

HHS Public Access

Author manuscript *Birth.* Author manuscript; available in PMC 2022 July 15.

Published in final edited form as: *Birth.* 2018 June ; 45(2): 178–183. doi:10.1111/birt.12323.

Changes in mothers' intended duration of breastfeeding from the prenatal to neonatal periods

Jennifer M. Nelson, MD, MPH^{1,2}, Ruowei Li, MD, PhD², Cria G. Perrine, PhD², Kelley S. Scanlon, PhD, RD²

¹Epidemic Intelligence Service, Division of Scientific Education and Professional Development, Centers for Disease Control and Prevention, Atlanta, GA

²Division of Nutrition, Physical Activity, and Obesity, Centers for Disease Control and Prevention, Atlanta, GA

Abstract

Background: Although previous studies suggest that the intentions of mothers to breastfeed during pregnancy strongly predict actual breastfeeding practice, no studies have examined the changes in the intentions of mothers to breastfeed from the prenatal to neonatal periods. The purpose of this study was to examine changes in intended breastfeeding duration from the prenatal to neonatal periods, their association with actual duration, and predictors for shortened duration.

Methods: The Infant Feeding Practices Study II was a longitudinal study of mothers in the United States. Changes to intended breastfeeding duration were calculated as the difference from prenatal to neonatal reports (months); we compared this change to actual breastfeeding duration. By using multivariable logistic regression, we identified maternal characteristics associated with a shortened breastfeeding intention.

Results: Of 1,780 women, 43.7% had no change to intended breastfeeding duration, 35.0% had a shorter intended duration, and 21.3% had a longer intended duration. Mothers with shortened intended duration also had shorter actual duration (P<.001). Women of Hispanic ethnicity, with a prepregnancy body mass index of 30 kg/m², who were primiparous, and who smoked prenatally, had increased odds of shortening their breastfeeding intention from prenatal to neonatal reports. A maternal age of 35 years was associated with decreased odds of shortened breastfeeding intention.

Discussion: Approximately one in three women shorten their intended breastfeeding duration during the early postpartum period, which negatively affects the actual duration of their breastfeeding. Women may need additional support during the early postpartum period to meet their prenatal breastfeeding intentions.

Keywords

breastfeeding intention; breastfeeding duration

Address correspondence to: Jennifer M. Nelson, Division of Nutrition, Physical Activity, and Obesity (DNPAO), Centers for Disease Control and Prevention (CDC), 4770 Buford Hwy NE, Mailstop F-77, Atlanta, GA 30341, jmnelson@cdc.gov.

Introduction

More than half of women decide how long they intend to breastfeed their infant during the prenatal period.^{1, 2} There are several factors that contribute to a woman's breastfeeding plans, including her knowledge and attitudes towards breastfeeding,³ employment status,^{4, 5} social support,⁶ parity,⁵ maternal confidence,^{2, 5} and her comfort with breastfeeding.⁷ A mother's intention to breastfeed is a strong predictor of her actual breastfeeding practices^{8, 9} because women who prenatally intend to breastfeed are more likely to initiate and continue breastfeeding.^{1, 10} Despite these plans, many mothers do not achieve their prenatal breastfeeding intentions^{1, 9, 11–13} and do not breastfeed for as long as they want.¹⁴

A national study among mothers in the United States (US) who had given birth to singletons between 2011–2012 has shown that most women (81%) intend to breastfeed, either exclusively or in combination with formula, at the end of their pregnancy; however, only 76% were breastfeeding at 1 week after birth,¹⁵ suggesting mothers may be changing their breastfeeding intentions between the prenatal and neonatal periods. However, no studies are available, so far, that specifically address changes to prenatal breastfeeding intentions, or how such changes may affect actual breastfeeding duration, or the factors associated with the changes of maternal breastfeeding intention. Thus, the purpose of this study is to understand mothers' changes to their intended breastfeeding durations from the prenatal to neonatal periods. In addition, we examined how these changes were associated with actual breastfeeding durations and identified maternal characteristics associated with shortening intentions.

Methods

The Infant Feeding Practices Study II (IFPS II) was a longitudinal cohort study of mothers in the US of healthy full-term or near full-term singletons. The study was conducted from 2005 to 2007 by the US Food and Drug Administration (USFDA) in partnership with the Centers for Disease Control and Prevention. A detailed description of IFPS II methodology was published in 2008.¹⁶ Institutional Review Board approval was obtained from the USFDA.

Women were recruited during their third trimester of pregnancy after being identified from a nationally distributed consumer opinion panel of more than 500,000 US households. Eligibility criteria included that mothers be aged 18 years or older, and that both mother and infant were without any medical conditions that would affect feeding. The infant had to be born after 35 weeks of gestation, weigh 5 or more pounds, and not have stayed in intensive care for 3 or more days. Women were mailed one prenatal and 10 postpartum surveys almost monthly after birth. More than 3,000 (n = 3,033) women completed both the prenatal (surveyed at approximately 7 months of gestational age) and neonatal (surveyed at approximately 1 month after birth) questionnaires of IFPS II, 2,524 (83%) of whom intended to breastfeed. We excluded the following: (a) 362 women who had stopped breastfeeding before the neonatal survey because they were not asked about their breastfeeding intention on the neonatal survey; (b) 120 women who did not answer the question on intended breastfeeding duration on the prenatal survey; and (c) 68 women who did not answer

Nelson et al.

the question on intended duration of breastfeeding on the neonatal survey. Therefore, 550 women were excluded because of missing data on breastfeeding intention. We also excluded 194 who were missing demographic information, leaving 1,780 mothers who intended to breastfeed and who were still breastfeeding at one month postpartum in the final analytical sample.

Women were asked on the prenatal and neonatal surveys: "How old do you think your baby will be when you completely stop breastfeeding?" (in months). Change in breastfeeding intention was calculated as the difference in intention reported on neonatal and prenatal surveys (i.e., neonatal intention minus prenatal intention). We classified change of intended breastfeeding duration as shorter neonatal intention, no change, and longer neonatal intention.

Actual breastfeeding duration was estimated by the question, "How old was this child when you completely stopped breastfeeding and pumping milk for him or her?" (in weeks). To calculate actual breastfeeding duration for children who were still breastfeeding at their last completed IFPS II questionnaire (n = 753), we linked IFPS II to its Year 6 Follow-up Study (Y6FU) in which mothers were asked to recall their breastfeeding duration. Detailed methods of Y6FU have been described elsewhere.¹⁷ Because of interactions between prenatal intention and its changes on actual breastfeeding duration, the examination of the association of actual breastfeeding duration with whether breastfeeding intention was shortened, lengthened, or constant was stratified by prenatal intended duration of more than 6 months (> 26 weeks) versus 6 months or less (26 weeks).

Covariates included maternal age (18–24, 25–29, 30–34, 35 years), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, Asian/Pacific Islander/Other, unknown), poverty-income ratio (<185%, 185%–349%, 350%), maternal education (high school, 1–3 years of college, college graduate), prepregnancy body mass index (BMI) (<18.5, 18.5–24.9, 25.0–29.9, 30 kg/m²), primiparous (yes/no), prenatal smoking status (yes/no), participation in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) (yes/no), cesarean delivery (yes/no), and marital status (yes/no).

Analyses were conducted in SAS 9.3 (SAS Institute, Cary, NC). Because breastfeeding duration was not normally distributed, the nonparametric Wilcoxon signed rank test was used to compare the mean ranks of actual breastfeeding duration (the dependent variable) by changes in intended breastfeeding duration (the predictor variable). Bivariate associations were assessed by using Pearson's chi-squared tests. Multivariable logistic regression was used to assess the odds of shortened intended breastfeeding duration versus no change or longer intended duration, by maternal sociodemographic characteristics.

Results

The median intended duration of breastfeeding on the prenatal survey was 11.0 months (range 1–48 months) and 10.0 months (range <1-48 months) on the neonatal survey. Comparing prenatal with neonatal surveys, 43.7% of mothers did not change their intended duration of breastfeeding, 35.0% shortened their intention, and 21.3% lengthened their

intention (Table 1). Among mothers whose neonatal intention was shorter, 44.5% intended to breastfeed for 1–2 months shorter, 27.1% for 3–4 months shorter, and 28.4% for longer than 5 months shorter. Among mothers whose neonatal intended duration of breastfeeding was longer, 49.9% intended to breastfeed for 1–2 months longer, 24.5% for 3–4 months longer, and 25.6% for more than 5 months longer.

Among women who had a prenatal breastfeeding intention of 6 or less months (approximately 26 weeks), mean actual breastfeeding duration was 3.4 months among those with a shorter intended breastfeeding duration, 7.1 months among those with no change in intention, and 8.0 months among those with a longer intention (P<.001) (Table 2). Among women who had a prenatal breastfeeding intention of more than 6 months (approximately >26 weeks), mean actual breastfeeding duration was 10.3 months among those with a shortened breastfeeding intention, 13.5 months for no change, and 13.6 months for longer intention (P<.001).

In bivariate analysis, the percentage of mothers with a shorter breastfeeding intention varied significantly by prepregnancy BMI (P= 0.01) and maternal age, race/ethnicity, parity, prenatal smoking, WIC participation, and marital status (P< 0.01) (data not shown). In the multivariable analysis adjusted for sociodemographic factors (Table 3), odds of shortened intended breastfeeding duration from the prenatal to neonatal reports was increased among Hispanic women, women with a prepregnancy BMI of 30 kg/m² or higher, women who were primiparous, and women who smoked prenatally. Maternal age of 35 years or older was associated with decreased odds of shortened intended breastfeeding duration.

Discussion

Many women (43.7%) adhere to their prenatal breastfeeding intentions, and slightly more than one-fifth (21.3%) had longer neonatal than prenatal breastfeeding intentions. However, approximately one in three mothers in our study shortened their intended breastfeeding duration after birth (35.0%). Even though previous reports already show that many mothers are not meeting their prenatal breastfeeding intentions compared to their actual breastfeeding duration,^{9, 11, 12} and women who meet their breastfeeding intentions are more often satisfied with how long they breastfeed, ¹⁸ there are no reports available that have examined the changes of maternal breastfeeding intentions from late pregnancy to shortly after birth. Our study demonstrates that change to intended duration of breastfeeding is significantly associated with actual breastfeeding duration, as suggested by other studies of the relationship between prenatal breastfeeding intentions and actual breastfeeding durations.^{8, 9} Within each prenatal intention (6 and >6 months), mothers who shortened their intended duration of breastfeeding after birth also had the shortest mean breastfeeding duration compared to those who did not change or increased their intended breastfeeding duration. These findings highlight the importance of breastfeeding support during the neonatal period.

Further, Hispanic women, women with a prepregnancy BMI of 30 kg/m^2 or higher, women who were primiparous, and women who smoked prenatally were at increased risk of shortening their intended duration of breastfeeding. Women with these demographic

Nelson et al.

characteristics often have lower breastfeeding rates¹⁹ and, therefore, may need extra support, such as access to professional and peer breastfeeding support, to meet their prenatal breastfeeding intentions.

Our findings highlight the importance of supporting breastfeeding mothers and infants during the late prenatal and early postpartum periods. Health care providers, including both obstetric²⁰ and pediatric²¹ providers, play a key role in discussing infant feeding plans with mothers during the prenatal period, as well as supporting breastfeeding after birth. Further, evidence-based maternity care practices, such as those outlined in the *Ten Steps to Successful Breastfeeding*,²² provide an optimal environment for the establishment of breastfeeding during the early postpartum period. These practices have been shown to positively affect the initiation,²³ actual duration,^{24, 25} and exclusivity^{23, 26} of breastfeeding.

Although evidence-based practices supportive of breastfeeding are important, community breastfeeding support, especially during the early neonatal period, is also critical. The American Academy of Pediatrics²⁷ and American College of Obstetrics and Gynecology²⁸ have both published guidelines for office-based clinical care providers, outlining how providers can best support breastfeeding mothers being seen in their offices. Additional efforts, such as strengthening programs providing mother-to-mother support, improving peer counseling, and others, as outlined in the *Surgeon General's Call to Action to Support Breastfeeding*,²⁹ may also help mothers successfully attain their prenatal breastfeeding goals after birth.

This study has several limitations and strengths. The IFPS II study, which was derived from a large sample of pregnant women drawn from a consumer opinion mail panel, was the largest longitudinal study of infant feeding in the United States. Despite this scope, when compared with other nationally representative samples, women included in IFPS II tended to have a higher socioeconomic status and were more likely to breastfeed and to breastfeed for a longer duration.¹⁶ Because women who stopped breastfeeding before the neonatal survey were not asked the neonatal intention question, the loss of this information during follow-up may result in the underestimation of negative changes to breastfeeding intention. All survey information was based on maternal report; as such, recall bias may have been introduced if mothers incorrectly reported information. Attempts to limit recall bias were made, however, by surveying women shortly after recruitment (prenatal survey) and within the first month after birth (neonatal survey), except for women who were still breastfeeding at the end of the initial study period who reported breastfeeding duration during the 6-year follow-up study.

Conclusions

Even though the majority of mothers in this study intended to breastfeed prenatally (83%), approximately one-third shortened their intended duration of breastfeeding between late pregnancy and a few weeks after giving birth. This decrease in intended breastfeeding duration was, in turn, associated with a shortened actual duration of breastfeeding. Further studies to identify the environmental factors for the changes on intention before and after birth are needed to support mothers in meeting their own prenatal breastfeeding intention.

Acknowledgments

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

References

- Donath SM, Amir LH, Team AS. Relationship between prenatal infant feeding intention and initiation and duration of breastfeeding: a cohort study. Acta Paediatr. 2003;92(3):352–356. [PubMed: 12725552]
- Lawson K, Tulloch MI. Breastfeeding duration: prenatal intentions and postnatal practices. J Adv Nurs. 1995;22(5):841–849. [PubMed: 8568056]
- 3. Stuebe AM, Bonuck K. What predicts intent to breastfeed exclusively? Breastfeeding knowledge, attitudes, and beliefs in a diverse urban population. Breastfeed Med. 2011;6(6):413–420. [PubMed: 21342016]
- Mirkovic KR, Perrine CG, Scanlon KS, Grummer-Strawn LM. In the United States, a Mother's Plans for Infant Feeding Are Associated with Her Plans for Employment. J Hum Lact. 2014;30(3):292–297. [PubMed: 24868017]
- O'Campo P, Faden RR, Gielen AC, Wang MC. Prenatal factors associated with breastfeeding duration: recommendations for prenatal interventions. Birth. 1992;19(4):195–201. [PubMed: 1472267]
- 6. Persad MD, Mensinger JL. Maternal breastfeeding attitudes: association with breastfeeding intent and socio-demographics among urban primiparas. J Commun Health. 2008;33(2):53–60.
- Nommsen-Rivers LA, Chantry CJ, Cohen RJ, Dewey KG. Comfort with the idea of formula feeding helps explain ethnic disparity in breastfeeding intentions among expectant first-time mothers. Breastfeed Med. 2010;5(1):25–33. [PubMed: 20043707]
- Colaizy TT, Saftlas AF, Morriss FH Jr. Maternal intention to breast-feed and breast-feeding outcomes in term and preterm infants: Pregnancy Risk Assessment Monitoring System (PRAMS), 2000–2003. Public Health Nutr. 2012;15(4):702–710. [PubMed: 21936968]
- Cronenwett L, Stukel T, Kearney M, Barrett J, Covington C, Del Monte K, et al. Single daily bottle use in the early weeks postpartum and breast-feeding outcomes. Pediatrics. 1992;90(5):760–766. [PubMed: 1408551]
- DiGirolamo A, Thompson N, Martorell R, Fein S, Grummer-Strawn L. Intention or experience? Predictors of continued breastfeeding. Health Educ Behav. 2005;32(2):208–226. [PubMed: 15749967]
- Chezem J, Friesen C, Boettcher J. Breastfeeding knowledge, breastfeeding confidence, and infant feeding plans: effects on actual feeding practices. JOGNN. 2003;32(1):40–47. [PubMed: 12570180]
- 12. Avery M, Duckett L, Dodgson J, Savik K, Henly SJ. Factors associated with very early weaning among primiparas intending to breastfeed. Matern Child Healt J. 1998;2(3):167–179.
- 13. Semenic S, Loiselle C, Gottlieb L. Predictors of the duration of exclusive breastfeeding among first-time mothers. Res Nurs Health. 2008;31(5):428–441. [PubMed: 18324667]
- Odom EC, Li R, Scanlon KS, Perrine CG, Grummer-Strawn L. Reasons for earlier than desired cessation of breastfeeding. Pediatrics. 2013;131(3):e726–732. [PubMed: 23420922]
- Declercq ER, Sakala C, Corry MP, Applebaum S, Herrlich A. 2013. Listening to Mothers III: Pregnancy and Birth. http://transform.childbirthconnection.org/wp-content/uploads/2013/06/LTM-III_Pregnancy-and-Birth.pdf. Accessed October 16, 2017.
- Fein SB, Labiner-Wolfe J, Shealy KR, Li R, Chen J, Grummer-Strawn LM. Infant Feeding Practices Study II: study methods. Pediatrics. 2008;122 Suppl 2:S28–35. [PubMed: 18829828]

- Fein SB, Li R, Chen J, Scanlon KS, Grummer-Strawn LM. Methods for the year 6 follow-up study of children in the Infant Feeding Practices Study II. Pediatrics. 2014;134 Suppl 1:S4–S12. [PubMed: 25183754]
- Gregory EF, Butz AM, Ghazarian SR, Gross SM, Johnson SB. Met Expectations and Satisfaction with Duration: A Patient-Centered Evaluation of Breastfeeding Outcomes in the Infant Feeding Practices Study II. J Hum Lact. 2015;31(3):444–451. [PubMed: 25858883]
- Li R, Ogden C, Ballew C, Gillespie C, Grummer-Strawn L. Prevalence of exclusive breastfeeding among US infants: the Third National Health and Nutrition Examination Survey (Phase II, 1991– 1994). Am J Public Health. 2002;92(7):1107–1110. [PubMed: 12084691]
- American Congress of Obstetricians and Gynecologists. Committee Opinion No. 658: Optimizing Support for Breastfeeding as Part of Obstetric Practice. Obstet Gynecol. 2016;127(2):e86–92. [PubMed: 26942393]
- 21. American Academy of Pediatrics. Breastfeeding and the use of human milk. Pediatrics. 2012;129(3):e827–841. [PubMed: 22371471]
- World Health Orangization and UNICEF. 2009. Baby-Friendly Hospital Initiative: Revised, Updated, and Expanded for Integrated Care. http://whqlibdoc.who.int/publications/ 2009/9789241594967_eng.pdf. Accessed October 16, 2017.
- Merewood A, Mehta SD, Chamberlain LB, Philipp BL, Bauchner H. Breastfeeding rates in US Baby-Friendly hospitals: results of a national survey. Pediatrics. 2005;116(3):628–634. [PubMed: 16140702]
- Murray EK, Ricketts S, Dellaport J. Hospital practices that increase breastfeeding duration: results from a population-based study. Birth. 2007;34(3):202–211. [PubMed: 17718870]
- DiGirolamo AM, Grummer-Strawn LM, Fein SB. Effect of maternity-care practices on breastfeeding. Pediatrics. 2008;122 Suppl 2:S43–49. [PubMed: 18829830]
- Perrine CG, Scanlon KS, Li R, Odom E, Grummer-Strawn LM. Baby-Friendly hospital practices and meeting exclusive breastfeeding intention. Pediatrics. 2012;130(1):54–60. [PubMed: 22665406]
- 27. American Academy of Pediatrics. 2016. How to have a breastfeeding friendly practice. http:// www2.aap.org/breastfeeding/files/pdf/aap%20havefriendlypractice.pdf. Accessed April 27, 2016.
- The American Congress of Obstetricians and Gynecologists. 2017. ACOG Breastfeeding Toolkit. http://www.acog.org/About-ACOG/ACOG-Departments/Toolkits-for-Health-Care-Providers/Breastfeeding-Toolkit. Accessed April 27, 2016.
- 29. Office of the Surgeon General. 2014. The Surgeon General's Call to Action to Support Breastfeeding. https://www.surgeongeneral.gov/library/calls/breastfeeding/index.html. Accessed June 12, 2017.

-

_

Table 1.

Change to Intended Duration of Breastfeeding Between the Prenatal and Neonatal Reports, IFPS II, 2005–2007 (N = 1,780)

	n (%)
No change	778 (43.7)
Neonatal intention shorter than prenatal, by:	623 (35.0)
1 to 2 months	277 (44.5)
3 to 4 months	169 (27.1)
>5 months	177 (28.4)
Neonatal intention longer than prenatal, by:	379 (21.3)
1 to 2 months	189 (49.9)
3 to 4 months	93 (24.5)
>5 months	97 (25.6)

Note. IFPS II refers to the Infant Feeding Practices Study II.

Author Manuscript

Mean Actual Breastfeeding Duration by Prenatal and Neonatal Intention (N = 1,780), IFPS II, 2005–2007

Prenatal intended	Change in intended breastfeeding duration at		Mean prenatal intention	Mean neonatal intention	Mean actual breastfeeding	a
breastfeeding duration	neonatal report	n	(months)	(months)	duration (months)	P-value"
6 months	Shorter	151	5.0	2.7	3.4	<.001
(26 weeks)	No change	184	5.3	5.3	7.1	
	Longer	149	4.2	8.0	8.0	
>6 months	Shorter	472	12.2	8.3	10.3	<.001
(>26 weeks)	No change	594	12.9	12.9	13.5	
	Longer	230	11.6	14.7	13.6	

 ^{a}P value was obtained by Wilcoxon signed rank test comparing the mean ranks of actual breastfeeding duration by change in intended breastfeeding duration at neonatal report.

Table 3.

Odds of Shorter Intended Duration of Breastfeeding, by Demographic Characteristics, IFPS II, 2005–2007 (N = 1,780)

	Total	Shorter Intention ^b	
	n (% ^{<i>a</i>})	$n(\%^{c})$	<i>aOR</i> ^d (95% CI)
Total	1,780 (100)	623 (35.0)	
Maternal age (year)			
18–24	309 (17.4)	134 (43.4)	Reference
25–29	633 (35.6)	217 (34.3)	0.77 (0.57-1.05)
30–34	539 (30.3)	186 (34.5)	0.83 (0.59–1.17)
35	299 (16.8)	86 (28.8)	0.64 (0.43-0.94)
Race/ethnicity			
Non-Hispanic white	1,502 (84.4)	501 (33.4)	Reference
Non-Hispanic black	72 (4.0)	30 (41.7)	1.29 (0.78–2.13)
Hispanic	112 (6.3)	52 (46.4)	1.60 (1.08-2.39)
Asian/Pacific Islander/Other	94 (5.3)	40 (42.6)	1.48 (0.96–2.28)
Poverty-income ratio			
<185%	661 (37.1)	241 (36.5)	Reference
185%-349%	671 (37.7)	223 (33.2)	1.02 (0.79–1.33)
350%	448 (25.2)	159 (35.5)	1.11 (0.80–1.54)
Maternal education			
High school	269 (15.1)	96 (35.7)	0.89 (0.63–1.25)
1-3 year(s) of college	704 (39.6)	265 (37.6)	1.09 (0.85–1.39)
College graduate	807 (45.3)	262 (32.5)	Reference
Prepregnancy BMI (kg/m ²)			
<18.5	70 (3.9)	19 (27.1)	0.69 (0.40-1.20)
18.5–24.9	848 (47.6)	290 (34.2)	Reference
25.0-29.9	468 (26.3)	151 (32.3)	0.96 (0.75–1.22)
30	394 (22.1)	163 (41.4)	1.43 (1.10-1.84)
Multiparous			
Yes	1,295 (72.8)	418 (32.3)	Reference
No	485 (27.2)	205 (42.3)	1.39 (1.09–1.78)
Prenatal smoker			
Yes	99 (5.6)	53 (53.5)	1.69 (1.10-2.60)
No	1,681 (94.4)	592 (35.2)	Reference
WIC participation			
Yes	576 (32.4)	228 (39.6)	1.10 (0.84–1.45)
No	1,204 (67.6)	395 (32.8)	Reference
Cesarean delivery			
Yes	476 (26.7)	170 (35.7)	1.00 (0.79–1.26)
No	1,304 (73.3)	453 (34.7)	Reference

	Total n (% ^a)	Shorter Intention ^b n (% ^c)	<i>aOR</i> ^d (95% CI)
Married			
Yes	1,491 (83.8)	495 (33.2)	Reference
No	289 (16.2)	128 (44.3)	1.23 (0.92–1.65)

IFPS II refers to the Infant Feeding Practices Study II. BMI is body mass index. WIC refers to the Special Supplemental Nutrition Program for Women, Infants, and Children.

^aColumn percentage

 $^b\mathrm{A}$ neonatal breastfeeding intention that was shorter than prenatal breastfeeding intention.

^cRow percentage

 $d_{\rm Adjusting}$ for listed sociodemographic characteristics

Author Manuscript