 4.

before women plan on getting pregnant. Finally, even in cases where women do have knowledge of the health benefits of breastfeeding, there are often additional barriers in their life that override this knowledge.

### Missing Social Support: Women's First Safety Net

Education on availability of support groups regarding breastfeeding was shown to have the largest effect on duration of feeding. Support groups as defined here include the peer based support groups composed of other breastfeeding mothers, the nursing mothers' partners in child rearing, and other family members or friends who influence the mother's decision in breastfeeding. When they lacked support, especially from their mothers or childrearing partners, they are more likely to discontinue breastfeeding. A study conducted in Pennsylvania revealed that the main sources of information about breastfeeding were concentrated along personal lines with over 30% of their main sources of information being family, nearly 10% being friends, and a medical professional (doctor or nurse) coming in at roughly 15%.<sup>37</sup> An example of a possibly alarming trend from the 2004 study on breastfeeding rates:

Our previous study found that 31% of US adults believe that infants ought to be fed cereal or infant food by 3 months. If mothers are told by their family and friends that their infants should be fed solid foods in the first few months, they will find it difficult to avoid feeding their infants solids until 6 months of age, despite the recommendations by the World Health Organization and AAP to exclusively breastfeed for the first 6 months of life.<sup>38</sup>

Furthermore, "the influence of the father of the baby (or significant other) was more powerful than the influence of all other kin, including that of the woman's mother."<sup>39</sup> Most low income mothers are not exposed to the information that AAP and WHO promote, instead relying on personal

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<sup>37</sup> Arora et al, "Major Factors Influencing Breastfeeding Rates...", p 4.

<sup>38</sup> Li et al, "Breastfeeding Rates in the United States...", p 34.

<sup>39</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 307.

networks to figure out the proper way to raise their child.

With this information, it becomes clear that breastfeeding education must not be limited to the nurturing mothers alone. It is important to educate the community around her as well if she is to have a better chance at reaching the six-month goal. The most important person to educate as well would be the woman's childrearing partner. They are especially important targets for increasing awareness, as a study that focused on the major factors influencing breastfeeding rates found that the top reported reason for choosing bottle feeding over breast feeding was the perceived baby's father's feelings (although it was closely followed by "Can't tell if baby is getting enough milk if breastfeeding").<sup>40</sup>

Another solution is to create education opportunities outside of the hospital or clinic. It would be especially helpful if with other possible locations for breastfeeding awareness and education classes were being held in "churches, health clubs, community centers, and schools."<sup>41</sup> The same study also promoted "distributing flyers and hanging educational posters at public gatherings" in order to expand the educational opportunities for the woman's support group.<sup>42</sup>

One mother expressed:

I wish that I would have continued [breastfeeding]. And probably being in a group like this [focus group with other WIC participants], I probably would still be doing it [breastfeeding]. But I just didn't have a whole lot of support. I needed some extra support during that time.<sup>43</sup>

In a case study located in Iowa, the peer group support system led to increases in the duration of breastfeeding. "At 12 weeks, the end of the data collection period, 0 percent of control and 43

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<sup>40</sup> Arora et al, "Major Factors Influencing Breastfeeding Rates...", p 4.

<sup>41</sup> Mitra et al, "Predictors of Breastfeeding Intention...", p 69

<sup>42</sup> Mitra et al, "Predictors of Breastfeeding Intention...", p 69

<sup>43</sup> Ahluwalia et al, "Georgia's Breastfeeding Promotion...", p 5.

percent of intervention group women were still breastfeeding.”<sup>44</sup> Having these support groups clearly make a difference in the lives of nursing mothers struggling to find encouragement.

Additionally, several studies have pointed to the fact that by making the information culturally relevant and sensitive to the needs of the community, mothers and their support groups are more likely to take to the information. It is important to note that “the decision to breastfeed is part of a broader cultural context of community norms and values involving the attitudes of social and family support and personal networks.”<sup>45</sup> In order to empower these women, we must empower and educate not only them but their spouses, significant others, family members, friends, and members of their community. As a study of low-income African-American women from DC showed, “[p]hysicians and nurses caring for these high-risk women should take a more directive approach, and should share culturally relevant information supporting mothers’ decision to breastfeed their infants.”<sup>46</sup> When this information becomes more accessible to the community at large, early on in most young adults’ lives, based on current studies, there should be an increase in the number of women who initiate breastfeeding with a longer duration time as well.

Finally, creation of peer support groups offer additional social support that nursing mothers can find comforting. Women who had been involved with a peer support group found it to be both empowering and reaffirming their choice to stick with breastfeeding. This was evident in their longer duration of breastfeeding.<sup>47</sup>

### Misinformation and the Mass Media

Misinformation plays an equally strong role in mothers’ decisions on whether

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<sup>44</sup> Schafer et al, “Volunteer Peer Counselors Increase...”, p 105

<sup>45</sup> Ryan, “The Resurgence of Breastfeeding...”, p 4

<sup>46</sup> Sharps et al, “Health Beliefs and Parenting Attitudes...”, p 418

<sup>47</sup> Kistin et al, “Breast-Feeding Rates Among Black...” p 742 & Schafer et al, “Volunteer Peer Counselors Increase...”, p 104 & Sharps et al, “Health Beliefs and Parenting Attitudes...”, p 417

breastfeeding or bottle feeding is in the infant's (and their own) best interest. Multiple studies have pointed to misinformation causing complications in the woman's attempt to initiate breast feeding, or discouraging them from initiating all together. One of the most common misunderstandings for new mothers was that the milk they were producing was not enough for their child's needs. Other common misinformation points included nursing mothers requiring special diets, breastfeeding getting in the way of a busy lifestyle, and breastfeeding as unavoidably painful.<sup>48</sup> Two problematic misconceptions that were common among low-income African-American women were focused on pain and breastfeeding in public. In regards to concerns about pain while:

[M]ost women interviewed did not actually know anyone who had breastfed, beliefs or anticipation about the pain involved in breastfeeding was common, including stories about cracked and bleeding nipples or pain related to breast engorgement. Most women who talked about the pain of breastfeeding believed it was inevitable, and many thought that it would last until they weaned their infant.<sup>49</sup>

One can only wonder where these misconceptions stem from, as well as the most frightening idea of why public breastfeeding should be avoided: "If a guy sees a breast, his hormones will react to what he sees. I think that breastfeeding out in public will cause you to get raped or something."<sup>50</sup> With high (mostly unfounded) fears, it is understandable that few women among this demographic initiate breastfeeding or continue for any extended period of time.

While it is unclear where some of the above extreme examples stem from, media misrepresentation of breastfeeding has also caused serious problems. While the media's sexualization of the feminine body is well known and documented, it is important to bring to

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<sup>48</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 308 & Schafer et al, "Volunteer Peer Counselors Increase...", p 106 & Kistin et al, "Breast-feeding Rates Among Black Urban...", p 745.

<sup>49</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 308.

<sup>50</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 308.

attention in the context of breastfeeding. Compared to the previous decades, America has had massive decreases in daily life examples of breastfeeding. This leaves the media, ranging from printed material to T.V. commercials, as American society's new measuring stick for what is normal. While magazines and television are saturated with images of mothers who bottle feed their children, news and entertainment sources have whipped up additional fear and misconceptions about breast feeding. Several examples of this fear mongering include a *Chicago Hope* television episode and a 1994 *Wall Street Journal* article. The *Chicago Hope* story was a television show that later spawned additional news stories with one of the central plots focusing on a six-week-old child who died from starvation due to being exclusively breastfed. While this storyline was based on a true case, no mention was made of some of the facts around the case, specifically that:

Ms. Walrond reported that she received no information from health providers regarding the possibility that her surgically reduced breasts might not produce sufficient milk, and she was refused medical care for her son because he had no Medicaid card.<sup>51</sup>

The Pharmaceutical Research & Manufacturers of America reported that they had to back the episode of *Chicago Hope* "out of a sense of responsibility...viewers can expect to be educated on issues such as...the risks associated with breastfeeding."<sup>52</sup> This organization includes "major infant formula companies,"<sup>53</sup> Meanwhile the *Wall Street Journal* article that focused on 'yuppie' mothers claimed that these young, urban professionals were starving their kids in their "overzealous attempts to exclusively breastfeed" causing some of their children to die from dehydration.<sup>54</sup> Even with multiple sources of medical research proving the importance and

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<sup>51</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 306.

<sup>52</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 306.

<sup>53</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 306.

<sup>54</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 306.

benefits of breastfeeding, the average American is more likely to come across a *Chicago Hope* or killer ‘yuppie’ mother than a recent article outlining yet another newly discovered benefit of breast milk.

Even with all of the negative misinformation about breastfeeding, overall results have shown that when proper education has been made available to women from low-income backgrounds, they are willing to reconsider their stance on bottle feeding or strengthen their resolve to breastfeed. The study performed by Dr. Mitra et al. proved their hypothesis “that knowledge and attitudes could explain the observed differences in breastfeeding behavior among socioeconomic groups of women” to be true.<sup>55</sup> While the education of the support group was emphasized earlier, the role of the physician must not be downplayed. As women “who have received specific, positive advice from their physicians are more likely to breastfeed.”<sup>56</sup> There have been many positive results of the effect breastfeeding education has had on low-income women. While the recent trend in the number of women who breastfeed has increased overall, the most significant gains, statistically speaking, were within the groups of women who traditionally are underrepresented in breastfeeding (black, young, Southern, first time mothers, low education and low income, full time employed, and participating in WIC).<sup>57</sup> As Ryan states, this trend is particularly important because it showed the “effectiveness of breastfeeding promotion programs developed for WIC participants.”<sup>58</sup>

### Work and Breastfeeding: A Difficult Balancing Act

As the LaNisa case illustrated, trying to balance the demands of a job and the demands of breastfeeding can leave a mother trapped between two difficult situations. While working

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<sup>55</sup> Mitra et al, “Predictors of Breastfeeding Intention...”, p 67

<sup>56</sup> Ryans, “The Resurgence of Breastfeeding...”, p 4-5.

<sup>57</sup> Ryans, “The Resurgence of Breastfeeding...”, p 1.

<sup>58</sup> Ryans, “The Resurgence of Breastfeeding...”, p 4

mothers are nothing new, the numbers can still be surprising.

Women with infants and children are the fastest growing segment of the US labor force. Approximately 70% of employed mothers with children <3 years old work full-time; one third of these mothers return to work within 3 months after birth, and two thirds return within 6 months.<sup>59</sup>

This is hardly a recent trend. As early as 1990, “54% of new mothers were working by their child’s first birthday.”<sup>60</sup> Unlike LaNisa, many women choose to terminate breast feeding before they return to work. Common stopping points are the 6-week mark and the 3-month mark. Even with the increase in the number of women who initiate breastfeeding, the number of women who continue the duration to the one-year goal of the American Academy of Pediatrics is far under the goal of 50%, as of 2000 “only 17% of all mothers breastfed their babies at the recommended 1 year.”<sup>61</sup> Many women who know they will be returning to work full-time shortly after giving birth are less likely overall to even attempt breastfeeding in the first place. “Mothers who expected to work full-time had an adjusted initiation rate 14.3 percentage points lower than that of mothers who did not expect to work.”<sup>62</sup> This is more devastating than many people realize, due to the importance of colostrum. As stated earlier in the paper, colostrum offers serious boosts to the infant’s immune system that cannot be found in any other source. Even just an early initiation of breastfeeding without continuation helps the child’s immune system immeasurably, but this fact is not approached in most educational settings.

As Kimbro points out about her study, given that her sample is “primarily low-income women, it is unlikely that the mothers have the luxury of deciding on their postpartum work plans

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<sup>59</sup> Li et al, “Breastfeeding Rates in the United States...”, p 35.

<sup>60</sup> Kimbro, “On-the-Job Moms...”, p 19.

<sup>61</sup> Kimbro, “On-the-Job Moms...”, p 20.

<sup>62</sup> Fein & Roe, “The Effect of Work Status...”, p 1043.



based on their preferences for breastfeeding.”<sup>63</sup> Many of these women’s households are dependent on their income in order to stabilize the finances, and as a result feel pressure to work even if they would have preferred to stay at home to take care of the newborn. As expected the “timing of quitting [breastfeeding] and the return to work are closely linked, and that it is difficult (or unappealing) to combine breastfeeding and work.”<sup>64</sup> The study also found that if the mother manages to combine work and breastfeeding for the first month, her likelihood of stopping before the six-month period decreases. Stay-at-home mothers and professional mothers have similar levels of breastfeeding duration, which was expected as “given the typically high levels of education for professionals and the greater time devoted to child-rearing of SAH Moms.”<sup>65</sup> Another unsurprising revelation was that mothers who worked in administrative and manual labor jobs were more likely to quit breastfeeding than the Stay at Home mothers. As Kimbro states, this “could indicate a lack of flexibility in their working environment” as we were shown with LaNisa’s experience.<sup>66</sup> Surprisingly, women who are in service sector jobs, such as “waitresses, bus drivers, maids, or childcare workers” have similar breastfeeding durations as Stay at Home mothers.<sup>67</sup> This trend reflects the fact that “mothers with these types of jobs have flexibility in scheduling, so are better able to incorporate breastfeeding into their daily routines.”<sup>68</sup>

The study done by Fein and Roe concentrated on how the amount of time spent working after giving birth affected the duration of breastfeeding. Overall, if a woman was working full time by the three month period, there was a serious negative effect on how long she breastfed the child. Meanwhile, unsurprisingly, women who did not work at all had the longest durations of

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<sup>63</sup> Kimbro, “On-the-Job Moms...”, p 21.

<sup>64</sup> Kimbro, “On-the-Job Moms...”, p 25.

<sup>65</sup> Kimbro, “On-the-Job Moms...”, p 25.

<sup>66</sup> Kimbro, “On-the-Job Moms...”, p 25.

<sup>67</sup> Kimbro, “On-the-Job Moms...”, p 26.

<sup>68</sup> Kimbro, “On-the-Job Moms...”, p 25.

breastfeeding. Fein and Roe found that women who worked part time fell in-between these two other categories in terms of duration of breastfeeding. As a result, they came to the conclusion that:

[p]art-time work is an effective strategy to help mothers combine breast-feeding and employment. Expecting to work part-time does not significantly decrease the percentage of mothers who initiate breast-feeding, whereas expecting to work full-time does.<sup>69</sup>

However, this only becomes possible if the working mother is able to afford a decrease in her income. This is a serious assumption in the case of low-income workers. Other possibilities that were not considered in this study would have been flextime, where the employee might consider coming in on weekends as well and working half shifts in order to better accommodate a newborn's feeding patterns. While this would not work with all jobs, many jobs could be more flexible in the hours that individuals work, especially if they are twenty-four hour based places of employment.

The Bentley et al. study on low-income African-American women also found difficulties regarding work and breastfeeding. Even when welfare reform of 1996 gave women six months of leave time after giving birth, with the expectations that they will have to work as well as the overall limited time they had on welfare's new system, many women felt doubts about taking the time to breastfeed. Many low-income workers find they have "logistical difficulties of pumping in a work environment that does not support breastfeeding" as well as "lack of social support or role models" needed to support their decision to breastfeed and so "may find a simple solution in a decision to stop breastfeeding."<sup>70</sup>

Even with the studies of which job sectors are friendlier towards breastfeeding and which

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<sup>69</sup> Fein & Roe, "The Effect of Work Status...", p 1045

<sup>70</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 308.

job work patterns/intensity levels are friendlier towards breastfeeding, overall the research shows that:

[M]others are having a hard time combining breast-feeding and work, which puts working mothers and their infants at a health disadvantage compared to those mothers who stay at home with their children.<sup>71</sup>

When low-income mothers are not given the same opportunities to place their children's health first due to income disparities, there are serious problems of injustice. Having these barriers places the next generation of low-income children at a serious disadvantage for their health and future capabilities.

### Legal Protection of Nursing Mothers

As the case of LaNisa demonstrated, the laws protecting women in regards to breastfeeding are often confusing at best, riddled with gaps at worse, or completely lacking at all. There are laws that support nursing mothers, such as laws protecting against gender and pregnancy discrimination and "Right to Breastfeed Act" that "protects and ensures a woman's right to breastfeed on all federal property."<sup>72</sup> Meanwhile the states have passed a variety of different laws that make it hard to determine rights. A summary of these laws include the following: forty-four states and the District of Columbia as well as the Virgin Islands "have laws with language specifically allowing women to breastfeed in any public or private location."<sup>73</sup> Twenty-eight states, the District of Columbia and the Virgin Islands have exempted breastfeeding from public indecency laws. Twenty-four states, the District of Columbia, and Puerto Rico have laws regarding breastfeeding in the workplace. Twelve states and Puerto Rico exempt breastfeeding mothers from jury duty. However, to date, only five states and Puerto Rico "have implemented or

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<sup>71</sup> Kimbro, "On-the-Job Moms...", p 25

<sup>72</sup> Bentley et al, "Breastfeeding Among Low-Income...", p 307.

<sup>73</sup> Breastfeeding State Laws

encouraged the development of a breastfeeding awareness education campaign.”<sup>74</sup> In order to prevent another case such as LaNisa’s from happening again, additional laws need to be passed to protect the rights of nursing mothers. Many of these suggested laws have been passed in California.

First and foremost, nursing mothers need to be protected in public. Specifically, just as people have the right to eat food in nearly any public or private location, nursing mothers need to know that they have the right to feed their children in any public or private location. This is the best way to protect the nursing mother’s right to take part in society. In California, a law was passed that: “allows a mother to breastfeed her child in any location, public or private, except the private home or residence of another, where the mother and the child are otherwise authorized to be present.”<sup>75</sup> On a similar note, breastfeeding needs to be specifically exempted from indecent exposure laws.

The second most important protection that nursing mothers need, which is especially important to low-income women, is protection in the workplace. Not only should employers (both private sector employers and public sector) be encouraged to support their employees’ desire to breastfeed by offering adequate facilities for expressing milk and/or feeding their children, but they should be given incentive to do so. Additionally, expressing breast milk should be given the same protection and privacy that other necessary bodily functions are given. Employees should not be forced to request to get permission before seeking to pump milk. When smoking breaks, which decrease public health and safety, are given more protection than breastfeeding is, that is a sign of an ill guided society.

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<sup>74</sup> Breastfeeding State Laws

<sup>75</sup> Breastfeeding State Laws

Additional laws that protect nursing mothers' ability to participate in society to the fullest include a law that Virginia passed which "stipulates that childbirth and related medical conditions specified in the Virginia Human Rights Act include activities of lactation, including breastfeeding and expression of milk by a mother for her child."<sup>76</sup> It is important to make clear that the choice to breastfeed is an essential right protected against gender discrimination.

Finally, it is important that the general public is aware of these laws. Even with the legislation in place, it will help no one if the population is ignorant of its passing. Another law that was passed in California that should be considered on the federal level, especially after additional protection is passed, is:

California Health and Safety Code 123360 and 1257.9 require that the Department of Public Health include in its public service campaign the promotion of mothers breastfeeding their infants. The department shall also develop a training course of hospital policies and recommendations that promote exclusive breastfeeding and specify staff for whom this model training is appropriate. The recommendation is targeted at hospitals with exclusive patient breastfeeding rates ranked in the lowest twenty-five percent of the state.<sup>77</sup>

It is vital to make new mothers and soon to be mothers aware of these laws so that they know what their rights are. Often women are uncertain of their own rights in the public setting while breastfeeding, which only encourages the amount of discomfort and embarrassment they feel during the nursing process. Several studies list embarrassment as one of the key reasons why women do not attempt to initiate breastfeeding or cut its duration short of the six-month goal.<sup>78</sup> It is important to promote these reforms on a federal level. Otherwise the protection that nursing mothers, and as a result their newborn children, will continue to vary by the state, leaving many people vulnerable.

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<sup>76</sup> Breastfeeding State Laws

<sup>77</sup> Breastfeeding State Laws

<sup>78</sup> Ahluwalia et al, "Georgia's Breastfeeding Promotion Program...", p 4 & Kistin et al, "Breast-feeding Rates Among Black Urban...", p 744.

## Women, Infants, and Children & Additional Effects

Overall, the effects of WIC on low-income infants have been positive. With pregnant women having access to more nutritious foods, there have been less severely underweight and malnourished infants being born. However, there is a downside of the program, in that it indirectly “discourages breast-feeding,”<sup>79</sup> Information on the affect WIC has on infants and their access to breast milk is contradictory at best. On one hand, “mothers of children who received WIC benefits during the first year of life were less likely to initiate or maintain breastfeeding than where mothers whose child was not in WIC.”<sup>80</sup> However, on the other hand, “WIC participation was associated with a statistically significant increased probability of breastfeeding initiation of about 0.07 at the sample means.”<sup>81</sup> These differences in results might be explained by the concentrated demographic that the Chatterji and Brooks-Gunn study was focusing on in comparison to the broad spectrum of women focused on the Li et al study. Li et al also offered the explanation for the behavior:

It is not clear why mothers of children who were eligible for WIC but did not enroll had much higher breastfeeding rates. Because WIC provides free formula for eligible children, it is possible that women who are determined to breastfeed feel less need to participate in WIC.<sup>82</sup>

This behavior pattern is shocking, as the WIC program offers exclusively breastfeeding mothers additional food packages in order to help the mother ensure that her milk is supporting enough nutrients for both her and her child to have a healthy experience.

The largest reason why WIC is associated with discouraging breastfeeding has to do with

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<sup>79</sup> Currie, “The Invisible Safety Net”, p 76.

<sup>80</sup> Li et al, “Breastfeeding Rates in the United States...”, p 33.

<sup>81</sup> Chatterji & Brooks-Gunn, “WIC Participation, Breastfeeding Practices...”, p 1324

<sup>82</sup> Li et al, “Breastfeeding Rates in the United States...”, p 36.

the cozy relationship between the formula companies and the program. Mothers who qualify for WIC have access to free formula, making formula a very attractive alternative to breastfeeding, as they do not acquire as much additional costs as they would have otherwise. The way the formula is given away is the subject of criticism. As Currie explains, the WIC program is able to give away vouchers for WIC participants to ‘purchase’ formula. The WIC participants end up making roughly 50% of the total sales of formula in the United States. The problem is the exclusive relationship that is developed in the process, where each state has a specific company that they offer their citizens. “That is, WIC participants receive vouchers that can be redeemed only for a particular brand of formula, making the manufacturer of that brand the sole supplier to the WIC market in that state.”<sup>83</sup> This takes away a powerful financial incentive for women to breastfeed. However, removing free formula will not only be politically difficult, it will also be potentially dangerous. As the earlier barriers outlined show, it is not merely finances that keep women from breastfeeding. Removing free formula could lead to mothers watering down the formula or introducing supplementary foods too early.

A few suggestions on how to handle these difficulties include increasing the education of the WIC participants, providing financial incentives for women to breastfeed, and removing the exclusive relationship between formula companies and state WIC programs. It is important that WIC participants become aware of the health benefits associated with breastfeeding for their children. Even with all of the barriers against breastfeeding, a study in New York showed that the 103 WIC participants who breastfed their babies “chose to do so because of their beliefs about the benefit to the baby’s health and the nutrition and the closeness between the infant and mother.”<sup>84</sup> Additionally many women have brought up the problems with getting support from the WIC

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<sup>83</sup> Currie, “The Invisible Safety Net”, p 77

<sup>84</sup> Sharps et al, “Health Beliefs and Parenting Attitudes...”, p 417

clinics due to problems such as scheduling taking excessively long and the need for more staff “because clinics were so short-staffed that some staff were rude and burned out.”<sup>85</sup> Additionally, instead of attempting to remove free formula, which might place more infants at risk, it might be more prudent to offer additional help to mothers who manage to make it to the breastfeeding milestones. A small supplement amount of cash or food credit might be offered to mothers who have managed to reach the one-month, three-month, and six-month period of exclusively breastfeeding. Finally, the ties between a single formula supplier and the state run WIC programs need to be cut. Whenever possible, rebates should be offered for any formula supplier in the state, but at very least one additional supplier. Otherwise, should there be a serious issue with the formula supplier, such as problems with the manufacturing that contaminated the formula, these mothers are left without a real choice in their ability to protect their children.

#### Helpful Hospital Practices

Hospitals play a key role in the nutrition of infants and the education of new mothers. As such, the policies they have regarding prenatal care and post delivery care can shape the choices made by women. There have been multiple studies on the effects of maternity ward policies on if a child is breastfed. One study linked “commercial discharge packs are linked to poor lactation success, particularly among vulnerable subgroups such as primiparae and poor women in developing countries.”<sup>86</sup> Giving already vulnerable and confused new mothers instant formula encouraged them to give up on breastfeeding the first instant it was difficult, sacrificing health benefits for ease. In addition, they found that having the infant stay in the same room as the mother “had a positive impact on short- and longer-term breastfeeding success,” especially when

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<sup>85</sup> Ahluwalia et al, “Georgia's Breastfeeding Promotion Program...”, p 4.

<sup>86</sup> Perez-Escamilla et al, “Infant Feeding Policies in Maternity...”, p 91-92.



paired with breastfeeding promotional messages and guidance.<sup>87</sup> Furthermore their study confirmed that by allowing the mother to breastfeed on demand of the infant, they were able to avoid supplementary formula feeding while increasing breast milk production and infant weight gain.<sup>88</sup> There were benefits for the mother to follow the on-demand schedule of feeding, as they experienced significantly less “sore nipples (13% vs 27%) or breast engorgement (17% vs 34%)”.<sup>89</sup>

Meanwhile the meta-analysis that Dyson et al completed in 2007 had two main findings: “the interventions were effective overall” with “all forms of health education included in this review seem to have increased breastfeeding rates.”<sup>90</sup> The interventions that this study analyzed included varying levels of one-on-one interaction and information distribution in the form of lectures or packets as well as follow up on progress at later points in time. The other main finding of the Dyson et al analysis was that “hospital breastfeeding promotion packs compared to formula-company produced materials about infant feeding showed this intervention to be ineffective at increasing initiation rates of breastfeeding.”<sup>91</sup> Both of these findings are equally important, as they stress how programs can be fluid to fit the needs of the individuals and communities they serve, but at the same time emphasize that there is importance in figuring out which methods do not work and weeding them out of the program to free up resources for more effective methods.

Finally, encouragement of the Baby Friendly Hospital Initiative across hospitals in the United States would help low income mothers receive access to the support they need for

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<sup>87</sup> Perez-Escamilla et al, “Infant Feeding Policies in Maternity...”, p 92.

<sup>88</sup> Perez-Escamilla et al, “Infant Feeding Policies in Maternity...”, p 94-95.

<sup>89</sup> Perez-Escamilla et al, “Infant Feeding Policies in Maternity...”, p 95.

<sup>90</sup> Dyson et al, “Interventions for Promoting the Initiation...”, p 6

<sup>91</sup> Dyson et al, “Interventions for Promoting the Initiation...”, p 6

breastfeeding. A study comparing breastfeeding rates in average hospitals against the rates in hospitals that meet the requirements to be listed as Baby Friendly show that “Ten Steps to Successful Breast-feeding operate as a model for breastfeeding promotion and support, creating breastfeeding-friendly hospital systems that have consistently been linked with increased breastfeeding success.”<sup>92</sup> These steps include having a written policy regarding breastfeeding that is regularly communicated to the staff, informing mothers about the health benefits, and showing mothers how to breastfeed.<sup>93</sup> Raising the number of hospitals that engage in these practices, along with the other seven outlined by the BFHI, would help create a better safety net for low-income mothers who might not have the knowledge needed to navigate breastfeeding for the first time.

#### First Steps Forward

Recently passed, the Health Care Reform offered additional protection for working mothers who choose to breastfeed. Now companies that have over 50 employees are expected to offer "a place, other than a bathroom, that is shielded from view and free from intrusion from co-workers and the public, which may be used by an employee to express breast milk."<sup>94</sup> These requirements are easy to justify, as a recent study released showed that if more mothers breastfed their children for the first six months of life “nearly 1,000 lives and billions of dollars each year” could be saved.<sup>95</sup> By the federal government showing these shifts in cultural norms and expectations, more mothers will consider breastfeeding to be worth the hassle (as there will be less hassle) and thereby more money will be saved, as will more lives.

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<sup>92</sup> Merewood et al, “Breastfeeding Rates in US Baby-Friendly...”, p 633

<sup>93</sup> “The Ten Steps to Successful Breastfeeding”

<sup>94</sup> Landau, “Breastfeeding Rooms hidden in...”

<sup>95</sup> Falco, “Study: Lack of Breastfeeding costs...”

## Conclusion

Breastfeeding offers many women a best foot forward for their children's and their own health while easing the financial burden of modern childrearing. However, women at risk who are highly disadvantaged either due to being young, lack of education, or are a racial minority, often face additional structural barriers to this method of parenting. Many of them do not even consider breastfeeding a viable option due to the obstacles in place. Multiple methods have been tested and studied to see which way is the most effective at increasing the number of women who initiate breastfeeding and continue the duration. It is important to note that there is no one correct answer for every situation. Depending on the cultural background, community context, and additional factors, what would be effective in one location might face a wall in another. Methods ranged from volunteer systems, paid employees, advisors, peer support groups, at home visits, to individual classes, group classes, aggressive media campaigns, and passive brochures given at the end of the hospital stay. They often respond to grassroots based approaches to gaining support through peer based support groups, but will also need and listen to the consistent advice of a respected medical figure. However, these things alone will not resolve the issue. Legal changes and cultural changes must take place in order to fully give women the choice to breastfeed, especially in the cases of low-income women who are more likely to engage in manual based labor. When women feel welcomed to nurse in their communities, they will respond by breastfeeding their children, the best health opinion available to them.

## Bibliography

- Adcock, Maria. "Court upholds firing of breastfeeding mom." *Long Island New Mom Examiner*. Examiner.com, 02 Sep 2009. Web. 5 Apr 2010.  
<<http://www.examiner.com/x-19956-Long-Island-New-Moms-Examiner~y2009m9d2-Court-Upholds-Firing-of-Breastfeeding-Mom>>
- Ahluwalia, Indu, Irene Tessaro, Laurence Grummer-Strawn, Carol MacGowan, and Sandra Benton-Davis. "Georgia's Breastfeeding Promotion Program for Low-Income Women." *PEDIATRICS*. 105.6 (2000): 1-6. Print.
- Allen, LaNisa, and CAROLYN MALONEY . *CNN*. Interview by Campbell Brown. 17 Sep 2009. TV. <<http://archives.cnn.com/TRANSCRIPTS/0909/17/ec.01.html>>.
- Allen v. totos/Isotoner Corp., 123 Ohio St.3d 216, 2009-Ohio-4231 8-9 (Supreme Court of Ohio). [Name v. Name, Volume number Reporter abbreviation Page number (Court Name). as taken from <http://www.lib.wsc.ma.edu/legalapa.htm> ]
- Arora, Samir, Cheryl McJunkin, Julie Wehrer, and Phyllis Kuhn. "Major Factors Influencing Breastfeeding Rates: Mother's Perception of Father's Attitude and Milk Supply." *PEDIATRICS*. 106.5 (2000): 1-5. Print.
- Bentley, Margaret, Deborah Dee, and Joan Jensen. "Breastfeeding Among Low-Income, African-American Women: Power, Beliefs and Decision Making." *Journal of Nutrition*. 133.1 (2003): 305-309. Print.
- Beyerlein, Tom. "Firing for breast milk pumping at work reaches high court." *Dayton Daily News* 05 Mar 2009, Print.
- "Breastfeeding: Frequently Asked Questions." *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, October 20, 2009. Web. 11 Apr 2010.  
<<http://www.cdc.gov/breastfeeding/faq/index.htm>>.
- "Breastfeeding State Laws." *National Conference of State Legislatures*. .S. Department of Health and Human Services, Mar 2010. Web. 11 Apr 2010.  
<<http://www.ncsl.org/default.aspx?tabid=14389>>
- Centers for Disease Control and Prevention. Breastfeeding Frequently Asked Questions (FAQs). , 2009. Web. 5 Apr 2010. <<http://www.cdc.gov/breastfeeding/faq/index.htm>>.
- Chatterji, Pinka, and Jeanne Brooks-Gunn. "WIC Participation, Breastfeeding Practices, and Well-Child Care Among Unmarried, Low-Income Motherse." *American Journal of Public Health*. 94.8 (2004): 1324-1327. Print.
- Currie, Janet. *The Invisible Safety Net: Protecting The Nation's Poor Children and Families*. Princeton: Princeton University Press, 2006. 76-77. Print.
- Dyson, L, F McCormick, and MJ Renfrew. "Interventions for Promoting the Initiation of Breastfeeding (Review)." *Cochrane Collaboration* 4 (2007): 1-24. Web. 11 Apr 2010.
- Evers, Susan, Lori Doran, and Kathryn Schellenberg. "Influences on Breastfeeding Rates in Low Income Communities in Ontario." *Candian Journal of Public Health*. 89.3 (1998): 203-207. Print.
- Falco, Miriam. "Study: Lack of breastfeeding costs lives, billions of dollars." *CNN* 06 Apr 2010, Web.  
<<http://www.cnn.com/2010/HEALTH/04/05/breastfeeding.costs/index.html?hpt=Sbin>>.
- Fein, Sara, and Brian Roe. "The Effect of Work Status on Initiation and Duration of Breast-Feeding." *American Journal of Public Health*. 88.7 (1998): 1042-1045. Print.
- GRANJU, KATIE. "Formula for disaster." *Salon* 19 JUL 1999: n. pag. Web. 8 Apr 2010.

- <<http://www.salon.com/life/feature/1999/07/19/formula/index.html>>.
- Kimbro, Rachel Tolbert. "On-the-Job Moms: Work and Breastfeeding Initiation and Duration for a Sample of Low-Income Women." *Maternal and Child Health Journal*. 10.1 (2006): 19-26. Print.
- Kistin, Naomi, Dessa Benton, Sita Rao, and Myrtis Sullivan. "Breast-Feeding Rates Among Black Urban Low-Income Women: Effect of Prenatal Education." *PEDIATRICS*. 86.5 (1990): 741-746. Print.
- Landau, Elizabeth. "Breastfeeding rooms hidden in health care law." CNN 09 Apr 2010, Web. <<http://www.cnn.com/2010/HEALTH/04/09/breast.feeding.society/index.html?iref=allse arch>>.
- Li, Ruowei, Natalie Darling, Emmanuel Maurice, Lawrence Barker, and Laurence Grummer-Strawn. "Breastfeeding Rates in the United States by Characteristics of the Child, Mother, or Family: The 2002 National Immunization Survey." *PEDIATRICS*. 115.1 (2005): 31-37. Print.
- Li, Ruowei, Sara B. Fein, Jian Chen, and Laurence M. Grummer-Strawn. "Why Mothers Stop Breastfeeding: Mothers' Self-reported Reasons for Stopping During the First Year." *PEDIATRICS*. 122.2 (2008): 69-76. Print.
- McDowell, Margaret, Chia-Yih Wang, and Jocelyn Kennedy-Stephenson. "Breastfeeding in the United States: Findings from the National Health and Nutrition Examination Surveys, 1999-2006." *NCHS Data Brief*. 5 (2008): 1-7. Print.
- Merewood, Anne, Supriya Mehta, Laura Chamberlain, Barbara Philipp, and Howard Bauchner. "Breastfeeding Rates in US Baby-Friendly Hospitals: Results of a National Survey." *PEDIATRICS*. 116.3 (2005): 628-634. Print.
- Mitra, Amal, Amal Khoury, Agnes Hinton, and Cathy Carothers. "Predictors of Breastfeeding Intention Among Low-Income Women." *Maternal and Child Health Journal*. 8.2 (2004): 65-70. Print.
- Newman, Jack. "How Breastmilk Protects Newborns." *breastfeedingonline.com* (1995): 1-4. Web. 11 Apr 2010. <<http://www.breastfeedingonline.com/HowBreastmilkProtectsNewborns.pdf>>.
- Perez-Escamilla, Rafael, Ernesto Pollitt, Bo Lonnerdal, and Kathryn Dewey. "Infant Feeding Policies in Maternity Wards and Their Effect on Breast-Feeding Success: An Analytical Overview." *American Journal of Public Health*. 84.1 (1994): 89-97. Print.
- "PROVIDING QUALITY NUTRITION SERVICES IN IMPLEMENTING THE BREASTFEEDING PROMOTION AND SUPPORT REQUIREMENTS OF THE NEW WIC FOOD PACKAGES." *Food and Nutrition Service*. WIC Program, May 20, 2009. Web. 11 Apr 2010. <[http://www.fns.usda.gov/wic/policyandguidance/BreastfeedingFoodPackageGuidance.p df](http://www.fns.usda.gov/wic/policyandguidance/BreastfeedingFoodPackageGuidance.pdf)>.
- Ryan, Alan. "The Resurgence of Breastfeeding in the United States." *PEDIATRICS*. 99.4 (1997): 1-5. Print.
- Schafer, Elisabeth, Mary Kay Vogel, Swarna Viegas, and Cheryl Hausafus. "Volunteer Peer Counselors Increase Breastfeeding Duration Among Rural Low-Income Women." *BIRTH*. 25.2 (1998): 101-106. Print.
- Schultz, Connie. "Working moms need a break from lactation regulations." *The Plain Dealer*. Cleveland.com, 02 Sep 2009. Web. 5 Apr 2010. <[http://www.cleveland.com/schultz/index.ssf/2009/09/working\\_moms\\_need\\_a\\_break\\_fro](http://www.cleveland.com/schultz/index.ssf/2009/09/working_moms_need_a_break_fro)

- m.html>.
- Sharps, Phyllis, Ayman El-Mohandes, M. Nabil El-Khorazaty, Michele Kiely, and Tessa Walker. "Health Beliefs and Parenting Attitudes Influence Breastfeeding Patterns Among Low-income African-American Women." *Journal of Perinatology*. 23. (2003): 414-419. Print.
- Shellenbarger, Sue. "Can Pumping at Work Get You Fired?." *The Juggle*. The Wall Street Journal, 31 Aug 2009. Web. 5 Apr 2010.  
<<http://blogs.wsj.com/juggle/2009/08/31/can-pumping-at-work-get-you-fired/>>
- Singh, Gopal, Michael D. Kogan, and Deborah L. Dee. "Nativity/Immigrant Status, Race/Ethnicity, and Socioeconomic Determinants of Breastfeeding Initiation and Duration in the United States, 2003." *PEDIATRICS*. 119.1 (2007): 38-46. Print
- State of Ohio. Did Firing for Extended Break to Use Breast Pump Violate State Law that Bars Discrimination Based on Pregnancy?. , 2009. Web. 5 Apr 2010.  
<<http://www.sconet.state.oh.us/PIO/oralArguments/09/0311/031.asp#080845>>.
- "The Ten Steps to Successful Breastfeeding." BFHI USA. Baby-Friendly USA, 2010. Web. 15 Apr 2010. <<http://www.babyfriendlyusa.org/eng/10steps.html>>.

# Washington and Lee University