

Breastfeeding and Socioeconomic Status

An Analysis of Breastfeeding Rates Among Low-SES Mothers

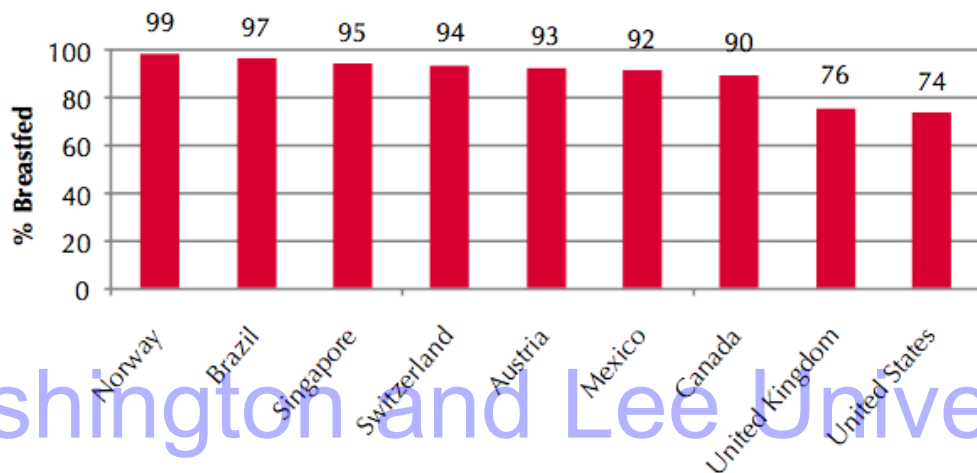
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INTRODUCTION

The United States Surgeon General released a *Call to Action to Support Breastfeeding* in 2011 that began with the statement, “One of the most highly effective preventive measures a mother can take to protect the health of her infant and herself is to breastfeed.”¹ Compared to other industrialized nations, the United States rates far below others in breastfeeding initiation.²

Figure 1: Infants Ever-Breastfed, Selected Nations

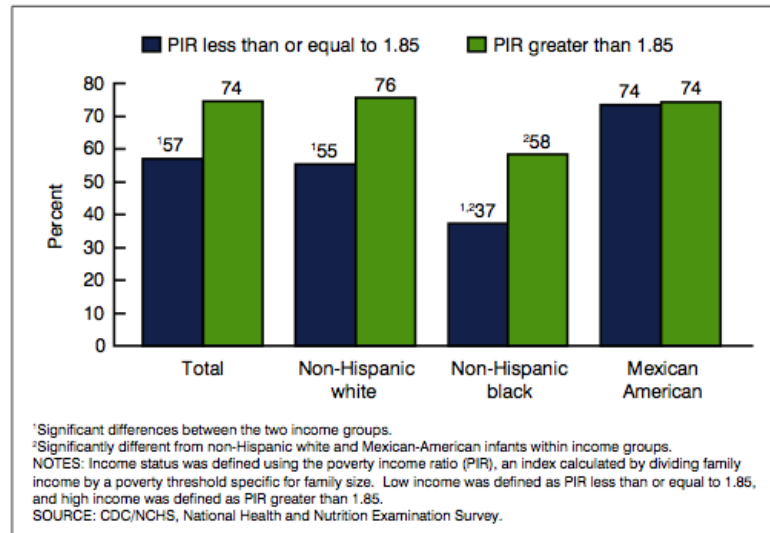


Though the United States has experienced growing rates of women who attempt breastfeeding, the decision to breastfeed seems to be correlated with higher socioeconomic status. The following figure from the Centers for Disease Control (CDC) and Prevention and National Center for Health Statistics show that between 1999 and 2006, the mother’s poverty income ratio was positively correlated with the mother initiating breastfeeding—meaning low income mothers were less likely to ever breastfeed their infants. Poverty income ratio is

¹ US Department of Health and Human Services. "Executive summary: The Surgeon General's call to action to support breastfeeding." *Breastfeed Med* 6 (2011): 3-5.

² Drago, Robert, Jeffrey Hayes, and Youngmin Yi. "Better health for mothers and children: Breastfeeding accommodations under the Affordable Care Act." *Institute for Women's Policy Research, Washington, DC* (2010). p. 3.

calculated as a ratio of the family's income to the defined poverty threshold. A PIR of less than or equal to 1.85 represented low income while a PIR of 1.85 or higher represented "high" income.³

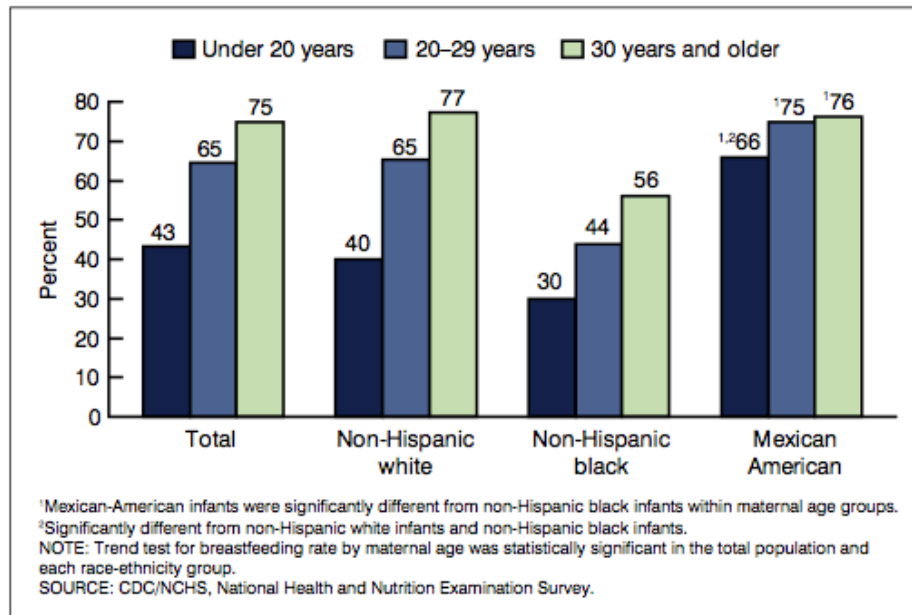


From this figure, it is evident that the percentage of women who ever breastfed their infants is significantly higher for women with greater PIR's for every ethnicity except Mexican Americans. Black Americans have the lowest rates of breastfeeding initiation in both the high PIR group and the low PIR group. In 2011, black Americans accounted for 27.6% of the nation's poor, compared to 9.8% of white Americans and 25.3% Hispanic Americans.⁴ This could imply that programs aimed to increase breastfeeding rates among poor women should focus specifically on the educational or cultural barriers that are unique to low-income mothers and most black mothers.

³ McDowell, Margaret A., Chia-Yih Wang, and Jocelyn Kennedy-Stephenson. *Breastfeeding in the United States: findings from the national health and nutrition examination surveys, 1999-2006*. US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2008. p. 3.

⁴ United States Census Bureau. "Table 3. People in Poverty by Selected Characteristics: 2010 and 2011." *Current Population Survey, 2011 and 2012 Annual Social and Economic Supplements*. 12 Sept. 2012. Web. 21 March 2013. <<http://www.census.gov/hhes/www/poverty/data/incpovhlth/2011/table3.pdf>>.

Furthermore, the Centers for Disease Control and Prevention National Center for Health Statistics show that between 1999 and 2006, women under the age of 20 were less likely than other age groups to ever breastfeed their infants.



With the knowledge that 59% of teenage pregnancies occur in household with income below 200% of the poverty line,⁵ the lower breastfeeding rates among women with low PIRs could be reflecting the choices made by large numbers of teenage mothers.

This paper focuses on the implications of the previous data for low-income women and their infants. It provides an overview of the science behind breastfeeding—including the physical and psychological benefits for both mother and child—and explores the various causes of lower breastfeeding rates among low-income women. It concludes by explaining what moral obligation we have to increase breastfeeding rates among low-income women and the policy implications of this obligation.

⁵ Manlove, Jennifer. "Teen Pregnancy and Repeat Teen Pregnancy: Data and Key Determinants: Presentation to OAPP Grantees." *Child Trends*. 6 Dec. 2011. Web. 21 March 2013. Slide 41. <http://www.childtrends.org/Files//Child_Trends-2011_12_06_SP_%20OAPPpresentation.pdf>.

BIOLOGICAL, PHYSIOLOGICAL, AND PSYCHOLOGICAL ASPECTS OF BREASTFEEDING

Breastfeeding Overview

During early pregnancy, the placenta releases high levels of the hormones estrogen and progesterone that lead to the development of mammary glands and ducts in the breasts of the pregnant woman. As the woman nears her delivery date, high levels of these hormones prevent lactation, or milk secretion, from the mammary glands by inhibiting the hormone *prolactin*. After the infant and placenta are delivered, however, levels of estrogen and progesterone drop drastically in the body, and prolactin is able to initiate lactation from the mammary glands.⁶

The first two to five days after birth, the mammary glands secrete a substance called *colostrum*. Colostrum is a thick, yellowish substance that is rich in antibodies, proteins, and other vitamins and minerals. This milk is extremely concentrated, providing the vulnerable newborn with “liquid gold” that does not overwhelm the infant’s digestive system and helps to ease the first bowel movements. Transitional milk then begins to be released from the mammary glands. This milk is higher in fat and lactose and causes the infant to start gaining weight. Eventually, mature milk is released and provides antibodies and nutrients to the infant throughout the entire period of nursing. Milk continues to be produced as long as the infant is nursing.⁷ When a mother chooses not to breastfeed her infant, milk builds up in the mammary glands and causes release of the hormone *prolactin inhibiting factor*. This hormone prevents the release of prolactin and ceases milk production within three to seven days.⁸

⁶ Jones, Richard Evan, and Kristin H. Lopez. *Human reproductive biology*. Academic Press, 2006. pp. 336-337.

⁷ Baumslog, Naomi, and Dia L. Michels. *Milk, money, and madness: The culture and politics of breastfeeding*. Westport: Bergin & Garvey, 1995. pp. 74-45.

⁸ Spatz, Diane. “I’m not breastfeeding. Will my breast milk dry up on its own?” *Babycenter.com*. Baby Center L.L.C. Web. 13 March 2013. <http://www.babycenter.com/404_im-not-breastfeeding-will-my-breast-milk-dry-up-on-its-own_11730.bc>.

If a mother decides to breastfeed her infant, when the infant suckles the nipple, sensory receptors cause the release of a hormone called *oxytocin* from the mother's brain. Oxytocin causes the contraction of muscle cells in the mammary glands, which leads to the ejection of breast milk into the baby's mouth. Once inside the infant, breast milk can be digested relatively quickly—within twenty minutes. Formula takes almost four hours to digest. Therefore, mothers who breastfeed can feed their babies on demand while mothers who use formula must feed their babies on a schedule to prevent digestive difficulties.⁹

Physical and Psychological Consequences for Mother

The hormonal changes that occur before and after delivery can have huge implications on the breastfeeding mother's physical and psychological well-being. They can also lead to psychological difficulties that act as a barrier to, and may be worsened by, attempting to breastfeed her infant. When the placenta is delivered after pregnancy, as noted above, the levels of progesterone and estrogen drop in the mother. This swift hormonal change can trigger postpartum depression in some women.¹⁰ This depression can be exacerbated when a woman has difficulties breastfeeding. In a qualitative novel of women with postpartum depression by Natasha S. Mauthner, a new mother described how breastfeeding worsened her feelings of depression after giving birth.

The first few weeks after the birth were hell...I always assumed breast-feeding would be easy and natural—not true. It was *always* painful...This discomfort made me *dread* [breastfeeding] and I was often in tears. So this combination of pain and lack of sleep just increased my anxiety and tearfulness.¹¹

⁹ Baumslag, Naomi, and Dia L. Michels. *Milk, money, and madness*. pp. 73, 77, 85.

¹⁰ Banks, Amy, Jessica Henderson Daniel, and Lauren Slater, eds. *The complete guide to mental health for women*. Boston: Beacon Press, 2003. p. 24.

¹¹ Mauthner, Natasha S. *The darkest days of my life: Stories of postpartum depression*. Cambridge: Harvard University Press, 2002. p. 37.

Another mother whose depression was worsened by struggles with breastfeeding and her infant's constant adverse reactions to breast milk decided to switch completely to formula feeding. She felt overwhelmed with guilt at first, but found solace in her decision over time. She spoke of the pressure that she put on herself and how breastfeeding is simply not right for every mother:

I did get over it. After all it was *my* baby and *my* body... There is a lot of propaganda and pressure to breast-feed, and rightly so, but I don't think we should forget those who *really* do find it difficult or for whatever reasons decide to bottle-feed their baby.¹²

As this mother implies, breastfeeding can provide natural benefits for the infant and mother, but breastfeeding is not easy for all who attempt it. While the rest of this section will outline the benefits of breastfeeding for the mother, it is important to remember that in instances when the physical or psychological health of the mother or infant is compromised, breastfeeding may not be a viable option.

Other hormonal changes after pregnancy, however, may be extremely beneficial to mothers who decide to breastfeed. Primarily, levels of the stress hormone *cortisol* are noted to be lower in mothers who breastfeed rather than bottle-feed. As described earlier, when the infant suckles during breastfeeding, oxytocin is released into the mother's blood stream. This hormone not only helps to eject milk from the mammary ducts, but it has also been shown to make mothers feed more calm, accessible, and attached to their newborns.¹³ This increased responsiveness and attachment also has huge implications for the infant. Finally, oxytocin released during breastfeeding also helps to shrink the uterus after birth, limit postnatal bleeding, and aid in weight-loss after pregnancy.¹⁴

¹² Mauthner, Natasha S. *The darkest days of my life: Stories of postpartum depression*. p. 41.

¹³ Banks, Amy, Jessica Henderson Daniel, and Lauren Slater, eds. *The complete guide to mental health for women*. p. 24.

¹⁴ Jones, Richard Evan, and Kristin H. Lopez. *Human reproductive biology*. p. 342.

Physical Consequences for Infant

Due to the evidence supporting health benefits for infants, the American Academy of Pediatrics (AAP) released a statement in 2012 that recommended exclusive breastfeeding for at least six months after birth and supplemental breastfeeding used along with the introduction of solid foods for at least an additional year.¹⁵ As outlined, low-income mothers are less likely to breastfeed than women of other socioeconomic classes. One of the main issues surrounding this decision is the question: how does choosing bottle-feeding over breastfeeding affect the developing infant?

The benefits cited in favor of breastfeeding are innumerable, so attention will be given to those with greater significance. Though some are skeptical of the science supporting breastfeeding over bottle-feeding, the finding that breastfeeding reduces infections of the gastrointestinal (GI) tract is indisputable.¹⁶ In fact, a 74% reduction in GI tract infections in breastfed infants compared to bottle-fed infants has been cited to support this finding.¹⁷

Furthermore, due to the immunities passed from mother to child through breast milk, breastfed infants are less likely to get sick and have less severe sickness than bottle-fed infants.¹⁸ Also, breastfeeding lowers the incidence of lower respiratory infections (72%), allergies (27-42%), ear infections (23%), and has even been credited with decreasing the likelihood of Sudden Infant Death Syndrome (36%).¹⁹

Though there are obvious physical benefits for infants who are breastfed, diet, nutrition, and substance-abuse problems of breastfeeding mothers can have negative effects on infants.

¹⁵ Eidelman, A. I., Lawrence M. Gartner, and J. Morton. "American Academy of Pediatrics policy statement: breastfeeding and the use of human milk." *Pediatrics* 115.2 (2005): 496-506.

¹⁶ Wolf, Joan. *Is breast best?: taking on the breastfeeding experts and the new high stakes of motherhood*. New York: New York University Press, 2011. p. 16.

¹⁷ Anatolitou, Fani. "Human milk benefits and breastfeeding." *Journal of Pediatric and Neonatal Individualized Medicine (JPNIM)* 1.1 (2012): 13.

¹⁸ Baumslag, Naomi, and Dia L. Michels. *Milk, money, and madness*. p. 78.

¹⁹ Anatolitou, Fani. "Human milk benefits and breastfeeding." p. 13.

These negative physical effects must be weighed alongside the benefits. According to the physicians at the Mayo Clinic, a breastfeeding mother needs to consume an extra 400-500 calories a day to maintain her energy for feeding her infant. These calories should come from nutritious foods like whole grains, fruits, and vegetables. Mothers should also stay well hydrated, drinking at least 8 glasses of water per day.²⁰ When considering low-income mothers who make the decision to breastfeed, it is important to consider the financial barriers that prevent a healthy postnatal diet and how this might affect the infant. Though the Mayo Clinic stressed a diet rich in vitamins and whole grains, some contend that even mothers who are malnourished or consume a diet of junk food can provide quality milk to their infants—though they admit that having a good diet would be more beneficial for both the mother and child.²¹ In order to buffer against the barriers low-income women face to access a healthy diet while breastfeeding, programs like Women Infant and Children (WIC) provide larger benefit packages to women who choose to either partially or completely breastfeed. These food packages include fresh fruits and vegetables, whole wheat bread, cheese, eggs, milk, and other foods that are encouraged by the Mayo Clinic.²² Therefore, though the role of postpartum maternal diet in breast milk quality is debated, programs like WIC can help to offset potential nutritive deficiencies in infants that may arise from a low-income diet.

Furthermore, there are specific foods and substances that mothers should not consume in order to protect their infants from toxins and chemicals that can be transmitted by breastfeeding. For example, in 1994, the *Committee on Drugs* released an extensive list of drugs that should be

²⁰ Harms, Roger W. "Infant and Toddler Health; Breast-feeding nutrition: Tips for moms." *Mayoclinic.com*. Mayo Foundation for Medical Education and Research, 25 May 2012. Web. 12 March 2013. <<http://www.mayoclinic.com/health/breastfeeding-nutrition/MY02015>>.

²¹ Baumslag, Naomi, and Dia L. Michels. *Milk, money, and madness*. pp. 82-84.

²² "WIC Food Packages - Regulatory Requirements for WIC-Eligible Foods." *Fns.usda.gov*. United States Department of Agriculture. 17 Feb. 2012. Web. 26 June 2013. <<http://www.fns.usda.gov/wic/benefitsandservices/foodpkgallowances.HTM>>.

avoided by breastfeeding mothers due to their negative effects on infant health and behaviors. The list includes nicotine, which has been cited to increase the infant's heart rate, cause shock, vomiting, and diarrhea. The list also includes alcohol, because it has been found to cause stunted growth and weakness in infants. Other substances that mothers should avoid include cocaine, heroine, and caffeine.²³ Along with low-income diet, substance use among low-socioeconomic women must be considered when making the argument that breastfeeding will be more beneficial for infants. In 1996, a study of over 40,000 American households found that 4.6% of women receiving WIC abused alcohol and 6% had used drugs while receiving WIC.²⁴ From these statistics, we can infer that the overwhelming majority of low-income mothers eligible for WIC do not use illicit drugs that would be harmful to their infants if they chose to breastfeed. However, for mothers who smoke cigarettes, abuse alcohol, consume high levels of caffeine, or take illicit drugs, the decision to breastfeed should be carefully considered. Though moderate intake of these substances may actually have minute effects on breastfed infants, greater intake of these substances can decrease milk production and put the infant at risk of malnutrition.²⁵

Psychological Consequences for Infant

In addition to the more publicized benefits of breastfeeding for infant *health*, less obvious *psychological* benefits fuel the breast versus bottle controversy. Of the widely debated issues surrounding the dispute is the idea that breastfeeding helps in forming "secure attachments" between the infant and its mother. Secure attachments are the building blocks in psychological development that allow children to feel safe exploring the world around them and confront

²³ Kauffman, Ralph E., et al. "The transfer of drugs and other chemicals into human milk." *Pediatrics* 93.1 (1994): 138, 140.

²⁴ Grant, Bridget F., and Deborah A. Dawson. "Alcohol and drug use, abuse, and dependence among welfare recipients." *American Journal of Public Health* 86.10 (1996): 1451, 1452.

²⁵ Baumslag, Naomi, and Dia L. Michels. *Milk, money, and madness*. p. 98.

challenges knowing that protection and a nurturing base are present to lean on. As discussed previously, maternal mood and behavior are affected by the hormonal changes that occur while breastfeeding. Research has also suggested that breastfeeding has a calming and analgesic effect on infants. This is achieved through mechanisms like the release of the protein cholecystokinin, which decreases pain perception and lowers anxiety, when the fats in breast milk are digested. Furthermore, the skin contact with the mother during breastfeeding is noted to increase oxytocin levels and prevent infant stress. These physiological occurrences, along with increased contact with the mother, are suggested to increase secure attachments.²⁶ Other studies, however, suggest that it is not the breast milk itself, but a heightened sensitivity that breastfeeding mothers have to their infants needs during the period directly after birth, that provides the link between breastfeeding and early attachment formation.²⁷

Environmental issues present in “poverty environments” of both developed and developing countries, such as polluted drinking water, can make the decision to formula feed by low-income mothers even more detrimental to their infants.²⁸ Compared to adults, infants have higher caloric intake per body pound due to their increased metabolic rates. Infants usually consume six ounces of liquid per body pound every day. For a 150-pound adult, this would equate to drinking over 13 two-liter bottles of liquid daily. If an infant is bottle-fed, and the water used to mix the formula is polluted with lead or other toxins, this means that the infant would be placed at a high risk of pollutant exposure and poisoning.²⁹ In fact, according to a 1992 study of infant lead intoxication in Massachusetts, contaminated water in formula was the

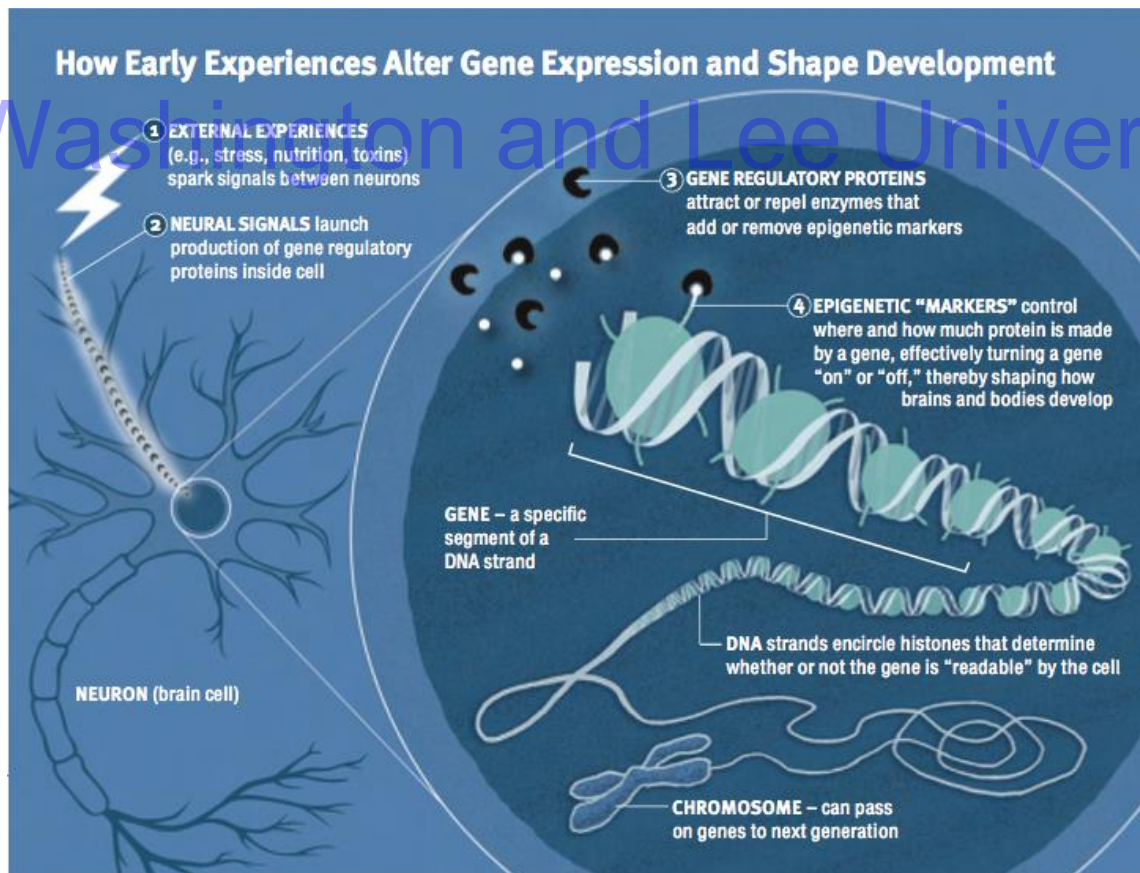
²⁶ Gribble, Karleen D. "Mental health, attachment and breastfeeding: implications for adopted children and their mothers." *International Breastfeeding Journal* 1.5 (2006): 2-3.

²⁷ Britton, John R., Helen L. Britton, and Virginia Gronwaldt. "Breastfeeding, sensitivity, and attachment." *Pediatrics* 118.5 (2006): e1436-e1443.

²⁸ Van Esterik, Penny. *Beyond the breast-bottle controversy*. New Brunswick: Rutgers University Press, 1989. pp. 17-18.

²⁹ Bearer, Cynthia F. "Environmental health hazards: how children are different from adults." *The Future of Children* (1995): 15.

third most common cause of infant lead poisoning.³⁰ Other than the obvious physical ramifications of poisoning, infants face serious developmental consequences to such toxin exposure. According to the *National Scientific Council on the Developing Child*, early experiences—such as exposure to toxins or receiving inadequate nutrition—can modify the expression of genes in children. This occurs through the modification of the infant or child’s epigenome, or the heritable chemical alterations to proteins and DNA that control gene expression and development. The *Council* argues that negative childhood experiences, like being exposed to toxins or chronic stress, can turn off expression of some genes that are vital to cognitive and social development in the same way that cancer can turn off expression of genes that inhibit uncontrollable cell multiplication and growth.



³⁰ Shannon, Michael W., and John W. Graef. "Lead intoxication in infancy." *Pediatrics* 89.1 (1992): 87-90.

Conversely, when young children have positive experiences, like rich learning environments, it can activate genes that can aid in cognitive and social development later in life. This helps to explain why identical twins, which have indistinguishable structural genomes, can have different skill sets and cognitive strengths.³¹ Therefore, positive experiences like forming secure attachments and having a more sensitive and attentive mother that decreases infant stress can activate genes that may increase future cognitive, social, and coping skills.

HOW DOES SOCIAL CLASS INFLUENCE THE DECISION TO BREASTFEED?

The Influence of Women, Infants, and Children (WIC)

In the literature pertaining to low breastfeeding rates among low-income women, it is rare to find a case in which the government funded Women, Infants, and Children (WIC) program is not blamed, in part, for this phenomenon. The WIC program encourages nutrition in low-income families by providing various packages that include vouchers for nutritious food for mothers and children. WIC also provides vouchers to new mothers to receive free formula to feed their infants. The federal government provides grants to states in order to maintain their own WIC programs. The states, in turn, make deals with formula manufacturers in which their formula is exclusively offered to WIC participants in return for providing discounts in the form of rebates to the state WIC agencies. In this way, the WIC agencies are able to provide vouchers for free formula to new mothers.³² These free vouchers contribute to the common belief that the WIC

³¹ National Scientific Council on the Developing Child (2010). *Early Experiences Can Alter Gene Expression and Affect Long-Term Development: Working Paper No. 10*. Retrieved from www.developingchild.harvard.edu.

³² Urban, Annie. "Is WIC shooting the CDC in the foot when it comes to breastfeeding rates?" *PhD in Parenting*. 6 April 2010. Web. 9 Jan. 2013. <<http://www.phdinparenting.com/blog/2010/4/6/is-wic-shooting-the-cdc-in-the-foot-when-it-comes-to-breastf.html>>.

program promotes formula feeding.³³ In fact, according to a study between 2000-2008 by the Centers for Disease Control (CDC), women who participate in WIC were less likely to initiate and maintain breastfeeding than women who do not participate in the program. The following figure represents the CDC's findings from 2000-2008.³⁴

Recipient of WIC?	Breastfeeding Duration		
	Initiation	6 months	12 months
Yes	66%	33%	17%
No (but eligible)	77%	50%	30%
No (not eligible)	82%	52%	26%

What is most startling about this figure is that women with incomes low enough to receive WIC but do not were 11% more likely to start breastfeeding, 17% more likely to be breastfeeding at 6 months, and were 13% more likely to be breastfeeding at 12 months than low income women who receive WIC.

Data such as these provoked the Interim Rule by the USDA in 2007, which became effective in 2009. This ruling sought to increase rates of breastfeeding among WIC participants by altering compositions of the various food packages, increase breastfeeding promotion, and providing support to participants who choose to breastfeed. The changes in food packages included decreasing the amount of formula vouchers available to mothers and their infants in the first month of life to only 104 ounces. By limiting the amount of formula available from birth, WIC seeks to promote initial breastfeeding success. Also, for mothers who choose to fully breastfeed, large food subsidies are provided to the mother as further incentive. Mothers who

³³ Baumslag, Naomi, and Dia L. Michels. *Milk, money, and madness: The culture and politics of breastfeeding*. Westport: Bergin & Garvey, 1995. p. 108.

³⁴ Scanlon, K. S., et al. "Racial and Ethnic Differences in Breastfeeding Initiation and Duration by State—National Immunization Survey, United States, 2004–2008." *Morbidity and Mortality Weekly* 59.11 (2010): 327-334.

partially breastfed are given smaller food packages for one year, and the formula vouchers are decreased as their infant ages to promote breastfeeding for longer periods of time. Mothers who choose to solely formula feed are given formula vouchers with a small, 6-month food package.³⁵

Federal regulations for WIC programs demand: “all pregnant participants shall be encouraged to breastfeed unless contraindicated for health reasons.”³⁶ However, the Interim Ruling of 2007 demanded that WIC participants be educated on breastfeeding and receive breastfeeding guidance throughout the entire prenatal and postpartum period.³⁷ Furthermore, WIC staff is supposed to encourage exclusive breastfeeding and ensure that formula vouchers do not influence participants’ decisions to breastfeed.³⁸ Despite these efforts, studies suggest that these changes may not be making the vast improvements anticipated by the USDA. In 2012, a paper published in *The American Journal of Clinical Nutrition* evaluated the changes that have occurred in food package receipt since the Interim Ruling when into place in 2009.

Food Package	Pre-implementation Percentage	Post-implementation Percentage
Full Breastfeeding	9.8%	17.1%
Partial Breastfeeding	24.7%	13.8%
Full Formula	20.5%	28.5%

The study demonstrated that while women choosing the full breastfeeding package increased by 7.3% since the changes in WIC were implemented, there was a greater increase in the percent of women choosing the full formula package, or 8%. Furthermore, the percentage of mother receiving the partial breastfeeding package decreased by almost 11%. These data suggest that while the Interim Ruling of 2007 changed women’s choice of food packages, the initiation

³⁵ Wilde, P., Wolf A., Fernandez M., and Ann Collins. “Evaluation of the Birth Month Breastfeeding Changes to the WIC Food Packages.” United States Department of Agriculture. 2011. p. 1.

³⁶ *Ibid.* p. 11.

³⁷ Wilde, P., Wolf A., Fernandez M., and Ann Collins. “Evaluation of the Birth Month Breastfeeding Changes to the WIC Food Packages.” p.11.

³⁸ *Ibid.* p.12.

of breastfeeding among WIC participants was not increased.³⁹ However, a Local Agency Report from the USDA suggested that between 2010 and 2011, the percentage of WIC infants who were breastfed rose by 1.5%, with .8% fully breastfed and .6% partially breastfed.⁴⁰ Though this increase may be encouraging for policymakers, it is doubtful that it closes the gap between breastfeeding rates between low-income WIC participants and non-WIC participants. Therefore, WIC may provide a disincentive for breastfeeding, by offering formula vouchers, among low-income women. While the WIC program may need further improvements, it cannot be solely blamed for the differences in breast-feeding rates among socioeconomic classes. Most low-income women who choose to formula feed feel as though their circumstances prevent them from breastfeeding.⁴¹

Situational Barriers of Breastfeeding for Low-Income Women

Low-income women face certain challenges in life that may act as barriers to making the decision to breastfeed their infants. Of these barriers, the most obvious is the fact that many of these women must work in order to support themselves and their families. Because breastfeeding is time consuming, many women feel as though they do not have the time to breastfeed or pump milk along with holding steady employment. Some mothers feel that returning to work deprives them of the choice to breastfeed their infants.⁴² In the words of a

³⁹ Wilde, Parke, Anne Wolf, Meena Fernandes, and Ann Collins. "Food-package assignments and breastfeeding initiation before and after a change in the Special Supplemental Nutrition Program for Women, Infants, and Children." *The American journal of clinical nutrition* 96.3 (2012): 560-566.

⁴⁰ USDA/FNS Supplemental Food Programs Division. "FY 2011 WIC Breastfeeding Data Local Agency Report." *Fns.usda.gov*. Oct. 2012. Web. 27 March 2013. p. 3. <<http://www.fns.usda.gov/wic/fundingandprogramdata/FY2011-BFdata-localagencyreport.pdf>>.

⁴¹ Guttman, Nurit, and Deena R. Zimmerman. "Low-income mothers' views on breastfeeding." *Social science & medicine* 50.10 (2000): 1466-1467.

⁴² Heinig, M. Jane, et al. "Barriers to compliance with infant-feeding recommendations among low-income women." *Journal of Human Lactation* 22.1 (2006): 31.

low-income mother, “it is easy for women to breastfeed if they are financially secure and don’t have to work.”⁴³

While many women do receive education about breastfeeding through programs like WIC and from their physicians, lack of education about breastfeeding contributes to the decision of many low-income mothers to formula feed.⁴⁴ In fact, some mothers report no perceived benefits of breastfeeding over formula feeding. One mother described how her obstetrician and family doctor insisted that formula feeding was “much easier” and that they did not seem to push breastfeeding over formula feeding.⁴⁵ This lack of education is connected with the fact that many low-income women choose to breastfeed because they fear their infant will not get full from breast milk. Without the support from physicians to ensure them that exclusively breastfeeding will be sufficient nutrition for their infants, many women fall victim to formula feeding or introducing solid foods early. This fear could even take the form of pressure from family members as one mother found: “My boyfriend...was worried about me not giving the baby enough, so he wanted me to give formula so he know how much [the baby] was taking.”⁴⁶ Therefore, education about the benefits of breastfeeding may also need to extend to the partners of new mothers.

Other mothers explain that the stress, crowding, and lack of privacy in their lives prevent them from breastfeeding.⁴⁷ One mother expressed her frustration with physicians, WIC staff, and others for pressuring her to breastfeed, saying,

⁴³ Guttman, Nurit, and Deena R. Zimmerman. "Low-income mothers' views on breastfeeding." p. 1467.

⁴⁴ Pellum, Rachel. “Breastfeeding Among Low-Income Women: Why are rates so low?” *NPs&PAs*. 11 Jan. 2011. Web. 27 March 2013. <<http://nurse-practitioners-and-physician-assistants.advanceweb.com/Features/Articles/Breastfeeding-Among-Low-Income-Women.aspx>>.

⁴⁵ Guttman, Nurit, and Deena R. Zimmerman. "Low-income mothers' views on breastfeeding." p. 1469.

⁴⁶ Heinig, M. Jane, et al. "Barriers to compliance with infant-feeding recommendations among low-income women." p. 33.

⁴⁷ Guttman, Nurit, and Deena R. Zimmerman. "Low-income mothers' views on breastfeeding." p. 1467.

They don't see what [I'm] going through. It would take [my daughter] half an hour to get on, and then 2 minutes to get off [my breast]. They are not there to see that, so they are not there to say 'You can do it' and 'Keep trying.' It's, like, 'You try it!'⁴⁸

While many higher-income women have social support systems to help increase their likelihood to continue breastfeeding in the face of difficulties, many low-income women lack these support systems. In fact, many women who choose to formula feed note that those who help them with caretaking responsibilities often discourage them to breastfeed so that the infant is more easily cared for.⁴⁹ Along with situational barriers to breastfeed, many low-income women lack the education and knowledge to have positive outlooks on breastfeeding. These negative attitudes commonly affect their decision to breastfeed.

Attitudes of Low-SES Women Toward Breastfeeding

In a 2000 study by Guttman and Zimmerman, while 72.4% of low-income mothers who formula feed believed that breastfeeding provides "a lot" of benefits for infants and 56.4% believed that breastfeeding prevents the infant from illness, many barriers prevent them from breastfeeding.⁵⁰ One mother explained that finishing school prevented her from breastfeeding, "if I could, I would, but it seems impossible."⁵¹ The study also found that low-income mother who choose to formula feed are more likely than those who breastfeed to believe that learning to breastfeed is difficult and that breastfeeding ties the mother down.⁵² In a sample of WIC participants who choose to breastfeed, many share this belief that breastfeeding is inconvenient. Other popular attitudes include the fear of embarrassment, worries of how others will be able to help them if they had chosen to breastfeed, fear of inadequate breast milk, and fear of breast

⁴⁸ Heinig, M. Jane, et al. "Barriers to compliance with infant-feeding recommendations among low-income women." p. 35.

⁴⁹ Guttman, Nurit, and Deena R. Zimmerman. "Low-income mothers' views on breastfeeding." p. 1467.

⁵⁰ *Ibid.* p. 1462.

⁵¹ *Ibid.* p. 1466.

⁵² *Ibid.* p. 1463.

pain.⁵³ Furthermore, the study found that black mothers, who had the lowest breastfeeding rates in the CDC data, were most likely to agree with statements about barriers to breastfeeding. These included feeling like breastfeeding was time consuming or painful. Hispanic mothers, on the other hand, were most likely to agree with statements regarding the benefits of breastfeeding. These included breastfeeding leads to healthier infants and breastfeeding brings a mother closer to her child.⁵⁴ This study highlights the importance of attitude in breastfeeding—especially when the previous graphs reflecting higher rates of breastfeeding among Hispanic women and lower breastfeeding rates among black women are considered.

Interviews with low-income teen mothers regarding their attitudes pertaining to breastfeeding provide an interesting insight as to why this group of mothers may choose not to breastfeed. Some teenage girls, already struggling with their body images, are too self-conscious of their bodies to breastfeed their children, especially in public. One mother argued, “Everyone’s gonna look at you and that’s one thing I can’t stand is for someone to sit and look at me.”⁵⁵ Along with body consciousness, many young girls see the female breasts as sexual objects rather than feeding instruments. As one teen mother put it, “People think it’s perverted...when you let a child suck on your breast.”⁵⁶ While not all teen mothers share this position, many feel pressured by their sexual partners not to breastfeed. One mother shared this with Judith Musick.

⁵³ McCann, Margaret F., Nazli Baydar, and Rick L. Williams. "Breastfeeding attitudes and reported problems in a national sample of WIC participants." *Journal of Human Lactation* 23.4 (2007): 322-323.

⁵⁴ *Ibid.* p. 317.

⁵⁵ Musick, Judith S. "The special role of parenting in the context of poverty: The case of adolescent motherhood." *Threats to optimal development. Vol. 27: Integrating biological, psychological and social risk factors* (1994): 195.

⁵⁶ *Ibid.* p. 196.

My fiancée don't want me to breast-feed...he don't think that [my breasts] belong to the baby, they belong to him...He thinks they're for a sexual thing (more) than it is as far as a health thing.⁵⁷

These interviews, combined with the studies above, reflect the importance of attitude in making the decision to breastfeed. While the low breastfeeding rates among low-income women are understandable after consideration of the influence of WIC, negative attitudes, situational barriers, educational barriers, and negative attitudes that limit the opportunity of women to choose to breastfeed their infants, being able to comprehend the trend does not mean that we can ignore the implications of this decision.

MORAL ARGUMENTS FOR INCREASING BREAST-FEEDING RATES AMONG LOW-SES WOMEN

With the knowledge that low-SES women breastfeed at lower rates than women of other socioeconomic statuses and the knowledge that breastfeeding can provide physical and psychological benefits to both infants and mothers, do we have a moral responsibility to help attenuate this dichotomy between low income and breastfeeding? First, we must consider what is owed to the infant. Norman Daniels suggests that, "we protect equal opportunity best by reducing and equalizing the risk of [illnesses] arising."⁵⁸ We know that breastfeeding can provide infants with immune protection that can decrease their likelihood of illnesses, so one could potentially argue that a mother choosing to formula feed may compromise the infant's equal opportunity when compared to infants who are breastfed and protected from various ailments. Furthermore, if formula feeding causes the infant to get sick at a disproportionate rate

⁵⁷ Musick, Judith S. "The special role of parenting in the context of poverty: The case of adolescent motherhood." p. 196.

⁵⁸ Daniels, Norman. *Just health: meeting health needs fairly*. Cambridge: Cambridge University Press, 2008.

than other infants or puts them at increased risk of environmental toxins like lead, this could lead to poor developmental outcomes. In this way, a mother may decrease the future capabilities of her infant by making this choice. If a mother refused to vaccinate her child for measles and polio, she might lose custody under state law. By choosing not to breastfeed, a mother places her child at a greater risk of GI infections and other illnesses. Should there be no repercussions for denying her child protection from these illnesses? Should there be laws that mandate breastfeeding for those who are physically and psychologically able?

Rosalind Ladd and Mark Mercurio provide an excellent explanation for why we should separate these two hypothetical decisions. In their paper, “Deciding for Neonates: Whose Authority, Whose Interests?”, they argue that “parents are not required to choose what will be in the very best interest of their child, but only to avoid what would be a clear violation of the child’s best interest.”⁵⁹ Returning to the hypothetical examples, vaccinating children is in the child’s very best interest, and choosing not to vaccinate one’s child would be clearly violating what is best for the child. Choosing to breastfeed may be highly beneficial to the infant, but choosing to bottle-feed will still provide the child with sufficient nutrition. Therefore, this does not *clearly* violate the child’s basic health and needs, so the decision to breastfeed should not be forced upon women. Every woman should have the freedom to make choices regarding her health and body, and when attempting to increase breastfeeding rates among low-income women, their autonomy must be respected.⁶⁰

⁵⁹ Ladd, Rosalind Ekman, and Mark R. Mercurio. "Deciding for neonates: whose authority, whose interests?." *Seminars in perinatology*. Vol. 27. No. 6. WB Saunders, 2003. pp. 490-491.

⁶⁰ Daniels, Norman. *Just health: meeting health needs fairly*. *Norman Daniels suggests that any health sector reform should be evaluated under certain “Benchmarks of Fairness.” Included in these benchmarks is the requirement that there be patient autonomy—or the freedom of patients to make choices regarding their health and bodies.

Having confirmed that a woman's autonomy over this decision should be respected, what if her decision harms her infant? New mothers make the decision not to breastfeed every day—which some may argue deprives their infants of both physical and psychological benefits. Jennifer Torres and Raymod De Vries suggest that the decision not to breastfeed may be due to “misinformation and structural barriers.” They suggest that we are ethically obligated to provide women with the information needed to make educated decisions regarding breastfeeding. In this way, the autonomy of the mother is respected but her choices are made with a heightened awareness of the costs and benefits of breastfeeding.⁶¹ However, as discussed previously, even after receiving education regarding the benefits of breastfeeding, many low-income women make the decision not to breastfeed due to various attitudes and circumstances that are unique to their situations. In order to alter the negative attitudes and perceptions of low-income women toward breastfeeding, having physicians or WIC staff who cajole them and provide actual emotional support before and after their infants are born could empower the low-income women and increase their likelihood to breastfeed. This practice of cajoling can actually have huge consequences. In a study by Jeanne Raisler, low-income mothers who chose to breastfeed often cited that the support and praise they received from the nurses, physicians, midwives, and WIC staff allowed them to make the informed decision to breastfeed.⁶² A 32-year old mother who chose to exclusively breastfeed her child noted:

When I said I was going to breastfeed, they would say: “Oh, that’s wonderful!” They went on and on...they were really happy about it, *they made me feel special*. They

⁶¹ Torres, Jennifer M., and Raymond G. De Vries. "Birthing ethics: What mothers, families, childbirth educators, nurses, and physicians should know about the ethics of childbirth." *The Journal of perinatal education* 18.1 (2009): 17-18.

⁶² Raisler, Jeanne. "Against the odds: Breastfeeding experiences of low income mothers." *Journal of Midwifery & Women's Health* 45.3 (2000): 254.

seemed like they were genuinely happy, instead of just: “Are you going to breastfeed or bottlefeed?” and then write it down...⁶³

Without forcing low-SES mothers to breastfeed, what can we do to increase breastfeeding rates outside of cajoling and increasing the capability of mothers to make informed decisions about breastfeeding? Inequalities in health may often stem from situations that originate far beyond the hospital or doctor’s office. They may be due to the unequal distribution of the socially controllable factors.⁶⁴ In the case of breastfeeding, access to proper postnatal diets, education regarding the benefits of breastfeeding, and counseling and support for breastfeeding by a primary care physician are all socially controllable factors that are unequally distributed to those who can afford healthy foods, higher education, health insurance. Therefore, in order to reduce the inequality in breastfeeding between socioeconomic classes, we must start by equalizing these socially controllable factors. In addition to equalizing socially controllable factors to support breastfeeding, we should provide all women with equal capability to breastfeed.⁶⁵ Even if women are given proper postnatal diets, access to education and information about breastfeeding, and support from physicians, they still may lack the positive freedom to breastfeed.⁶⁶ Though the women may have all the resources available to breastfeed, they may not have the financial stability to be able to remain at home with their infant long enough to properly initiate breastfeeding. They may also not have the ability to take breaks at work in order to pump breast milk without risking losing their job.

⁶³ *Ibid.* p. 255.

⁶⁴ Daniels, Norman. *Just health: meeting health needs fairly.* p. 101. *Norman Daniels argues that we have a special moral obligation to reduce unjust health inequalities, and that these inequalities are unjust “when [they result] from an unjust distribution of the socially controllable factors affecting population health.”

⁶⁵ Sen, Amartya. *Inequality Reexamined.* Cambridge: Harvard University Press, 1992.

⁶⁶ Sen, Amartya Kumar. *Freedom of choice: concept and content.* World Institute for Development Economics Research, 1987.

When considering the low breastfeeding rates among low-SES women, it is not the fact that some choose not to breastfeed that gives us an ethical obligation to increase their breastfeeding rates. Rather, it is the fact that these women breastfeed at a lower rate than women of other socioeconomic classes that is concerning. Breastfeeding should not be luxury that only middle-class and wealthy women can access. Therefore, we have a moral obligation to reduce health inequalities—like those that may exist due to lack of resources to breastfeed one’s infant—but we are required to respect the autonomy of women to make the decision to breastfeed. Focus should be shifted to providing sufficient education to low-income mothers and praising these women when they make their own, informed decision to breastfeed. Physicians, nurses, midwives, and WIC staff should especially act as the cheerleaders for these new mothers to increase their self-esteem and help them form positive attitudes about breastfeeding.

Furthermore, because many low-income women who support breastfeeding feel as though their stressful living situations and work schedules force them to formula-feed,⁶⁷ we also have an obligation to provide mothers with the capability—not just the resources—to breastfeed.

POLICY IMPLICATIONS

I. Policy for Working Mothers

In order to make breastfeeding a viable option for working, low-income mothers, we must do more than simply encourage the women and provide them with breast-pumps. The *Institute for Women’s Policy Research* suggests that one of the main reasons for low breastfeeding rates in the United States, compared to other nations, is that many women in the United States are employed. In the case of low-income women, working may be a necessity for survival or a requirement for other programs like Temporary Assistance to Needy Families. Due to the fact

⁶⁷ Guttman, Nurit, and Deena R. Zimmerman. "Low-income mothers' views on breastfeeding." p. 1467.

that the United States does not provide paid maternity leave to new mothers, many women stop breastfeeding or never initiate breastfeeding because they lack the time to nurse with their work demands.⁶⁸ The jobs low-income mothers hold are often low-wage, hourly jobs with high turnover rates. This means that taking frequent breaks to pump milk could jeopardize their employment.⁶⁹ Therefore, many women feel as though they do not have the freedom to breastfeed their infants. Existing policy is working to provide women with the opportunity to initiate and maintain breastfeeding, but many of these policies do not help the low-income women who need them the most.

For example, the Family Medical Leave Act (FMLA) of 1993 mandates that employers with over 50 employees are required to give workers who completed at least 1250 hours of work in the previous year up to 12 weeks of job-protected leave for family-related purposes. One of the cited purposes is maternity leave after the birth of a child⁷⁰—which may provide a mother enough time to initiate breastfeeding and become comfortable using a breast-pump. This job-protected leave, however, is unpaid. Furthermore, less than half of working families are eligible for the benefits, due to the requirements of the FMLA, and many low-income women cannot risk losing 12 weeks of income in order to stay home with their infants.⁷¹ With Canada providing a full year of paid leave for new mothers, and the United Kingdom providing 9 months of paid maternity leave, it is reasonable that the United States should be inspired by its other developed nations and adopt similar policy.⁷² By receiving paid leave, many low-income women would feel like they are able to enjoy the same luxuries as higher-income women do who choose to

⁶⁸ Drago, Robert, Jeffrey Hayes, and Youngmin Yi. "Better health for mothers and children: Breastfeeding accommodations under the Affordable Care Act." p. 3.

⁶⁹ *Ibid.* p. 5.

⁷⁰ Waldfogel, Jane. "The impact of the family and medical leave act." *Journal of Policy Analysis and Management* 18.2 (1999): 282.

⁷¹ Waldfogel, Jane. "The role of family policies in antipoverty policy." *Focus* 26.2 (2009): 50.

⁷² *Ibid.* p. 51.

leave work to bond with their newborns. In the words of one low-income mother who chose not to breastfeed because of job-related issues, “[a breastfeeding mother is] one of those perfect, stay-at-home moms who doesn’t have to work.”⁷³ Some states already have methods to provide new mothers with paid leave. For example, in New York, mothers can apply for temporary disability after pregnancy and receive a small reimbursement for missed wages. Though providing national paid maternity leave may seem costly, if executed properly, it may actually have positive economic consequences.⁷⁴ This is the opinion of Jody Heymann, dean of the Fielding School of Public Health at the University of California, Los Angeles.

As well as receiving more one-on-one care, infants are more likely to be breast-fed, which lowers illness and hospitalization rates for infants and benefits women’s health. Beyond the marked health advantages, paid maternity leave yields economic gains in terms of reduced health care costs, reduced recruitment and retraining and improved long-term earnings for women.⁷⁵

A government mandated, paid maternity leave would decrease the necessity of mothers like this to return to work quickly after giving birth. It could also provide enough financial stability and time for low-income women to feel as though they have the freedom to initiate breastfeeding.

Though the United States is far behind other developed nations in supporting families with new infants,⁷⁶ the Patient Protection and Affordable Care Act (ACA) is attempting to close some of these gaps.⁷⁷ In Title IV, Subtitle C, Section 4207 of the ACA, the Fair Labor Standards Act of 1938 was amended to provide “Reasonable Break Time for Nursing Mothers.”⁷⁸ This

⁷³ Guttman, Nurit, and Deena R. Zimmerman. "Low-income mothers' views on breastfeeding." p. 1467.

⁷⁴ Bernard, Tara. “In Paid Family Leave, U.S. Trails Most of the Globe.” *Nytimes.com*. 22 Feb. 2013. Web. 1 Apr. 2013. <http://www.nytimes.com/2013/02/23/your-money/us-trails-much-of-the-world-in-providing-paid-family-leave.html?pagewanted=all&_r=0>.

⁷⁵ Bernard, Tara. “In Paid Family Leave, U.S. Trails Most of the Globe.”

⁷⁶ Waldfoegel, Jane. "The role of family policies in antipoverty policy." p. 50.

⁷⁷ Drago, Robert, Jeffrey Hayes, and Youngmin Yi. "Better health for mothers and children: Breastfeeding accommodations under the Affordable Care Act." p. 5.

⁷⁸ Brossman, Edward G., Craig A. Sterkx, Elonda C. Blount, & Emily M., Volberding. "Compilation of Patient Protection and Affordable Care Act." *Office of Legislative Counsel. 111 Congress, 2d Session* (2010):503.

mandates that all employers with over 50 employees must provide unpaid breaks for mothers who need to pump breast milk up to a year after the birth of her child. These breaks must be provided whenever the mother feels the need to expel her milk, and a private place, other than a bathroom, must be provided for breast pumping or nursing.⁷⁹ The *Institute for Women's Policy Research* believes that this will increase the six-month breastfeeding percentages in the United States from 44.5% to 47.5%. This would mean that 165,000 new mothers will breastfeed their infants to six months of age each year due to the ACA amendments.⁸⁰ However, similar to the FMLA regulation of benefits only being required from employers with over 50 employees, many low-income women may not be eligible for these benefits from their employer. Therefore, a more general mandate may be needed to have larger effects on breastfeeding percentages among low-income women.

In order to provide low-income women with the opportunities to breastfeed, the United States should consider policy changes that would allow these new mothers to spend more time with their newborns. This increased time may enable the women to initiate breastfeeding and become comfortable using a breast pump. These policy changes include paid maternity leave for new mothers as well as extending the ACA amendments regarding breaks for nursing mothers to all employers. However, as discussed previously, work is not the only barrier to breastfeeding among low-income women.

⁷⁹ Brossman, Edward G., Craig A. Sterkx, Elonda C. Blount, & Emily M., Volberding. "Compilation of Patient Protection and Affordable Care Act." p. 503.

⁸⁰ Drago, Robert, Jeffrey Hayes, and Youngmin Yi. "Better health for mothers and children: Breastfeeding accommodations under the Affordable Care Act." p. 12.

II. Changing WIC

Though the Interim Ruling of 2007 was designed to increase breastfeeding rates among WIC participants, the changes have resulted in very little change in breastfeeding initiation.⁸¹ Some insist that WIC program does not provide consistent support and promotions between states, and this may be the reason for the low breastfeeding rates among WIC participants.⁸² This was also found in the interviews of Jeanne Raisler with various WIC participants in 2000. In her study, seven participants felt as though WIC staff promoted breastfeeding more than formula, five participants felt like formula was encouraged over breastfeeding, and four participants felt as though the WIC staff supported either decision.⁸³ Obviously, these women were receiving mixed messages from the WIC program—which directly contradicts the federal regulations for the WIC program.⁸⁴ These messages from WIC staff can lead many women to formula feed more than they would otherwise, especially with the subsidized formula. As one woman in Raisler’s study noted, “If I didn’t have WIC, I would still use some formula...But I would probably breastfeed more.”⁸⁵ Another mother reflected, “Because of WIC, it’s much easier for people to get formula. They look at it like: ‘all this free milk, why should I breastfeed?’”⁸⁶ When asked how WIC could improve breastfeeding rates, some mothers identified the need for increased breastfeeding classes. Others suggested that WIC mothers should be required to

⁸¹ Wilde, Parke, Anne Wolf, Meena Fernandes, and Ann Collins. "Food-package assignments and breastfeeding initiation before and after a change in the Special Supplemental Nutrition Program for Women, Infants, and Children." *The American journal of clinical nutrition* 96.3 (2012): 560-566.

⁸² Urban, Annie. "Is WIC shooting the CDC in the foot when it comes to breastfeeding rates?" *PhD in Parenting*. 6 April 2010. Web. 9 Jan. 2013. <<http://www.phdinparenting.com/blog/2010/4/6/is-wic-shooting-the-cdc-in-the-foot-when-it-comes-to-breastf.html>>.

⁸³ Raisler, Jeanne. "Against the odds: Breastfeeding experiences of low income mothers." *Journal of Midwifery & Women's Health* 45.3 (2000): 257.

⁸⁴ Wilde, P., Wolf A., Fernandez M., and Ann Collins. "Evaluation of the Birth Month Breastfeeding Changes to the WIC Food Packages." p. 11.

*As noted previously, 7 *Code of Federal Regulations* 246.11 mandates that "all pregnant participants [of WIC] shall be encouraged to breastfeed unless contraindicated for health reasons"

⁸⁵ Raisler, Jeanne. "Against the odds: Breastfeeding experiences of low income mothers." p. 257.

⁸⁶ *Ibid.* p. 257.

attempt breastfeeding before they were given formula vouchers.⁸⁷ While the second suggestion must be discounted because it would violate the autonomy of mothers, these quotations with WIC participants reflect the necessity for WIC to have a universal increase in efforts to promote breastfeeding by providing more education to participants.

Other than increasing breastfeeding promotion and education, some suggest that WIC does not properly advertise the availability of breast pumps to low-income mothers who need to return to work.⁸⁸ In a study of WIC participants in 2007, McCann *et al.* found that 73% of WIC participants who chose not to breastfeed believed that breast pumps were difficult to use, while over 50% of the WIC participants who chose to breastfeed disagree and think that breast pumps are easy to use.⁸⁹ Therefore, along with increasing the availability of breast pumps, WIC staff should focus on informing participants on how to use the pumps properly. If more mothers knew they could obtain breast pumps through WIC and believed that breast pumps were easy to use, they may feel as though they have an increased ability to breastfeed. Especially when mothers believe that they must return to work soon after the infant's birth, having access to a breast pump would allow them an opportunity to provide breast milk to their infants even if they cannot directly nurse them.⁹⁰

Despite its flaws, the nutrition and support received by many women, infants, and children make WIC an indispensable program for the United States. While the Interim Ruling may not have provided drastic increases in breastfeeding initiation rates, it has increased the

⁸⁷ *Ibid.* p. 257.

⁸⁸ Urban, Annie. "Is WIC shooting the CDC in the foot when it comes to breastfeeding rates?" *PhD in Parenting*. 6 April 2010. Web. 9 Jan. 2013. <<http://www.phdinparenting.com/blog/2010/4/6/is-wic-shooting-the-cdc-in-the-foot-when-it-comes-to-breastf.html>>.

⁸⁹ McCann, Margaret F., Nazli Baydar, and Rick L. Williams. "Breastfeeding attitudes and reported problems in a national sample of WIC participants." *Journal of Human Lactation* 23.4 (2007): 317.

⁹⁰ Raisler, Jeanne. "Against the odds: Breastfeeding experiences of low income mothers." p. 260.

number of mothers who choose to fully breastfeed⁹¹—which is very promising for the future. Therefore, it is of vital importance that the U.S. government maintains funding to the WIC program. Though WIC has faced threats of budget cuts in 2013,⁹² Congress seemed to ultimately agree with the importance of WIC. The Continuing Appropriations Act of 2013 allocated \$6.869 billion to the WIC program for 2013—preventing WIC from having to cut participants of the program.⁹³ However, if WIC does increase promotion for breastfeeding and moves its participants away from utilizing formula vouchers, some project that it could save the United States \$500 million a year in formula costs.⁹⁴ This could allow more mothers to enter the WIC program to receive food packages that would help them stay healthy while breastfeeding.

III. Methods of Support

The role of continuous support should not be discounted when creating policy to increase breastfeeding rates among low-income mothers. This responsibility should be shared among WIC staff, nurses, and physicians. As Jeanne Raisler found in 2000, many mothers make the decision to breastfeed because they feel as though their physicians and nurses really cared about them. One mother, overwhelmed by the papers and pamphlets about breastfeeding, admitted that it was her doctor's support that convinced her to breastfeed:

But the doctor was there, he asked: “Are you gonna breastfeed? Tell me what you're gonna do.” And he gave me a thick book stapled together that listed...the advantages and disadvantages, and I asked questions. I called him back, because he took the time to

⁹¹ See data in “*The Influence of Women, Infants, and Children (WIC)*” section by Wilde, et al. 2012.

⁹² Weisman, Jonathan & Annie Lowrey. “Finance Bill, Nearing Senate Passage, Would Protect Some Favored Programs.” *The New York Times*. 19 March 2013. Web. 30 March 2013. <http://www.nytimes.com/2013/03/20/us/politics/senators-plan-would-spare-vital-programs-from-federal-cuts.html?pagewanted=1&_r=0&emc=eta1>.

⁹³ National WIC Association. “Continuing Approp Act of 2013 Passes Senate & House: WIC Likely to Avoid Cutting Participants.” 21 March 2013. Web. 30 March 2013. <<http://www.nwica.org/?q=advocacy/d14/d65>>.

⁹⁴ Baumslag, Naomi, and Dia L. Michels. *Milk, money, and madness: The culture and politics of breastfeeding*. p. 179.

talk. And he gave me his pager number and his nurse pager number so I could always reach him, no matter what.⁹⁵

Other mothers did not feel this support from their doctors, and it made them question their decision to breastfeed:

...if I had listened to my family doctor, I wouldn't be breastfeeding right now. And the doctor that you choose really has to know about what you want, and they have to know about breastfeeding. They have to know what you can do and what you can't do...⁹⁶

These quotations show the power that a primary care physician can have on the decision to breastfeed by low-income women. If the doctor takes the time to counsel and cajole the woman, as in the first testimony, it can make a huge difference on her attitude. If the doctor does not take the time to educate his patients on the benefits of breastfeeding, as in the second quotation, a woman may lose confidence in her abilities to breastfeed or not fully comprehend the advantages for herself and her infant. Those involved in primary care medicine must also be highly educated on the subject of breastfeeding in order to support and answer questions for new mothers. The last testimony attests to the fact that more may need to be done to educate primary care physicians and nurses on the benefits and techniques associated with successful breastfeeding.

Furthermore, Jeanne Raisler also found that low-income women responded well to the encouragement of nurses and "breastfeeding peer counselors," and that these women supported new mothers during times when breastfeeding was most difficult.⁹⁷ One mother suggested that the education and attention given to her at the hospital was what helped her choose to breastfeed:

⁹⁵ Raisler, Jeanne. "Against the odds: Breastfeeding experiences of low income mothers." p. 255.

⁹⁶ Raisler, Jeanne. "Against the odds: Breastfeeding experiences of low income mothers." p. 257.

⁹⁷ *Ibid.* p. 253.

The nurses I had were wonderful. They helped a lot, because he was a little monster and didn't want to latch on... They would sit with me for hours, and helped me to get him to latch on, and as soon as he let go they'd help me to get him back on, and different positions to hold him in, and they were excellent.⁹⁸

Other mothers cited the emotional support given to them by breastfeeding peer counselors, or women who would make home visits to assist them when they had difficulties, as their reason for maintaining breastfeeding:

...without [the breastfeeding peer counselor's] help, I probably would have given up [when my baby developed cholic]. But she would come once a month or so, maybe more often than I needed her. And I think just knowing that she was there, to give me support, and she would just say: "You're doing fine, you're doing fine" when I was thinking that I was doing something wrong. And I really looked forward to just having

her come over.⁹⁹

The importance of support, whether in the physician's office, in the hospital after delivery,

or in the home during the first few weeks of breastfeeding is paramount to some low-income women. These women make the decision to breastfeed because they feel as though someone truly cares about their decision. Therefore, primary care physicians and nurses need to be more responsive to their pregnant patients, more educated on the benefits and methods of breastfeeding, and take the time to help them make breastfeeding a successful endeavor. The WIC program should consider forming breastfeeding support groups where participants who choose to breastfeed can have peer counselors to check in on them and show prolonged support throughout the breastfeeding period. Furthermore, the United States should consider adopting programs like the "Nurse-Family Partnership" developed by David L. Olds in 1977 for women

⁹⁸ *Ibid.* p. 256.

⁹⁹ Raisler, Jeanne. "Against the odds: Breastfeeding experiences of low income mothers." p. 258.

who are least likely to initiate breastfeeding.¹⁰⁰ This program was enacted in low-income areas of Elmira, Memphis, and Denver, and included an average of thirty 75-90 minute nurse visits during and after pregnancy.¹⁰¹ These nurse visits promoted increased breastfeeding rates among low-income women compared to women in the control group who did not receive nurse visits.¹⁰² By the age of six, the children of these mothers had fewer behavioral problems and “higher intellectual functioning” than children whose mothers were not visited by nurses.¹⁰³ Therefore, nurse visitations can encourage mothers to breastfeed and give their children greater opportunities for the future.

CONCLUSION

Data from the Centers for Disease Control and Prevention and National Center for Health Statistics show that low-income women breastfeed at lower rates than women of other socioeconomic statuses. Though these statistics may seem ironic, due to low-income women utilizing a costly feeding method rather than free breast milk, many circumstantial barriers prevent low-income women from feeling as though they have the freedom to choose breastfeeding. With the plethora of literature citing greater physical and psychological health for both mother and infant when breastfeeding is chosen over formula feeding, we have a moral obligation to help women make educated choices about feeding their infants and to supply these women with the materials and positive freedom to breastfeed if they choose. It is of crucial importance that the United States introduces policy that will close the gap between breastfeeding

¹⁰⁰ Berlin, Lisa J., Yair Ziv, Lisa Amaya-Jackson, and Mark T. Greenberg, eds. *Enhancing early attachments: Theory, research, intervention, and policy*. New York: Guilford Press, 2005. p. 217.

¹⁰¹ Berlin, Lisa J., Yair Ziv, Lisa Amaya-Jackson, and Mark T. Greenberg, eds. *Enhancing early attachments: Theory, research, intervention, and policy*. p. 228.

¹⁰² *Ibid.* p. 232.

¹⁰³ *Ibid.* p. 239. *It is likely that these benefits may have been indirect effects of the social support shown to the mother by the nurse. Having a constant form of support may have increased the self-esteem and parenting skills of these mothers, allowing them to have greater influences in the lives of their children's education and discipline than they would otherwise have taken without the nurse visits.

rates of low-SES and higher-SES women. By providing reasonable amounts of paid maternity leave, equal opportunity to pump breast milk at work, better education and access to breast pumps through WIC, and educational and emotional support from physicians, nurses, and WIC staff, low-income women will make the decision to breastfeed more.

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