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Maternal prenatal attitudes and postnatal breastfeeding behaviors in rural Bangladesh

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Abstract

Maternal prenatal attitudes and postnatal breastfeeding behaviors in rural Bangladesh
By Elaine A. Yu

Objective: We assessed the relationships between psychosocial constructs (maternal intention, attitudes, self-efficacy, breastfeeding knowledge) at 7 mo gestation and exclusive or full breastfeeding at 3 mo postpartum.

Design: Prospective longitudinal cohort study with structured home interviews during pregnancy and 3 mo after delivery.

Setting: Two rural sub-districts (Karimganj; Katiadi) of Kishoreganj district, Bangladesh.

Subjects: Mother-infant dyads.

Results: Over 75% of 1470 pregnant women intended to exclusively breastfeed (EBF). Maternal positive attitudes, self-efficacy, and knowledge about breastfeeding were positively associated with intentions to EBF during the 3rd trimester of pregnancy (all $p < 0.05$). All mothers reported initiating breastfeeding, and nearly all children were still breastfed at 3 mo. According to 24-hour dietary recalls, we categorized 639 (43.5%) infants as EBF (47.2% among mothers with intention; 31.0% no intention), and 389 (26.5%) infants as predominantly breastfed (PBF) (25.2% intention; 30.7% no intention) at 3 mo. Prenatal maternal intention to EBF was associated with EBF (aOR 1.35, 95% CI: 1.02-1.80) and full breastfeeding (aOR 1.29, 95% CI: 0.98-1.70) at age 3 mo, adjusting for covariates. EBF and full breastfeeding at age 3 mo were not associated ($p > 0.05$) with any other prenatal maternal psychosocial constructs examined, controlling for covariates.

Conclusions: Despite expressed maternal intentions to exclusively breastfeed during pregnancy and universal breastfeeding initiation, prevalences of both exclusive and full breastfeeding at 3 mo remain lower than WHO recommendations. Our findings indicate associations between EBF intention and postnatal breastfeeding behaviors, suggesting the importance of prenatal intention and psychosocial factors in supporting optimal infant feeding behaviors.

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Table of Contents

Chapter I. Literature Review of Breastfeeding and Psychosocial Risk Factors

Benefits and Consequences of Exclusive Breastfeeding.....	1
• WHO and UNICEF Breastfeeding Definitions	
Global Trends in Breastfeeding.....	3
Breastfeeding in Bangladesh.....	3
Determinants of Breastfeeding Behaviors.....	4
• Conceptual Framework: Theory of Planned Behavior	
• Previous Studies on Risk Factors	
○ Sociodemographic	
○ Psychosocial	
Next Steps.....	15
Literature Review References.....	16

Chapter II. Manuscript Draft

Abstract.....	22
Introduction.....	23
Methods.....	24
Results.....	28
Discussion.....	31
Tables and Figures.....	35
References.....	40

Chapter III. Implications

Summary, Implications and Future Directions	44
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Appendix

Definitions of Breastfeeding.....	46
Additional Data Tables.....	47
• Descriptive Statistics	
• Variations of Multivariate Logistic Regressions	
<i>Akhoni Shomay</i> Project/Study Timeline.....	76
Study Participation Flow Charts.....	77
• Cohort 1 Flow Chart	
• Cohort 2 Flow Chart	
Map of Study Locations.....	79
Ethical Review Approval Letter.....	80
Project Involvement and Responsibilities.....	82
Pregnancy Questionnaire.....	83
3 Month Questionnaire.....	115
Appendix References.....	161

Tables & Figures

Chapter I: Literature Review

Table L1: EBF Prevalence in Bangladesh	3
Figure L1: Conceptual Framework: Theory of Planned Behavior.....	4
Table L2: Attitudes, Subjective Norms, Perceived Control, Intentions, and Other Psychosocial Factors Influencing Breastfeeding Behaviors.....	10

Chapter II: Manuscript Draft

Table 1: Demographic and Household Characteristics among women during pregnancy in Karimganj and Katiadi.....	35
Table 2: Breastfeeding of 3 Month Old Infants from 24-Hour and Since-Birth Dietary Recalls.....	36
Figure 1: EBF Prevalence from Birth to 3 Months Among Women With and Without EBF Intention.....	37
Table 3: Maternal Intentions to EBF, Attitudes, Self-Efficacy, and Knowledge during Third Pregnancy Trimester.....	38
Table 4: Multivariate Logistic Regressions for Exclusive and Full Breastfeeding at 3 Months in Karimganj and Katiadi.....	39

Chapter IV: Appendix

Figure A1: Definitions for Infant Feeding Practices.....	46
Table A1: Breastfeeding Practices from Birth to 3 Months among Mothers Intending and Not Intending to EBF.....	47
Table A2: Breastfeeding Practices from Birth to 3 Months in Karimganj and Katiadi.....	48
Table A3: Twenty-Four Hour Dietary Consumption Recall among Infants at 3 Months in Karimganj and Katiadi.....	49
Table A4: Liquid Consumption Recall between Birth and 3 Days among Infants in Karimganj and Katiadi.....	50
Table A5: Intentions versus Mutually-Exclusive Categories of Breastfeeding Practices among 3 Month Infants in Karimganj and Katiadi.....	51
Table A6: WHO Growth Indicators among Infants at 3 Months in Karimganj and Katiadi.....	52
Table A7: Anemia at 3 Months among Mothers and Infants in Karimganj and Katiadi.....	53
Table A8: Diarrhea, ARI, and Fever among Infants at 3 Months.....	54
Table A9: Household Characteristics of Mother-Infant Dyads.....	55
Table A10: Delivery Locations of Infants in Karimganj & Katiadi.....	57
Table A11: Sources of Breastfeeding Information & Support Reported by Mothers at 3 Months.....	58
Table A12: Counseling during pregnancy from Other NGO Worker.....	59
Table A13: Bivariate Logistic Regression Results for Exclusively Breastfeeding at 3 Months.....	60
Table A14: Multivariate Logistic Regression Results for Exclusive	

Breastfeeding at 3 Months in Karimganj and Katiadi.....	62
Table A15: Multivariate Logistic Regression Results for Exclusive Breastfeeding at 3 Months in Karimganj and Katiadi (Continuous Maternal Indices)	64
Table A16: Multivariate Logistic Regression Results for Exclusive Breastfeeding at 3 Months in Karimganj and Katiadi (Categorical Maternal Indices – distribution-based cutpoints)	66
Table A17: Bivariate Logistic Regression Results for Full Breastfeeding at 3 Months	68
Table A18: Multivariate Logistic Regression Results for Full Breastfeeding at 3 Months in Karimganj and Katiadi.....	70
Table A19: Multivariate Logistic Regression Results for Full Breastfeeding at 3 Months in Karimganj and Katiadi (Continuous Maternal Indices).....	72
Table A20: Multivariate Logistic Regression Results for Full Breastfeeding at 3 Months in Karimganj and Katiadi (Categorical Maternal Indices by distribution-based cutpoints)	74
Figure A2: <i>Akhoni Shomay</i> Project – Cohort Study Timeline.....	76
Figure A3: Flow chart of Cohort 1 study subject enrollment and follow-up.....	77
Figure A4: Flow chart of Cohort 2 study subject enrollment and follow-up.....	78
Figure A5. Map of Karimganj and Katiadi <i>Upazilas</i> (sub-districts) in Kishoreganj District.....	79

Chapter I: Literature Review

Benefits and Consequences of Appropriate Infant and Young Child Feeding

An extensive literature has developed on the benefits of breastfeeding for infant health. Reviews from research and policy perspectives have summarized studies published over several decades, including a series of American Academy of Pediatrics policy statements (1997, 2005, 2012).(1-3) Since the 1980's, many studies have established that breastfeeding is associated with decreased incidence and severity of diarrhea, bacterial meningitis, bacteremia, acute respiratory infection (ARI), otitis media, botulism, urinary tract infection, necrotizing enterocolitis, and late sepsis in preterm infants.(1-3) More recently, research in the past decade has indicated associations between suboptimal breastfeeding and longer-term outcomes, including diabetes, developmental delays, and neurodevelopmental impairments.(2, 3)

As part of efforts to improve infant and young child feeding (IYCF) practices, breastfeeding behaviors were defined by the World Health Organization (WHO) and UNICEF.(4)

Exclusive breastfeeding (EBF): Only breast milk (including milk expressed or from a wet nurse) with the exceptions of oral rehydration solution (ORS), drops, syrups (vitamins, minerals, medicines)

Predominant breastfeeding (PBF): Breast milk (including milk expressed or from a wet nurse) as the predominant source of nourishment, however allows for certain liquids (water and water-based drinks, fruit juice), ritual fluids, ORS, drops, syrups (vitamins, minerals, medicines)

Complementary feeding: Breast milk (including milk expressed or from a wet nurse) and solid or semi-solid foods, however allows for any foods or liquids including non-human milk and formula

Breastfeeding: Breast milk (including milk expressed or from a wet nurse) and solid or semi-solid foods, however allows for any foods or liquids including non-human milk and formula

Exclusive breastfeeding (EBF) is widely considered the ideal infant feeding practice for healthy development during the first 6 months of life.(5, 6) Consequences from early exclusive breastfeeding attrition include increased mortality and morbidity risks (related to diarrhea and ARI), as evident in a number of studies.(7) According to a recent a meta-analysis, infants not breastfed had an excess risk of diarrhea incidence (RR: 2.7, 95% CI: 1.7-4.1) and mortality (RR: 10.5, 95% CI: 2.8-39.6), compared to exclusively breastfed children between 0-5 months.(8)

The WHO and UNICEF jointly recommend EBF from birth to six months, and complementary feeding until 2 years of age.(5, 6) Since the late 1970's, the WHO and UNICEF have supported breastfeeding through several initiatives and statements, including the: Baby-Friendly Hospital Initiative; Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding; WHO/ UNICEF joint statement for Protecting, Promoting, and Supporting Breastfeeding; and WHO International Code of Marketing of Breast Milk Substitutes.

Global Patterns in Breastfeeding

Globally, 36% of infants are EBF during the first 6 months of life, according to an estimate from country-level data in the World Health Statistics 2011 (WHO).² Across 125 countries, prevalences of EBF infants under 6 months range from < 1% to 88%.⁽⁹⁾ Forty-four percent of infants under 6 months are EBF in the WHO region (South-East Asia) that Bangladesh is categorized in.⁽⁹⁾ Lower mean EBF proportions of children under 6 months are reported for the other WHO geographic regions (African 13%; Region of the Americas 30%; European 23%; Eastern Mediterranean 35%). According to income-based WHO categories, low-income countries have a higher proportion (41%) of EBF among infants under 6 months, relative to low-middle (36%), middle (33%), and high (17%) income groups.⁽⁹⁾

Breastfeeding in Bangladesh

Table L1. EBF Prevalence in Bangladesh

	Year		BF Initiation		EBF			
			N		N	Infants < 6 mo	N	
BDHS 2007 (NIPORT)(10)	2007	National: Total	97.8%	6058			42.9%	
Bangladesh Multiple Indicator Cluster Survey (BD Bureau of Statistics (BBS)/UNICEF)(11)	2007	National: Total			49.7%	1338	37.4%	
		Children by area: Rural			50.2%	983	37.7%	1717
Child and Mother Nutrition Survey of Bangladesh (BBS/UNICEF)(12)	2005	National: Total					58.4%	
		Children by area: Rural					59.1%	
BDHS 2004 (NIPORT)(13)	2004	National: Total	98.1%	7002	44.4%	441	36.2%	682
		Children by area: Rural	98.2%	5610				
BDHS 1999-2000(14)	1999-2000	National: Total	97.1%	6939	52.8%	546	46.1%	771
		Children by area: Rural	97.1%	5797				
BDHS 1996-1997(15)	1996-1997	National: Total	96.6%	6230	50.9%	437	45.1%	321
		Children by area: Rural	96.7%	5673				
BDHS 1993-1994(16)	1993-1994	National: Total	96.2%	3926	53.5%	414	45.9%	625
		Children by area: Rural	96.2%	3531				

WHO Global Data Bank on Infant and Young Child Feeding (IYCF): Bangladesh(17)

According to the WHO Global Data Bank on Infant and Young Child Feeding (IYCF), breastfeeding initiation is nearly universal in Bangladesh (97.8%, Table L1).⁽¹⁰⁾ Minimal difference is observed in breastfeeding initiation between rural (97.7%) and urban areas (98.1%). Since the 1990's, national prevalence of breastfeeding initiation has consistently remained over 96%.⁽¹³⁻¹⁶⁾

² Global, regional, and income-group aggregate values are calculated as sum totals of EBF infants <6 months, with the combined totals of study populations as the denominator. Countries are only included if data are available for at least 50% of the population.

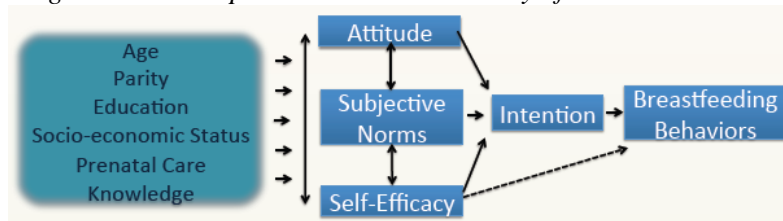
National prevalence of EBF among infants under 6 months is 42.9% according to the Bangladesh Demographic and Health Survey (BDHS) 2007.(10) Median EBF duration was 1.7 months in 2004, according to BDHS.(13) Over the past two decades, national surveys of EBF have reported EBF (< 6 months) ranging between 36.2-58.4%.(11-16) Although current national recommendations are to EBF until 6 months, previous recommendations were only until 5 months of age in the early 2000's, which could account for some variability of reported EBF prevalence.(18)

Among infants under 4 months, EBF prevalence was 50.2% in rural areas based on the Bangladesh Multiple Indicator Cluster Survey 2007.(11) In previous national surveys since the 1990's, EBF among children less than 4 months ranged between 44.4-53.5% with no clear time trend.(13-16)

Determinants of Breastfeeding Behaviors *Conceptual Framework: Theory of Planned Behavior*

Since the development of the Theory of Planned Behavior (TPB), a general psychological model for human behavior, many studies have incorporated the TPB as a theoretical framework to understand determinants of breastfeeding behaviors over the past two decades. According to the TPB, attitudes, subjective norms, and perceived behavioral control predict intention to perform a certain behavior; intention then predicts the behavior.(19, 20) Many studies have found evidence supporting the TPB. In a meta-analytic review of 185 independent studies, 27% and 39% of variances in behavior and intention were accounted for by the TPB framework.(21)

Figure 11. Conceptual Framework: Theory of Planned Behavior



Previous Studies on Determinants of Suboptimal Breastfeeding

Socio-demographic, Economic, and Biophysical Risk Factors of Suboptimal Breastfeeding

In addition to the intentions for breastfeeding and proximal psychosocial constructs that affect breastfeeding behaviors according to the TPB, many studies have characterized associations between infant feeding behaviors and socio-demographic, economic, and biophysical risk factors. Recent reviews by Dennis *et al.* 2002, Li *et al.* 2005, and Thulier *et al.* 2009 summarize findings(22-24). It should be noted that these studies have predominantly been conducted in the United States (US).

Many studies have shown a positive association between maternal age and breastfeeding duration.(22, 24) Women with increased parity have been observed more likely to breastfeed longer, although parity is closely associated with older age.(24) In previous studies, married women tended to breastfeed more frequently and for longer duration.(22, 24)

Socioeconomic status (SES) is a predictor of breastfeeding behavior with research indicating an positive association between SES and breastfeeding incidence and duration.(22, 24) According to many studies in the U.S., children receiving WIC benefits are less likely to be breastfed.(23, 24)

Research indicates that more years of maternal education is associated with longer breastfeeding duration than women with less education.(22, 24) Women who attend prenatal care are more likely to initiate and continue breastfeeding.(22)

Additionally, prior research has considered many other predictors, including ethnicity, smoking, and biophysical barriers. Ethnicity has been associated with differences in breastfeeding incidence, although causal relationships may be difficult to discern due to racial disparities in socio-economic status.(22, 23) White women tend to be most likely to initiate and continue breastfeeding.(22) Mothers of non-Hispanic black children were observed to have lower rates of breastfeeding compared to other women in the U.S.(23) Biological factors that have been

reported as challenges to sustained breastfeeding include: insufficient milk supply; poor infant health; physical challenges; and maternal smoking.(24)

Maternal Psychosocial Risk Factors and Knowledge of Breastfeeding Behaviors

This review identified 35 relevant studies regarding maternal psychosocial risk factors and knowledge relating to breastfeeding behaviors, with methodological designs ranging from qualitative assessments, cross-sectional, cohort, and randomized control trials (Table L2). Between June 2011 and April 2012, published journal articles were identified through PubMed and Google Scholar search engines. Search strategies were based on individual and combinations of search terms including: maternal, psychosocial, attitude, self-efficacy, subjective norms, exclusive breastfeeding, breastfeeding, duration, initiation, attrition, exclusivity, behavior.

Over 75 abstracts were initially assessed based on relevance criteria; articles were then further reviewed. Only articles that were published after 1980 in English were considered. Additional inclusion criteria included: focusing on either maternal breastfeeding intention or behaviors (or both) as outcomes; and assessing maternal psychosocial factors (attitudes, self-efficacy, subjective norms) and breastfeeding knowledge.

Geographic locations included Australia, Canada, Mozambique, and Hong Kong, however nearly all studies were in well-resourced countries, particularly the United States (US). Sample populations of women ranged from those with lower incomes (Medicaid, WIC recipients) to certain ethnic groups (Latina, white) and no previous parity (primigravida), yet there were almost no women from developing countries. Follow-up times ranged between pregnancy and 1 year after delivery. While many studies assess psychosocial factors during postpartum hospital stays, approximately one-third of reviewed cohort studies estimate attitudes, self-efficacy, and perceptions of support during pregnancy.

Specific breastfeeding outcomes (including exclusivity, initiation, and intensity) vary across studies, however a large fraction assesses breastfeeding duration. Many studies center on a

few categories of psychosocial constructs (namely intention, positive and negative attitudes, self-efficacy, subjective norms), although there is much variation within each general group in terms of topics covered (such as worries, embarrassment about breastfeeding). Most studies assess multiple psychosocial risk factors. Some psychosocial scales are considered validated instruments; however a number of publications also create or adapt instruments, and report findings from use of the developed scales.

Attitudes

Studies assessing maternal positive and negative affects towards breastfeeding most often considered breastfeeding duration as the key outcome, although some studies focus on intention and exclusivity as well. Most studies include items to assess both positive and negative sentiments, however a few singularly focus on positive(25) or negative(26) attitudes. A number of studies incorporate attitudinal subscales similar to the Breastfeeding Attrition Prediction Tool (BAPT)(27-32) or Breastfeeding Attitudes Questionnaire (BAQ).(33) Most studies that assess the influence of maternal attitudes on breastfeeding indicate that stronger positive attitudes increase the likelihood of continued breastfeeding; conversely, stronger negative attitudes increase the chance of shorter breastfeeding duration.(25, 27, 29, 31-41) A few studies found that attitudinal indices did not predict breastfeeding duration(28, 30) and exclusivity(42), however these studies also had a small or non-representative sample, or little variance in reported attitudes. Among studies that assess how predictive attitudes are of intention to breastfeed, attitudes appear to be associated with intention.(29, 39)

Among 587 Australian women recruited from maternity clinics, a prospective cohort study assessed attitudes shortly before or during postpartum hospital stays; and subsequent breastfeeding through telephone follow-up interviews at 4, 10, 16, 22, 32, 40, 52 weeks after delivery. Maternal attitudes were not associated with breastfeeding

duration for most of the time points assessed, with the exceptions of 6 and 12 months.(34)

In the Midwest (US), a study including 602 primagravida mothers similarly conducted in-person interviews during postpartum hospitalization, and telephone follow-up interviews at 1, 3, 6, 9, and over 12 months after delivery. All sub-analyses indicate attitudes associated with breastfeeding behavioral outcomes.(38)

Another study in the Midwest with postpartum interviews, and telephone follow-ups (only to 16 weeks after delivery) additionally randomly assigned interventions (formula samples, manual breast pump, formula and breast pump). In all three groups, attitude regarding infant feeding choice significantly predicted partial breastfeeding duration, controlling for other demographic and intervention-related covariates.(36)

Self-Efficacy

Previous literature considering the effects of maternal confidence on breastfeeding behavioral outcomes primarily draws from several instruments, including the Breastfeeding Self-Efficacy Scale (BSES), BAPT, or adaptations (BSES-Short Form (BSES-SF)). Many studies report a positive relationship between self-efficacy and appropriate breastfeeding behaviors (duration,(33, 37-40, 43) attrition,(27, 31, 32, 44) exclusivity(43, 45)). However, some studies show no associations.(26, 28, 30, 35)

A prospective cohort study among British Columbian women administered the unabbreviated BSES during pregnancy, and followed women 6 weeks after delivery.(44) Higher BSES scores were associated with increased likelihood that mothers were EBF at 6 weeks postpartum.

In a longitudinal study among women in Australia, the BSES-SF assessed self-efficacy during postpartum hospital stays; and self-administered questionnaires mailed at 1, 4, and 8 weeks after delivery documented early breastfeeding attrition.(43) Study

results confirmed that the BSES-SF measure of confidence was predictive of discontinued breastfeeding.

Intentions to Breastfeed

Compared to other psychosocial factors (attitudes, self-efficacy, subjective norms), relatively fewer studies have assessed the extent to which intention to breastfeed predicts behaviors. Among the relevant studies, all were prospective cohort studies. Findings indicate positive associations between breastfeeding intention and behavior.(35, 37, 39, 46, 47)

Knowledge

Among studies considering the influences of maternal knowledge regarding breastfeeding on infant feeding practices, most indicate that knowledge predicts breastfeeding initiation(26, 48) and intention.(49) However there is no association with EBF, according to a cross-sectional study among 599 Jamaican women.(42) Enrolling primiparous women from prenatal clinics and schools in the Midwest (US), a randomized controlled trial with an education and counseling intervention found that breastfeeding knowledge predicts initiation (OR: 1.12, 95% CI: 1.03-1.22).

Table L2. Attitudes, Subjective Norms, Perceived Control, Intentions, & Other Psychosocial Factors Influencing Breastfeeding Behaviors

Authors	Study Design	N	Location	Sample	Outcome	Exposure				Results / Notes
						+ 0 - = direction of association with Outcome				
						Attitude	Perceived Control	Subjective Norms	Others ³	
Randomized Controlled Trials										
Wambach et al 2011 (48)	RCT with education/counseling intervention	289	Midwest, US	Primiparous women enrolled from prenatal clinics and schools	BF initiation			+	0 Intervention; + Knowledge; Intention +	Breastfeeding knowledge (OR: 1.12, 95% CI: 1.03-1.22) Study group (OR: 1.59, 95% CI: 0.70-3.61) Intention (OR: 1.86, 95% CI: 1.44-2.40) Social & professional support (OR: 1.07, 95% CI: 1.02-1.12)
					BF duration				+ Intervention	
					EBF				0 Intervention	
Anderson et al 2005 (50)	RCT with EBF peer counseling offered during 3 prenatal, daily perinatal, 9 postpartum home visits, and telephone counseling	162	Connecticut, US	Expectant mothers (<32 weeks gestational age) considering breastfeeding	Ever EBF (reported at 3 mo)				+ Intervention	The likelihood of nonexclusive breastfeeding throughout the first 3 months was significantly higher for the control than the intervention (99% vs 79%; RR=1.24; 95% CI, 1.09-1.41).
					EBF duration (at 3 mo)				+ Intervention	At 3 months, 97% in the control and 73% in the intervention had not exclusively breastfed (relative risk [RR]=1.33; 95% CI, 1.14-1.56) during the previous 24 hours.
Bonuck et al 2005(51)	Randomized nonblinded controlled trial with multi-component breastfeeding promotion intervention (individualized pre- and postnatal) and interviews at baseline (prenatal) and 1,2,3,4,6,8,10,12 months postpartum	304	New York, US	Prenatal care patients recruited from 2 hospital-affiliated health centers	BF intensity				+ Intervention	In multivariate analyses, control subjects had lower breastfeeding intensity at 13 weeks (odds ratio [OR]: 1.90; 95% confidence interval [CI]: 1.13-3.20) and 52 weeks (OR: 2.50; 95% CI: 1.48 - 4.21).
Chapman et al 2004 (52)	Randomized prospective controlled trial with prenatal recruitment, and random assignment to either routine breastfeeding education or education with peer counseling interventions. Peer counseling included 1 prenatal home visit, daily perinatal visits, 3 postpartum home visits, and telephone contact. Interviews at 48 hrs; 1, 3, 6 months postpartum	165	Connecticut, US	Pregnant (Latina, urban) women (<= 26 weeks gestation) recruited from hospital prenatal clinic	BF at birth, 1, 3, 6 months				+ Intervention	The proportion not initiating breastfeeding was significantly lower in the intervention group than among controls (8/90 [9%] vs 17/75 [23%]; relative risk, 0.39; 95% confidence interval, 0.18-0.86). The probability of stopping breastfeeding also tended to be lower in the intervention group at both 1 month (36% vs 49%; relative risk, 0.72; 95% confidence interval, 0.50-1.05) and 3 months (56% vs 71%; relative risk, 0.78; 95% confidence interval, 0.61-1.00).

³ Additional exposure variables are only listed if directly relevant to comparison.

Prospective Cohort Studies													
Dick et al 2002 (27)	Cohort study with two contacts during postpartum hospital stay and 8 weeks after delivery.	269	North Carolina & Florida, US	Women from 3 hospitals who gave birth to healthy term infants	Early BF attrition	+	(BAPT)	+	(BAPT)	+	(BAPT)	Modified BAPT was an effective predictor of 78% of women who stopped breastfeeding before 8 weeks and 68% of those who were still breastfeeding	
Evans et al 2004 (28)	Cohort study with administration of BAPT1 during last pregnancy trimester, BAPT2 during postpartum hospital stay, and telephone interview at 8 weeks.	117	Southeast, US	Pregnant women intending to breastfeed, attending educational class	BF at 8 weeks	0	(BAPT)	0	(BAPT)	0	(BAPT)	Subjects in the current study were all committed enough to attend breastfeeding class, which differs from women generally (and in other studies)	
Gill et al 2007 (29)	Cross-sectional study with administration of BAPT at early postpartum and recruitment from 2 health department maternity clinics	143		Mexican American pregnant women	BF intention	+	(BAPT)	+	(BAPT)	+	(BAPT)	Not all items loaded significantly.	
Lewallen et al 2006 (30)	Cohort study with administration of BAPT and modified BrAS by phone during pregnancy and at postpartum hospital stay	415	North Carolina, US	Pregnant women in third trimester from public prenatal clinic	BF attrition	0	(BAPT)	0	(BAPT)	0	(BAPT)	The BAPT did not predict early breast-feeding attrition; however, the BrAS did differentiate between the attitudes of breast-feeding women and those of formula-feeding women and had adequate reliability.	
Mossman et al 2008 (33)	Cohort study with administration of the Breastfeeding Attitudes Questionnaire (BAQ) and Breastfeeding Self-Efficacy Scale – Short Form (BSES-SF) during postpartum hospital stay; and follow-ups at 1 and 4 weeks after delivery	84	Manitoba, Canada	Pregnant adolescents attending prenatal clinic	BF duration (to 4 weeks)	+	(BAQ)	+	(BSES-SF)			Mothers with higher prenatal breastfeeding attitude scores and higher prenatal and postnatal confidence scores were more likely to continue breastfeeding to 4 weeks postpartum.	
Scott et al 2006 (34)	Cohort study with recruitment shortly before or after postpartum hospital stay; phone follow-ups at 4, 10, 16, 22, 32, 40, 52 weeks after delivery	587	Perth, Australia	Women with newborn infants, recruited from 2 maternity clinics	BF duration at 6 and 12 months	+	(attitudes)					- Difficulties	
Lawson et al 1995 (35)	Cohort study with self-administered pre- and postnatal questionnaires	78	National, Australia	Primipara women from urban and rural areas, recruited through many sources	BF duration	+	(attitudes)	0	(confidence)			+ Intention (prenatal)	Results reflect correlations.

Blyth et al 2002 (43)	Cohort study with administration of BSES during pregnancy (interview) and 1 week postpartum; breastfeeding behaviors assessed at 1 and 4 weeks postpartum (phone calls)	300	Brisbane, Australia		BF duration (1 & 4 weeks)		+	(BSES)			Antenatal and 1-week Breastfeeding Self-Efficacy Scale scores were significantly related to breastfeeding outcomes at 1 week and 4 months. Mothers with high breastfeeding self-efficacy were significantly more likely to be breastfeeding, and doing so exclusively, at 1 week and 4 months postpartum than mothers with low breastfeeding self-efficacy.
Janke 1988 (46)	Hospital questionnaire 1-2 days after delivery, with structured telephone interview 6-7 weeks after.	215			BF duration				Intention to BF +		Greater commitment, more likely woman still breastfed at 6 weeks. Non-significant difference in attrition rates between vaginal versus cesarean births.
De La Mora et al 1999 (IIFAS) (36)	Self-administered questionnaire at hospital within 48 hours after delivery; telephone interviews for 1 st 16 weeks after delivery every 2 weeks. 3 randomly assigned interventions: formula samples; manual breast pump; formula + manual breast pump	725	Midwest, US	Women who initiated breastfeeding while in hospital	BF duration (16 weeks postpartum)	+					Attitude toward choice of infant feeding a significant predictor of duration of partial breastfeeding, adjusting for intervention & demographic factors
Leff et al 1994 (MBFES) (25)	Structured questionnaire mailed to random sample of 1000 18 years+ women who had given birth in the previous year at a hospital	442	New England, US	Mother with infants < 1 years	BF duration	+	(maternal enjoyment /satisfaction with breastfeeding)				
Dennis et al 1999 (BSES) (45)	Convenient sample of women in postpartum hospital unit completed Breastfeeding Self-Efficacy Scale (BSES) as part of longer self-administered questionnaire; telephone interviewed at 6 weeks postpartum	130	Midsize city, Canada	Mothers with newborn infants at large teaching hospital	EBF at 6 weeks postpartum		+	(self-efficacy)			Higher BSES score, more likely mother to be EBF at 6 weeks postpartum
Dennis 2003 (BSES-SF) (44)	Longitudinal study with structured self-administered mailed questionnaires at 1, 4, 8 weeks postpartum among a population-based sample	491	British Columbia	Breastfeeding mothers	Early BF attrition		+	(self-efficacy)			BSES-SF identified mothers at risk of prematurely discontinuing breastfeeding
Piper et al 1996 (47)	National Maternal-Infant Health Survey (1988) data with representative random sampling and postpartum questionnaire	2372	National, US	Breastfeeding women	BF duration (> 6 mo)				Intention +		Women more likely to breastfeed > 6 mo if fully breastfed during 1 st month postpartum, were nonsmokers, higher parity, consistent with intent, participated in childbirth education classes, and delayed return to work after delivery.
Khoury et al 2005 (26)	Cohort study with self-administered questionnaire via mail and telephone follow-up	733	Mississippi, US	Postpartum women receiving Medicaid	BF initiation (less)	+	0	(embarrassment)	+	Knowledge +	

Dodgson et al 2003 (37)	Prospective longitudinal design with Minnesota Infant Feeding Questionnaire (MIFQ). In-person interview during post-partum hospitalization; 1,3,6,9,12+ telephone follow-ups.	209	Hong Kong	First-time mothers who decided to breastfeed.	BF duration	+	+	+	Intention +	2 of 3 models based in TPB (1 strict; 2 adapted with perceived control and restricted only to employed mothers) indicated that sub-scales (Antecedent Index related to attitudes/behaviors; Breastfeeding Difficulties Index, Proximity Index) significantly predicted breastfeeding duration.
Duckett et al 1998 (38)	Cohort recruited at large private hospital. In-person interview during post-partum hospitalization; 1,3,6,9,12+ telephone follow-ups.	602	Midwest, US	First-time mothers	BF duration	+	(employed)		Intention + (homemakers); Knowledge + (employed)	Attitudes toward breastfeeding, attitudes toward bottle-feeding, perceived behavioral control all associated with intention. Attitudes associated with outcomes in all sub-analyses. Perceived behavioral control was strongly associated with specific control beliefs in each group. In addition, referent beliefs and attitude toward breast-feeding were significant predictors of perceived behavioral control in all three groups.
					BF intention	+	+			
Manstead et al 1983 (53)	Cohort with attitudes, subjective norms, intentions assessed in 3 rd trimester of pregnancy; behavior at 6 weeks post-partum self-reported.				Breastfeeding duration	+		+	Intention +	Attitudes predict infant-feeding behavior, and previous behavior of multiparous mothers independently/significantly explained variation in their behavioral intentions. Differential attitude score (breast-feeding attitude score minus bottle-feeding attitude score) was significantly associated with intention.
					Intention (for future child)	+		+		
Janke 1992 (31)	Prospective cohort recruited and interviewed during post-partum hospitalization; 6 & 16 week follow-up.	228, 157	US	Mothers	BF attrition	+	+	+		Attitudes (regarding breastfeeding and formula feeding), professional support, and perceived control over breastfeeding challenges relate to early breastfeeding attrition.
Janke 1994 (32)	Prospective cohort recruited and interviewed during post-partum hospitalization; 8 week follow-up.	201	US	Post-partum mother planning to breastfeed at least 8 weeks.	BF attrition	+	+	+		Early attrition associated with less (social and professional) breast-feeding support, believing breast-feeding was difficult, and seeing more advantages to formula instead of breast-feeding.
Wambach 1997 (39)	Convenient sample with structured interviews during last 6 weeks of pregnancy & 4-6 weeks post-partum	251	Midwest, US	Women ante- and post-natally	BF intention	+	+			Prenatal attitudes & PBC predicted intentions (R2 = 0.23).
					BF duration				Intention +	Intentions weakly predicted duration (R2 = 0.04)
O'Campo et al 1992 (40)	Recruitment from 5 Baltimore hospitals. Prenatal interview in 3 rd trimester; follow-up interviews at 7 days & 8 months post-partum, all by phone.	198	Maryland, US	Urban breastfeeding women	BF duration	+	+	+	Intention +	5 factors predictive of breastfeeding duration: anticipated length of breastfeeding, normative beliefs, maternal confidence, social learning, and behavioral beliefs about breastfeeding. 6 other factors considered, but not significantly associated.

Cross-Sectional Studies										
Mitra et al 2004 (49)	Cross-sectional study with structured questionnaire and convenience sampling	694	Mississippi, US	WIC pregnant women	BF intention	+	+	+	Knowledge +	Predictors on intentions included: fewer children, past breast-feeding experience, and higher scores on the indices of breastfeeding knowledge, self-efficacy, and social support
Chatman et al 2004 (42)	Cross-sectional study with pretested questionnaire	599	Saint Ann, Jamaica	Mother-infant dyads	EBF	0			Knowledge 0	No difference between attitudes and knowledge of EBF and non-EBF. Male partner's role as primary income significantly predicted EBF.
Humphreys et al 1998 (54)	Cross-sectional study with self-administered questionnaire and convenience sampling	1001	Georgia, US	High-risk pregnant women	BF intention	+	+	+		Basic correlations between constructs and breastfeeding intention.
Dusdieker et al 1985 (55)	Cross-sectional study with self-administered questionnaire via mail among eligible women from 4 pediatric practice sites	157	Midwest, US	Primigravida women either breast- or bottlefeeding infants since birth	BF initiation (less)	+	(beliefs & worries)			Multivariate analysis indicated beliefs, worries about breastfeeding, and education predicted initiation.
Ekwo et al 1984 (41)	Cross-sectional study with self-administered questionnaire among eligible women from 4 pediatric practice sites at 8 months after delivery	81	Midwest, US	Primigravida women with newborn infants	BF duration (shorter)	+	(worries & difficulties)			Maternal perception of difficulties with breastfeeding when returning to work, total family income, and worries about demands of breastfeeding all related to shorter breastfeeding duration.
Cleveland et al 2005 (BPEBI) (56)	Cross-sectional study with self-administered questionnaire mailed to random sample of female university/graduate students (69% response rate)	479	West Virginia, US	Women at a university (age 17-59)	EBF at 8 weeks postpartum			+	(self-efficacy)	Construct validity supported by the explanatory power of personal efficacy beliefs to exclusive breastfeeding during the early weeks after birth
Qualitative Studies										
Arts et al 2011(57)	Qualitative assessment with focus group discussions	342	4 provinces (Gaza, Tete, Zambezia, Nampula) & Maputo City, Mozambique	Mothers, family members of infants	BF initiation & EBF (less)			+		
Bai et al 2009(58)	Qualitative open-ended questionnaire	25	Indiana, US		EBF at 6 months	+	+	+		Participants: 1) value emotional and health benefits of continued EBF for 6 months; 2) feel approval from family and friends but disapproval from society; 3) view health professional's position as positive and negative

Next Steps

Gaps in Literature

While a number of studies have investigated the underlying psychosocial factors relating to breastfeeding behaviors, there are few representative studies among women in developing countries. Additionally, many focus on breastfeeding initiation and duration, which are less critical issues in Bangladesh compared to EBF. Little is known about prenatal maternal attitudes, self-efficacy, and psychosocial factors that influence EBF in a rural Bangladesh context.

Policy Context in Bangladesh

In light of invested financial resources and public policy efforts to improve IYCF in Bangladesh, understanding the determinants of early EBF attrition remains a key issue, in order to effectively address malnutrition and related consequences. Through the past several decades, Bangladesh has supported appropriate breastfeeding practices through national regulatory policy (Ordinance XXXIII on Regulation of Breastmilk Substitutes, 1984), campaigns (1989), declarations (Dhaka Declaration in 1991), and programs (National Nutrition Program in 1995). Recently the Ministry of Health and Family Welfare developed and adopted a national IYCF strategy in 2007, which specifies goals for breastfeeding within the first hour, EBF, complementary breastfeeding.(59) BFHI is the primary national strategy for breastfeeding promotion. However since approximately 90% of births are home deliveries,(13) health care facility-based breastfeeding promotion may have limitations.

Literature Review References

1. American Academy of Pediatrics. Breastfeeding and the Use of Human Milk. *Pediatrics* 1997;100(6):1035-9.
2. American Academy of Pediatrics. Breastfeeding and the Use of Human Milk. *Pediatrics* 2005;115:496-506.
3. American Academy of Pediatrics. Breastfeeding and the Use of Human Milk. *Pediatrics* 2012;129:e827-e41.
4. World Health Organization. Indicators for assessing infant and young child feeding practices (Part I: Definitions): conclusions of a consensus meeting held 6–8 November 2007 in Washington D.C., USA. Geneva: WHO, 2008.
5. Kramer MS, Kakuma R. The optimal duration of exclusive breastfeeding: a systematic review. *Adv Exp Med Biol* 2004;554:63-77.
6. World Health Organization. Exclusive breastfeeding for six months best for babies everywhere. Geneva: WHO, 2011.
7. Arifeen S, Black RE, Antelman G, et al. Exclusive breastfeeding reduces acute respiratory infection and diarrhoea deaths among infants in Dhaka slums. *Pediatrics* 2001;108.
8. Lamberti LM, Fischer Walker CL, Noiman A, et al. Breastfeeding and the risk for diarrhea morbidity and mortality. *BMC Public Health* 2011;11(Suppl 3):S15.
9. World Health Organization. World Health Statistics 2011. Geneva: WHO, 2011.
10. National Institute of Population Research and Training (NIPORT), Mitra and Associates, Macro International. Bangladesh Demographic and Health Survey 2007. Dhaka and Calverton: NIPORT, Mitra and Associates, and Macro International, 2009.
11. Bangladesh Bureau of Statistics (BBS) and UNICEF. Bangladesh Multiple Indicator Cluster Survey, Progotir Pathey 2006. Dhaka: BSS and UNICEF, 2007.

12. Bangladesh Bureau of Statistics (BBS) and UNICEF. Child and Mother Nutrition Survey of Bangladesh 2005. Dhaka: BBS and UNICEF, 2007.
13. National Institute of Population Research and Training (NIPORT), Mitra and Associates, Macro O. Bangladesh Demographic and Health Survey 2004. Dhaka and Calverton: National Institute of Population Research and Training, Mitra and Associates, and ORC Macro, 2005.
14. National Institute of Population Research and Training (NIPORT), Mitra and Associates, Macro O. Bangladesh Demographic and Health Survey 1999-2000. Dhaka and Calverton: National Institute of Population Research and Training, Mitra and Associates, and ORC Macro, 2001.
15. Mitra SN, Al-Sabir A, Cross AR, et al. Bangladesh Demographic and Health Survey 1996-1997. Dhaka and Calverton: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International Inc, 1997.
16. Mitra SN, Al-Sabir A, Cross AR, et al. Bangladesh Demographic and Health Survey 1993-1994. Dhaka and Calverton,: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International Inc, 1994.
17. World Health Organization. WHO Global Data Bank on Infant and Young Child Feeding (IYCF): Bangladesh. Geneva: WHO, 2010.
18. Haider R, Ashworth A, Kabir I, et al. Effect of community-based peer counsellors on exclusive breastfeeding practices in Dhaka, Bangladesh: a randomised controlled trial. *Lancet* 2000;356(9242):1643-7.
19. Ajzen I. The Theory of Planned Behavior. *Organ Behav Hum Decis Process* 1991;50:179-211.
20. Ajzen I. Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *J Appl Soc Psychol* 2002;32:665-83.

21. Armitage C, Conner M. Efficacy of the Theory of Planned Behavior: A meta-analytic review. *Br J Soc Psychol* 2001;40:471-99.
22. Dennis CL. Breastfeeding initiation and duration: a 1990—2000 literature review. *Journal of Obstetrics, Gynecology & Neonatal Nursing* 2002;32(6):734-44.
23. Li R, Darling N, Maurice E, et al. Breastfeeding Rates in the United States by Characteristics of the Child, Mother, or Family: The 2002 National Immunization Survey. *Pediatrics* 2005;115:e31.
24. Thulier D, Mercer J. Variables Associated with Breastfeeding Duration. *Journal of Obstetrics, Gynecology & Neonatal Nursing* 2009;38:259-68.
25. Leff EW, Jefferis SC, Gagne MP. The Development of the Maternal Breastfeeding Evaluation Scale. *J Hum Lact* 1994;10(2):105-11.
26. Khoury AJ, Moazzem SW, Jarjoura CM, et al. Breast-feeding initiation in low-income women: Role of attitudes, support, and perceived control. *Women's Health Issues* 2005;15:64-72.
27. Dick MJ, Evans ML, Arthurs JB, et al. Predicting early breastfeeding attrition. *J Hum Lact* 2002;18:21-8.
28. Evans ML, Dick MJ, Lewallen LP, et al. Modified breastfeeding attrition prediction tool: Prenatal and postpartum tests. *J Perinat Educ* 2004;13:1-8.
29. Gill SL, Reifsnider E, Lucke JF, et al. Predicting breast-feeding attrition: Adapting the breast-feeding attrition prediction tool. *J Perinat Neonatal Nurs* 2007;21:216-24.
30. Lewallen LP, Dick MJ, Wall Y, et al. Toward a clinically useful method of predicting early breast-feeding attrition. *Appl Nurs Res* 2006;19:144-8.
31. Janke JR. Prediction of Breast-Feeding Attrition: Instrument Development. *Appl Nurs Res* 1992;5(1):48-53.
32. Janke JR. Development of the Breast-Feeding Attrition Prediction Tool. *Nurs Res* 1994;43(2):100-4.

33. Mossman M, Heaman M, Dennis CL, et al. The influence of adolescent mothers' breastfeeding confidence and attitudes on breastfeeding initiation and duration. *J Hum Lact* 2008;24:268-77.
34. Scott JA, Binns CW, Oddy WH, et al. Predictors of Breastfeeding Duration: Evidence from a Cohort Study. *Pediatrics* 2006;117:e646.
35. Lawson K, Tulloch MI. Breastfeeding duration: prenatal intentions and postnatal practices. *J Adv Nurs* 1995;22:841-9.
36. De La Mora A, Russell DW. The Iowa Infant Feeding Attitude Scale: Analysis of reliability and validity. *J Appl Soc Psychol* 1999;29(11):2362-80.
37. Dodgson JE, Henly SJ, Duckett L, et al. Theory of Planned Behavior-Based Models for Breastfeeding Duration Among Hong Kong Mothers. *Nurs Res* 2003;52(3):148-58.
38. Duckett L, Henly S, Avery M, et al. A theory of planned behavior based structural model for breast-feeding. *Nurs Res* 1998;47:325-35.
39. Wambach K. Breastfeeding Intention and Outcome: A Test of the Theory of Planned Behavior. *Res Nurs Health* 1997;20:51.
40. O'Campo P, Faden RR, Gielen AC, et al. Prenatal Factors Associated with Breastfeeding Duration: Recommendations for Prenatal Interventions. *Birth* 1992;19(4):195-201.
41. Ekwo EE, Dusdieker LB, Booth B, et al. Psychosocial factors influencing the duration of breastfeeding by primigravidas. *Acta Paediatr* 1984;73:241-7.
42. Chatman L, Hasumi S, Roofe M, et al. Influence of knowledge and attitudes on exclusive breastfeeding practice among rural Jamaican mothers. *Birth* 2004;31(4):265-71.
43. Blyth R, Creedy D, Denis C, et al. Effect of Maternal Confidence on Breastfeeding Duration: An application of Breastfeeding Self-efficacy Theory. *Birth* 2002;29(4):278.
44. Dennis CL. The Breastfeeding Self-Efficacy Scale: Psychometric assessment of the short form. *J Obstet Gynecol Neonatal Nurs* 2003;32(6):734-44.

45. Dennis CL, Faux S. Development and psychometric testing of the Breastfeeding Self-Efficacy Scale. *Research in Nursing and Health* 1999;22:399-409.
46. Janke JR. Breastfeeding duration following cesarean and vaginal births. *J Nurse Midwifery* 1988;33:159-64.
47. Piper S, Parks PL. Predicting the duration of lactation: Evidence from a national survey. *Birth* 1996;23:7-12.
48. Wambach KA, Aaronson L, Breedlove G, et al. A Randomized Controlled Trial of Breastfeeding Support and Education for Adolescent Mothers. *West J Nurs Res* 2011;33:486-505.
49. Mitra AK, Khoury AJ, Hinton AW, et al. Predictors of Breastfeeding Intention Among Low-Income Women. *Matern Child Health J* 2004;8(2):65-70.
50. Anderson AK, Damio G, Young S, et al. A randomized trial assessing the efficacy of peer counseling on exclusive breast-feeding in a predominantly Latina low-income community. *Archives of Pediatric and Adolescent Medicine* 2005;159:836-41.
51. Bonuck KA, Trombley M, Freeman K, et al. Randomized, controlled trial of a prenatal and postnatal lactation consultant intervention on duration and intensity of breastfeeding up to 12 months. *Pediatrics* 2005;116:1413-26.
52. Chapman DJ, Damio G, Young S, et al. Effectiveness of breastfeeding peer counseling in a low-income, predominantly Latina population: A randomized controlled trial. *Archives of Pediatric and Adolescent Medicine* 2004;158:897-902.
53. Manstead ASR, Proffitt C, Smart JL. Predicting and Understanding Mothers' Infant-Feeding Intentions and Behavior: Testing the Theory of Reasoned Action. *Journal of Personality and Social Psychology* 1983;44(4):657-71.
54. Humphreys A, Thompson NJ, Miner KR. Assessment of breastfeeding intention using the Transtheoretical Model and the Theory of Reasoned Action. *Health Education Research* 1998;13(3):331-41.

55. Dusdieker LB, Booth BM, Seals BF, et al. Investigation of a model for the initiation of breastfeeding in primigravida women. *Social Science and Medicine* 1985;20:695-703.
56. Cleveland AP, McCrone S. Development of the breastfeeding personal efficacy beliefs inventory: A measure of women's confidence about breastfeeding. *Journal of Nursing Measurement* 2005;13(2):115-27.
57. Arts M, Geelhoed D, Schacht CD, et al. Knowledge, beliefs and practices regarding exclusive breastfeeding of infants younger than 6 months in Mozambique: a qualitative study. *Journal of Human Lactation* 2011;27(1):25-32.
58. Bai YK, Middlestadt SE, Peng CYJ, et al. Psychosocial factors underlying the mother's decision to continue exclusive breastfeeding for 6 months: an elicitation study. *J Hum Nutr Diet* 2009;22:134-40.
59. Ministry of Health and Family Welfare. Infant and Young Child Feeding (IYCF) National Plan of Action, 2009-2011. Dhaka: Government of Bangladesh, Institute of Public Health Nutrition (IPHN) DGoHS, and Ministry of Health and Family Welfare.

Chapter II: Manuscript Draft

Maternal prenatal attitudes and postnatal breastfeeding behaviors in rural Bangladesh

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Abstract

Objective: We assessed the relationships between psychosocial constructs (maternal intention, attitudes, self-efficacy, breastfeeding knowledge) at 7 mo gestation and exclusive or full breastfeeding at 3 mo postpartum.

Design: Prospective longitudinal cohort study with structured home interviews during pregnancy and 3 mo after delivery.

Setting: Two rural sub-districts (Karimganj; Katiadi) of Kishoreganj district, Bangladesh.

Subjects: Mother-infant dyads.

Results: Over 75% of 1470 pregnant women intended to exclusively breastfeed (EBF). Maternal positive attitudes, self-efficacy, and knowledge about breastfeeding were positively associated with intentions to EBF during the 3rd trimester of pregnancy (all $p < 0.05$). All mothers reported initiating breastfeeding, and nearly all children were still breastfed at 3 mo. According to 24-hour dietary recalls, we categorized 639 (43.5%) infants as EBF (47.2% among mothers with intention; 31.0% no intention), and 389 (26.5%) infants as predominantly breastfed (PBF) (25.2% intention; 30.7% no intention) at 3 mo. Prenatal maternal intention to EBF was associated with EBF (aOR 1.35, 95% CI: 1.02-1.80) and full breastfeeding (aOR 1.29, 95% CI: 0.98-1.70) at age 3 mo, adjusting for covariates. EBF and full breastfeeding at age 3 mo were not associated ($p > 0.05$) with any other prenatal maternal psychosocial constructs examined, controlling for covariates.

Conclusions: Despite expressed maternal intentions to exclusively breastfeed during pregnancy and universal breastfeeding initiation, prevalences of both exclusive and full breastfeeding at 3 mo remain lower than WHO recommendations. Our findings indicate associations between EBF intention and postnatal breastfeeding behaviors, suggesting the importance of prenatal intention and psychosocial factors in supporting optimal infant feeding behaviors.

Introduction

Globally over 55% of infant deaths from diarrheal disease and acute respiratory infections are preventable by appropriate breastfeeding and complementary feeding.(1) Suboptimal infant feeding and endemic malnutrition contribute to mortality and morbidity, as well as detrimental long-term developmental consequences, poorer educational performance, and productivity.(2-7)

Although potential benefits and breastfeeding recommendations are widely recognized, EBF remains low in both developed and developing countries. Bangladeshi government policies and non-profit programs have targeted inappropriate infant and young child feeding practices, addressing globally ranked malnutrition indicators (including the 41.3% of underweight children under 5).(8) Yet national prevalence of exclusive breastfeeding through 6 months still has not improved for over a decade, despite nearly universal breastfeeding initiation.(9) There is a need to understand the etiology of early EBF attrition, particularly the role of modifiable risk factors.

Maternal psychosocial factors and intentions to breastfeed have been associated, to varying extents, with infant feeding behaviors in previous literature. A nationally representative United States (US) study among 2372 women found that intentions to partially or fully breastfeed predicted breastfeeding duration (> 6 months).(10) Similarly, in a cohort of 566 Australian women, intention to breastfeed was also positively associated with breastfeeding duration.(11) Among 733 Medicaid recipients in Mississippi, attitudes about benefits and barriers to breastfeeding, health care systems, as well as social support were associated with breastfeeding initiation.(12)

Over the past two decades, many studies have incorporated the Theory of Planned Behavior (TPB), a general psychological model for human behavior, as a theoretical framework to understand determinants of breastfeeding behaviors. According to the TPB, attitudes, subjective norms, and perceived behavioral control predict intention to perform a certain behavior; intention then predicts the behavior.(13, 14) In a meta-analytic review of 185

independent studies, 27% and 39% of variances in behavior and intention were accounted for by the TPB framework.(15)

Among studies assessing maternal psychosocial risk factors relating to suboptimal breastfeeding, sample populations of women have been diverse, yet few are among women in under-resourced countries. Most studies focus on breastfeeding duration (attrition) and initiation; fewer center on EBF.

Our study objective was to further understand the associations between prenatal maternal psychosocial constructs, intentions, and EBF behaviors at 3 months among women and their infants in rural northeastern Bangladesh. In light of the nearly universal breastfeeding initiation, our primary outcomes of interest were exclusive and full breastfeeding.

Methods

We conducted a prospective observational study embedded in a larger study of community-based nutrition and infant and young child feeding (IYCF) initiative (“*Akhoni Shomay*” - *Window of Opportunity*, CARE-Bangladesh). In the program intervention sub-district (Karimganj), pregnant women and mothers with newborn infants were eligible to voluntarily participate in behavior change communication activities and receive multiple micronutrient supplementation. A non-adjacent sub-district (Katiadi) in the same district (Kishoreganj) served as a control.

Located approximately 117 km from Dhaka, Karimganj and Katiadi are rural agrarian sub-districts with similar socioeconomic and demographic characteristics. Approximately 320,000 individuals in 70,000 households reside in Karimganj; in comparison, Katiadi has a population of 350,000 individuals in 75,000 households. Average household sizes are similar. Children under 5 years represent 17% of the total population in Karimganj, and 15% in Katiadi. Both sub-districts are located in the low-lying *Haor* region of northeastern Bangladesh, which regularly experiences flooding and food insecurity. Several government and non-profit efforts,

including the European Union's "Food Security for the Ultra Poor" and CARE-Bangladesh women's empowerment programs, have centered on Karimganj.

Study participants

Study participants included mother-infant dyads in Karimganj and Katiadi sub-districts, from whom data were collected at approximately 7 gestational months into pregnancy and 3 months after birth between January and December 2011. Recruitment and enrollment of pregnant women occurred in six randomly selected unions from each sub-district (11 total unions in Karimganj; 10 in Katiadi). In each selected union, pregnant women were identified through the assistance of local non-profit organizations. Women between 15-49 years of age in their third pregnancy trimester (26-32 weeks gestational age), and permanently residing in households of selected sub-districts were considered eligible study participants. Exclusion criteria for women included: residing less than 6 months in Karimganj or Katiadi at study enrollment, and any known or suspected chronic or congenital diseases. Sixteen hundred women were interviewed during their third trimester of pregnancy in two data collection waves.

Of the 1600 women, 1598 gave birth to 1607 infants, including 9 pairs of twins. The two remaining women did not give birth within a biologically plausible time period. Exclusion criteria expanded to include: infant deaths; children with any known or suspected chronic or congenital diseases or physical deformities associated with growth problems. Fourteen hundred and seventy infant-mother pairs (92% of 1600 total enrolled) are included in this analysis, due to loss-to-follow up from infant death, migration, refusal to participate, and other eligibility-related reasons.

Study protocol approval was granted by the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) Ethical Review Committee. Prior to study enrollment, eligible women were verbally informed about study objectives as well as protocol; only those who willingly signed participation consents were enrolled and interviewed.

Data collection

Interviews

A team of 20 trained interviewers (11 male; 9 female) conducted structured home interviews during pregnancy at 7 months gestation and 3 months after delivery. Generally the same enumerator did not interview the same study participant twice. Expecting regular seasonal migration of some Kishoreganj residents due to flooding and employment opportunities, interviewers maintained contact with study participants via cellular phones, scheduling home visits in advance as necessary. Nearly every study participant either owns or has access to a cellular phone.

Pregnancy Questionnaire

The pregnancy questionnaire included questions regarding demographic (e.g. family size, occupation, education); household (e.g. household food security, home building materials, wealth index); and maternal health (e.g. previous births, prenatal care) characteristics. Intention to exclusively breastfeed was assessed through an open-ended question regarding how the mother planned to feed her infant at 3 months after birth.

Adapted from the Breastfeeding Attrition Prediction Tool (BAPT),⁽¹⁶⁾ 16 attitudinal items assessed positive and negative affects toward breastfeeding. Questions included infant nutrition related to EBF; and inconveniences and difficulties of EBF for the mother (3- or 5-point Likert scale).⁴ Negative affect items were reverse coded for analysis. Factor analysis (FA) with orthogonal (Kaiser) varimax rotation on the 16 items extracted 3 factors, accounting for 70.5% of total variance (30.9%, 23.2%, and 16.3%) in item scores. 15 attitudinal items had factor loadings >0.5. An index was created as a simple sum of these 15 items (0-75 scale).

Six items relating to perceived control and confidence of mothers regarding breastfeeding, based on the BAPT and other validated instruments, were included in the

⁴ Confidence and self-efficacy questions used Likert scales of 1-3 in Cohort 1. In order to better document variability of responses, the same questions used Likert scales of 1-5 in Cohort 2. For factor analysis and to report means across both cohorts, Cohort 1 responses were re-coded as 1,3,5.

pregnancy questionnaire. All 6 self-efficacy questions were predictive of overall variance based on FA loadings, and included in the index. One factor was extracted from FA with varimax rotation, which accounted for 77.4% of total variance. Simple sums were created as a self-efficacy construct (0-30 scale).

Also modified from the BAPT, 5 questions were included about perceived opinions of family (husband, mother, mother-in-law, sister) and health professionals (doctor) regarding infant feeding (e.g. EBF versus complementary feeding). FA loadings indicated that none significantly predicted variance; therefore a subjective norms construct was not included in regression analysis.

During pregnancy, questions assessed maternal knowledge about optimal initiation, frequency, duration of breastfeeding, as well as sufficient milk supply. A simple sum index (0-6 scale) was created from 6 items.

3-Month Questionnaire

Interviews at 3 months included data collection on infant diet (by 24-hour and since-birth recalls). Liquid and food categories were derived from standard Bangladesh Demographic and Health Surveys (BDHS 2007) categories.(17)

Reported breastfeeding practices (EBF, PBF, full) were categorized according to UNICEF and WHO definitions.(18) Our definition of prelacteal feeds was similar to most other definitions, i.e. consumption of foods and liquids aside from breast milk (including honey, mustard oil) prior to exclusive breastfeeding initiation. Although there is no consensus about the exact standard “allowable” length of time after birth for prelacteals, in this study we considered any non-breast milk feeds consumed during the first 4 days after birth as prelacteals.

Statistical Analysis

Descriptive statistics were reported as means (and standard deviations) or proportions. Crude associations between categorical variables were assessed by Pearson’s chi-squared tests, or bivariate regressions. We used multivariate logistic regression analyses to estimate associations

between breastfeeding at 3 months (exclusive, full) and prenatal psychosocial constructs (simple sum scores dichotomized at median), adjusting for covariates. As none of the two- and three-way interactions among sub-district, data collection wave, and the individual maternal psychosocial constructs for breastfeeding intention, attitudes, self-efficacy, and knowledge was significant at a Bonferroni-corrected $p < 0.05$, we conducted first-order regressions with adjustment for sub-district and wave.

We adjusted for covariates: maternal age (15-25, 26-35, >36 years), previous births (0, 1, >1), socioeconomic status (1-6, 7-12, 13-22 household assets), maternal literacy, any prenatal care for the current pregnancy, wave, and sub-district. Inclusion of these potential confounders was based on *a priori* knowledge from previous literature that establishes associations between each covariate separately with both psychosocial factors and breastfeeding behaviors. Additional potential covariates (including food security questions about borrowing food or cash to others; fulfilling meals during the past month) were assessed by backwards selection, however none were significant predictors of breastfeeding behaviors or confounders of any other covariates. Analyses were performed using Stata (StataCorp. 2009. Stata Statistical Software: Release 10.1. College Station, TX, USA: StataCorp LP).

Results

Mothers and Households in Karimganj and Katiadi

On average, mothers were 24.9 years old (SD 5.8), previously had 1.2 children (SD 0.8), and a household wealth index of 8.8 (SD 3.4) during the pregnancy interview. In terms of mean age, parity, and household wealth index, mothers did not differ by prenatal EBF intention (Table 1). 63.1% of the study population was literate, and higher proportions of women intending to EBF were literate (64.8%) relative to those not intending (57.1%; $p < 0.05$). Reported prenatal care during pregnancy were slightly higher among women with EBF intentions (38.6%), compared to those without (31.6%) ($p < 0.05$).

Prenatal Maternal Psychosocial Constructs

During the third trimester of pregnancy, 77.1% of mother intended to EBF their infants (Table 3). The mean maternal attitudes during pregnancy was 55.7 (SD 9.2) on a 75-point scale. Mean self-efficacy was 26.6 (SD 3.4) on a 30-point scale. Breastfeeding knowledge was low (mean 3.4 on a 6-point scale, SD 1.3). Prenatal attitudes and self-efficacy (both $p < 0.05$), although not breastfeeding knowledge ($p > 0.05$), were significantly associated with maternal EBF intentions in rural Bangladesh, adjusting for sub-district, maternal age, prenatal care, household wealth index, and timing of decision to breastfeed.(19)

Infant Feeding from Birth to 3 Months

During their first 4 days of life, many infants received prelacteal feeds (juices or high-sugar liquids 27.6%, water 10.4%, animal milk 3.0%, infant formula 2.5% between 0-3 days). All mothers initiated breastfeeding, and at the 3-month interview, nearly all (99.7%) mothers reported giving their infants breast milk in the previous 24 hours (Table 2). At every time point (0-3 days, 4 days, 2 weeks, 1 month, 2 months, 3 months), 1% or fewer infants were not receiving any breast milk (Fig 1).

At 3 months, 43.5% of the infants were EBF, 26.5% were PBF, and 70.0% were fully breastfed (Table 2). Between birth and 3 months, EBF proportions peaked at 4 days after birth (77.2% overall) (Fig 1). EBF prevalence increased between 2 and 3 months. Among infants not EBF at 3 months, the majority consumed other liquids (water 44.1%, infant formula 12.1%, animal milk 11.8%, juices or high-sugar liquids 3.3%), with few infants consuming any soft, semi-solid, or solid foods (<5.0%).

Higher proportions of infants were EBF at 3 months among mothers with prenatal intentions (47.2%) compared to those without (31.0%) ($p < 0.05$). Similarly at 4 days after birth, a higher proportion of infants of intending mothers (80.1%) were EBF, compared to those of non-intending mothers (67.6%) ($p < 0.05$). In contrast, a higher proportion of infants with non-

intending mothers (30.7%) were predominantly breastfed at 3 months relative to those of intending mothers (25.2%) ($p < 0.05$).

Prenatal Maternal EBF Intention and EBF at 3 Months

Women with intention to EBF during pregnancy were more likely to EBF at 3 months (aOR: 1.40, 95% CI: 1.06-1.85), adjusting for sub-district, data-collection wave, demographic and socioeconomic factors (Table 4).

Prenatal Maternal Attitudes, Self-Efficacy, Knowledge and EBF at 3 Months

Maternal attitudes about breastfeeding during pregnancy were not associated with EBF at 3 months (aOR: 1.12, 95% CI: 0.90-1.41), controlling for sub-district, wave, demographic and socioeconomic factors (Table 4). Women with strong self-efficacy during pregnancy were not more or less likely to EBF at 3 months, compared to those with weak self-efficacy (aOR: 1.11, 95% CI: 0.83-1.50), adjusting for sub-district, wave, demographic and socioeconomic factors. Mothers who correctly answered more questions about breastfeeding knowledge in pregnancy were not more or less likely to EBF at 3 months, relative to those who answered fewer correctly (aOR: 1.21, 95% CI: 0.96-1.51), controlling for sub-district, wave, demographic and socioeconomic factors.

When simultaneously considered, prenatal maternal attitudes, self-efficacy, and knowledge remained not associated with EBF at 3 months (aOR: 1.09, 95% CI: 0.86-1.38; aOR: 1.07, 95% CI: 0.79-1.45; aOR: 1.19, 95% CI: 0.95-1.49 respectively), adjusting for sub-district, wave, demographic and socioeconomic indicators (Table 4).

Prenatal Maternal Attitudes, Self-Efficacy, Knowledge, Intentions, and EBF at 3 Months

Mothers who intended to EBF were more likely to EBF at 3 months (aOR: 1.35, 95% CI: 1.02-1.80), adjusting for other psychosocial factors (prenatal attitudes, self-efficacy, breastfeeding knowledge) as well as demographic and socioeconomic covariates (maternal age, previous births, household wealth index, maternal education level, prenatal care during pregnancy, sub-district, wave; Table 4). Attitudes, self-efficacy, and knowledge were not associated with EBF at 3

months (aOR: 1.06, 95% CI: 0.84-1.34; aOR: 1.03, 95% CI: 0.76-1.40; aOR: 1.16, 95% CI: 0.92-1.45 respectively), controlling for intention, sub-district, wave, demographic and socioeconomic covariates.

Prenatal Maternal Attitudes, Self-Efficacy, Knowledge, and Full Breastfeeding at 3 Months

Given that 26.5% of infants were PBF, we additionally assessed full breastfeeding at 3 months as the dependent variable (Table 4). Mothers who intended to EBF were more likely to fully breastfeed at 3 months (aOR: 1.29, 95% CI: 0.98-1.70), adjusting for covariates. Among the other prenatally-assessed maternal psychosocial constructs, self-efficacy was most strongly associated with full breastfeeding at 3 months (aOR: 1.23, 95% CI: 0.89-1.70). Attitudes and breastfeeding knowledge were not predictive of full breastfeeding (aOR: 1.01, 95% CI: 0.79-1.28; aOR: 1.09, 95% CI: 0.86-1.39 respectively).

Discussion

Breastfeeding Initiation and Exclusivity

We observed high breastfeeding initiation and less than 45% EBF at 3 months age in rural Bangladesh; these estimates are similar to national statistics. According to the WHO Global Data Bank on Infant and Young Child Feeding, the national prevalence of breastfeeding initiation has remained over 96% since the 1990s;(9) the national prevalence of EBF under 6 months is 42.9%.(9) As EBF prevalence generally declines as infants age, this suggests that EBF at 6 months in Karimganj and Katiadi may be lower than the national average.

However, we acknowledge the difficulty in comparing EBF prevalence in our sample to national statistics as all infants in our sample are approximately 3 months old. Given that EBF attrition varies significantly, we cannot necessarily infer that patterns in declining EBF proportions are similar. Additionally, in the past two decades, national surveys have reported a wide range of EBF prevalence (36.2-58.4%).(9) Although current national recommendations are to EBF until 6 months, previous recommendations in the early 2000s were only until 5 months of

age.(20) This modified definition likely accounts for some variability of reported EBF prevalence.

Maternal Prenatal Psychosocial Constructs and Knowledge

Our results indicated that some but not all of the psychosocial factors we assessed were predictive of intention to EBF among rural Bangladeshi women, which is similar to previous studies in other settings that consider attitudes(21, 22) and knowledge(23) in relation to breastfeeding intentions.

We found that prenatal attitudes, self-efficacy, and knowledge were not predictive of EBF or full breastfeeding at 3 months of age. On average, women had relatively strong self-efficacy (26.6 on a 0-30 scale); the weak predictive power of breastfeeding behaviors may be related to the low variance (SD 3.4). Earlier studies found that attitudinal indices did not predict breastfeeding duration(24, 25) or exclusivity.(26) Some literature suggests that maternal confidence is not predictive of breastfeeding behavioral outcomes.(12, 24, 25, 27) Similarly, a study among 599 Jamaican women found no influence of maternal knowledge regarding breastfeeding on EBF.(26)

On the other hand, many studies indicate that attitudes,(11, 16, 21, 22, 27-34) self-efficacy,(16, 22, 28, 29, 32, 33, 35-38) and knowledge(12, 23, 39) are predictive of breastfeeding initiation and duration. Differences from our results could stem from difficulties in comparing across disparate breastfeeding behavioral outcomes, since we report on EBF and full breastfeeding rather than initiation and attrition. Additionally socioeconomic differences need to be accounted for as the majority of studies were among women residing in better-resourced (primarily US) settings.

Compared to other psychosocial factors (attitudes, self-efficacy, subjective norms), relatively fewer studies have assessed the extent to which intention to breastfeed predicts infant feeding behaviors of mothers. Among relevant studies, all found positive associations,(10, 27, 36, 40) which our study findings also indicate.

Theory of Planned Behavior Context

Our multivariate regression models reflected components of the TPB (attitudes, self-efficacy, EBF intention, breastfeeding behaviors). However, we excluded maternal subjective norms due to lack of construct validity in our sample, and included breastfeeding knowledge. While this limits direct comparisons to studies that incorporate all three psychosocial indices in the TPB, our observations are consistent with the TPB conceptual framework in general. We previously showed maternal prenatal breastfeeding attitudes and self-efficacy were positively associated with intentions to EBF during the 3rd trimester of pregnancy ($p < 0.05$).⁽¹⁹⁾ Our findings indicate associations between EBF intention and postnatal breastfeeding behaviors. Further research is needed to assess intention, psychosocial factors, and breastfeeding behaviors while accounting for subjective norms, in a rural Bangladesh context.

Differences between Sub-Districts

Some observed associations differed by sub-district, although the interactions between sub-district and intention or any of the other maternal psychosocial constructs was not significantly predictive of breastfeeding behaviors, according to a Bonferroni-adjusted interaction test. In Karimganj, prenatal EBF intention was positively associated with EBF (aOR 1.83, 95% CI: 1.14-2.92) and full breastfeeding (aOR 2.03, 95% CI: 1.22-3.40) at 3 months. In contrast, among Katiadi women, there are weaker associations with EBF (aOR 1.09, 95% CI: 0.76-1.55) and full breastfeeding (aOR 1.11, 95% CI: 0.80-1.54). With the exception of the association between self-efficacy and full breastfeeding in Karimganj (aOR 1.87, 95% CI: 1.05-3.30), none of the other maternal psychosocial constructs were predictive of breastfeeding behaviors within either sub-district ($p > 0.05$). All other socio-demographic covariates (except data wave collection or prenatal care in some models) were not associated with breastfeeding behaviors in both sub-districts ($p > 0.05$).

Strengths and Limitations

This study had high participation rates (92%), which likely limit participation bias. Efforts were made to minimize cognitive comprehension issues during interviews by acknowledging issues identified in previous literature about differing interpretations of EBF definition and duration.(38, 41) Interviewers asked simple, direct questions about foods and liquids consumed, as well as specified exact times in both days and months. EBF and full breastfeeding categories were created during analysis based on dietary intake, according to consistent breastfeeding definitions.

Survey-based data collection was a potential source of self-report and recall bias. Women may have under-reported negative perceptions and behaviors. A possible explanation for the increase in EBF between 2 and 3 months relates to women increasing ideal breastfeeding behaviors that they predicted would be asked about during the 3-month interview. Accuracy of self-reported dietary recalls relies on mothers correctly remembering dietary consumption of infants at specified times prior to the interview.

Summary

Despite expressed maternal intentions to exclusively breastfeed during pregnancy and universal breastfeeding initiation, prevalences of both exclusive and full breastfeeding at 3 mo remain lower than WHO recommendations. Our findings indicate associations between EBF intention and postnatal breastfeeding behaviors, suggesting the importance of prenatal intention and psychosocial factors in supporting optimal infant feeding behaviors.

**Table 1. Demographic and Household Characteristics
among women during pregnancy in Karimganj and Katiadi^a**

<i>N (%)^c</i>		Overall <i>N = 1470</i>	Intent to EBF^b <i>N = 1134</i>	No Intent to EBF <i>N = 336</i>
Age		24.9 (5.8)	25.0 (5.7)	24.5 (6.1)
Mean				
	15-25	873 (59.4)	666 (58.7)	207 (61.6)
	26-35	527 (35.9)	527 (35.9)	113 (33.6)
	>36	70 (4.8)	54 (4.8)	16 (4.8)
Previous Births	Mean	1.2 (0.8)	1.2 (0.8)	1.2 (0.9)
	0	399 (27.1)	280 (24.7)	59 (17.6)
	1	339 (23.1)	181 (24.7)	158 (21.4)
	>1	732 (49.8)	565 (49.8)	167 (49.7)
Literate		927 (63.1)	735 (64.8)	192 (57.1)
Prenatal Care^d		544 (37.0)	438 (38.6)	106 (31.6)
Household Wealth Index				
	Mean	8.8 (3.4)	9.0 (3.5)	8.4 (3.2)
	1-6	429 (29.2)	320 (28.2)	109 (32.4)
	7-12	805 (54.8)	620 (54.7)	185 (55.1)
	13-22	236 (16.1)	194 (17.1)	42 (12.5)

^a From interview during 3rd trimester of pregnancy (approximately 7 months gestational age) of newborn infant

^b Self-reported prenatal intention to EBF among mothers

^c Except means and standard deviations for continuous measures

^d Any visits to prenatal clinics during pregnancy for newborn infant

**Table 2. Breastfeeding of 3 Month Old Infants
from last 24-Hour and Liquid-Consumption Dietary Recalls^a**

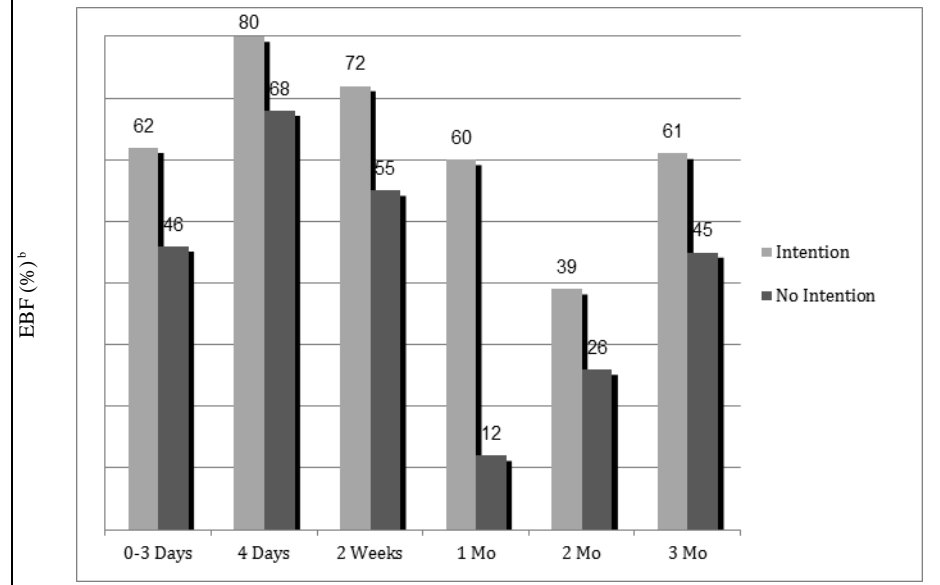
		Overall	Intent to EBF^b	No Intent to EBF
<i>N (%)</i>		<i>N = 1470</i>	<i>N = 1134</i>	<i>N = 336</i>
24 Hour	Only Breast Milk	639 (43.5)	535 (47.2)	104 (31.0)
	Predominant BF (PBF)	389 (26.5)	286 (25.2)	103 (30.7)
	Complementary Fed	826 (56.2)	594 (52.4)	232 (69.1)
	BM + Other Liquids	766 (52.1)	552 (48.7)	214 (63.7)
	BM + Foods	17 (1.2)	13 (1.2)	4 (1.2)
	BM + Foods + Liquids	43 (2.9)	29 (2.6)	14 (4.2)
	No Breast Milk	5 (0.3)	5 (0.4)	0 (0)
Liquid Consumption^c	Only Breast Milk	843 (57.4)	692 (61.0)	151 (44.9)
	PBF	302 (20.5)	215 (19.0)	87 (25.9)
	Complementary Fed	624 (42.5)	439 (38.7)	185 (55.1)
	No Breast Milk	3 (0.2)	3 (0.3)	0 (0)

^a WHO & UNICEF breastfeeding definitions. EBF is not giving the infant any water, liquids aside from breast milk, foods, based on 24-hour dietary recall during the 3-month interview. Predominant breastfeeding is defined as when the predominant source of nourishment is breast milk although the infant may have received water and water-based drinks, fruit juice, oral rehydration salts solutions, drop and syrup vitamins, minerals, medicines, and ritual fluids).

^b Self-reported prenatal intention to EBF among mothers.

^c Based on dietary recalls of liquid consumption since birth. A number of responses were recorded as "Not Applicable", including 431 women at 3 months. Given that over 99% of women reported giving breast milk to their infants according to the 24 hour recall, it was assumed that "Not Applicable" may have been marked by some interviewers for women who were still breastfeeding their infants and therefore recoded as having given breast milk.

**Figure 1. EBF Prevalence from Birth to 3 Months
Among Women With and Without EBF Intention^a**



^a Self-reported prenatal intention to EBF among mothers in Karimganj and Katiadi

^b Based on dietary recalls of liquid consumption since birth.

Table 3. Maternal Intentions to EBF, Attitudes, Self-Efficacy, and Knowledge during Third Pregnancy Trimester^a

	Overall <i>N</i> = 1470	Intent to EBF ^b <i>N</i> = 1134	No Intent to EBF <i>N</i> = 336
<i>N</i> (%)			
EBF Intention	1134 (77.1)	---	---
<i>Mean (SD)</i> ^c			
Positive Attitudes towards Breastfeeding (0-75)	55.7 (9.2)	56.4 (9.4)	53.5 (8.3)
Self-Efficacy (0-30)	26.6 (3.4)	26.7 (3.2)	26.0 (4.0)
Breastfeeding Knowledge (0-6)	3.4 (1.3)	3.6 (1.3)	2.8 (1.4)

^a Based on self-report from mothers during interview at approximately 7 months gestational age

^b Self-reported prenatal intention to EBF among mothers.

^c Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis. Cohort 1 responses were originally in 1-3 Likert scale, and re-coded to 1,3,5 for comparison to Cohort 2 responses in 1-5 Likert scale.

Table 4: Logistic Regressions for Exclusive and Full Breastfeeding at 3 Months in Karimganj and Katiadi ^a

		Reduced Models										Full Model	
		Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI
EBF	Intent to EBF ^b	1.40	(1.06, 1.85)									1.35	(1.02, 1.80)
	Maternal Constructs ^c												
	Positive Attitude Toward Breastfeeding ^d			1.12	(0.90, 1.41)					1.09	(0.86, 1.38)	1.06	(0.84, 1.34)
	Strong Self-Efficacy ^d					1.11	(0.83, 1.50)			1.07	(0.79, 1.45)	1.03	(0.76, 1.40)
Breastfeeding Knowledge							1.21	(0.96, 1.51)		1.19	(0.95, 1.49)	1.16	(0.92, 1.45)
	Goodness of Fit ^e	0.46		0.28		0.14		0.87		0.91		0.96	
Full BF	Intent to EBF ^b	1.34	(1.02, 1.75)									1.29	(0.98, 1.70)
	Maternal Constructs ^c												
	Positive Attitude Toward Breastfeeding ^d			1.08	(0.86, 1.37)					1.03	(0.81, 1.31)	1.01	(0.79, 1.28)
	Self-Efficacy ^d					1.30	(0.95, 1.77)			1.27	(0.92, 1.75)	1.23	(0.89, 1.70)
Breastfeeding Knowledge							1.14	(0.90, 1.44)		1.12	(0.88, 1.42)	1.09	(0.86, 1.39)
	Goodness of Fit ^e	0.15		0.74		0.61		0.50		0.31		0.19	

^a All models additionally control for maternal age, previous births, household wealth index score, maternal literacy, prenatal care during pregnancy, cohort, and subdistrict.

^b Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month Questionnaire).

^c Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to principal components analysis (PCA). Continuous maternal indices dichotomized at median values.

^d Cohort 1 interviews asked respondents to rate attitudes and self-efficacy according to a 1-3 Likert scale. These items were recoded as 1, 3, 5 for comparison to Cohort 2 responses in 1-5 Likert scale.

^e Hosmer & Lemeshow χ^2 p-value

References

1. World Health Organization, United Nations Children's Fund. WHO/UNICEF Global Strategy for Infant and Young Child Feeding. Geneva: WHO, 2003.
2. Horta BL, Bahl R, Martines JC, et al. Evidence on the long-term effects of breastfeeding: systematic review and meta-analyses. Geneva: WHO, 2007.
3. Ip S, Chung M, Raman G, et al. Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries. *Evidence Report/Technology Assessment*. Rockville: Agency for Healthcare Research and Quality, 2007.
4. Arifeen S, Black RE, Antelman G, et al. Exclusive breastfeeding reduces acute respiratory infection and diarrhoea deaths among infants in Dhaka slums. *Pediatrics* 2001;108.
5. Victora CG, Smith PG, Vaughan JP, et al. Infant feeding and deaths due to diarrhea: A case-control study. *Am J Epidemiol* 1989;129:1032-41.
6. Dewey KG, Cohen RJ, Brown KH, et al. Effects of exclusive breastfeeding for four versus six months on maternal nutritional status and infant motor development: Results of two randomized trials in Honduras. *J Nutr* 2001;131:262-7.
7. Kramer MS, Guo T, Platt RW, et al. Infant growth and health outcomes associated with 3 compared with 6 mo of exclusive breastfeeding. *Am J Clin Nutr* 2003;78:291-5.
8. World Health Organization. World Health Statistics 2011. Geneva: WHO, 2011.
9. World Health Organization. WHO Global Data Bank on Infant and Young Child Feeding (IYCF): Bangladesh. Geneva: WHO, 2010.
10. Piper S, Parks PL. Predicting the duration of lactation: Evidence from a national survey. *Birth* 1996;23:7-12.
11. Scott JA, Binns CW, Oddy WH, et al. Predictors of Breastfeeding Duration: Evidence from a Cohort Study. *Pediatrics* 2006;117:e646.

12. Khoury AJ, Moazzem SW, Jarjoura CM, et al. Breast-feeding initiation in low-income women: Role of attitudes, support, and perceived control. *Womens Health Issues* 2005;15:64-72.
13. Ajzen I. The Theory of Planned Behavior. *Organ Behav Hum Decis Process* 1991;50:179-211.
14. Ajzen I. Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *J Appl Soc Psychol* 2002;32:665-83.
15. Armitage C, Conner M. Efficacy of the Theory of Planned Behavior: A meta-analytic review. *Br J Soc Psychol* 2001;40:471-99.
16. Janke JR. Development of the breast-feeding attrition prediction tool. *Nurs Res* 1994;43:100-4.
17. National Institute of Population Research and Training (NIPORT), Mitra and Associates, Macro International. Bangladesh Demographic and Health Survey 2007. Dhaka and Calverton: NIPORT, Mitra and Associates, and Macro International, 2009.
18. World Health Organization. Indicators for assessing infant and young child feeding practices (Part I: Definitions): conclusions of a consensus meeting held 6–8 November 2007 in Washington D.C., USA. Geneva: WHO, 2008.
19. Thomas JS. *Attitude, self-efficacy, knowledge and intention to exclusively breastfeed among pregnant women in rural Bangladesh* [thesis]. Atlanta, GA: Emory University; 2011.
20. Haider R, Ashworth A, Kabir I, et al. Effect of community-based peer counsellors on exclusive breastfeeding practices in Dhaka, Bangladesh: a randomised controlled trial. *Lancet* 2000;356(9242):1643-7.
21. Gill SL, Reifsnider E, Lucke JF, et al. Predicting breast-feeding attrition: Adapting the breast-feeding attrition prediction tool. *J Perinat Neonatal Nurs* 2007;21:216-24.

22. Wambach K. Breastfeeding Intention and Outcome: A Test of the Theory of Planned Behavior. *Res Nurs Health* 1997;20:51.
23. Mitra AK, Khoury AJ, Hinton AW, et al. Predictors of Breastfeeding Intention Among Low-Income Women. *Matern Child Health J* 2004;8(2):65-70.
24. Evans ML, Dick MJ, Lewallen LP, et al. Modified breastfeeding attrition prediction tool: Prenatal and postpartum tests. *J Perinat Educ* 2004;13:1-8.
25. Lewallen LP, Dick MJ, Wall Y, et al. Toward a clinically useful method of predicting early breast-feeding attrition. *Appl Nurs Res* 2006;19:144-8.
26. Chatman L, Hasumi S, Roofe M, et al. Influence of knowledge and attitudes on exclusive breastfeeding practice among rural Jamaican mothers. *Birth* 2004;31(4):265-71.
27. Lawson K, Tulloch MI. Breastfeeding duration: prenatal intentions and postnatal practices. *J Adv Nurs* 1995;22:841-9.
28. Dick MJ, Evans ML, Arthurs JB, et al. Predicting early breastfeeding attrition. *J Hum Lact* 2002;18:21-8.
29. Mossman M, Heaman M, Dennis CL, et al. The influence of adolescent mothers' breastfeeding confidence and attitudes on breastfeeding initiation and duration. *J Hum Lact* 2008;24:268-77.
30. De La Mora A, Russell DW. The Iowa Infant Feeding Attitude Scale: Analysis of reliability and validity. *J Appl Soc Psychol* 1999;29(11):2362-80.
31. Leff EW, Jefferis SC, Gagne MP. The Development of the Maternal Breastfeeding Evaluation Scale. *J Hum Lact* 1994;10(2):105-11.
32. Janke JR. Prediction of Breast-Feeding Attrition: Instrument Development. *Appl Nurs Res* 1992;5(1):48-53.
33. O'Campo P, Faden RR, Gielen AC, et al. Prenatal Factors Associated with Breastfeeding Duration: Recommendations for Prenatal Interventions. *Birth* 1992;19(4):195-201.

34. Ekwo EE, Dusdieker LB, Booth B, et al. Psychosocial factors influencing the duration of breastfeeding by primigravidas. *Acta Paediatr* 1984;73:241-7.
35. Blyth R, Creedy D, Denis C, et al. Effect of Maternal Confidence on Breastfeeding Duration: An application of Breastfeeding Self-efficacy Theory. *Birth* 2002;29(4):278.
36. Dodgson JE, Henly SJ, Duckett L, et al. Theory of Planned Behavior-Based Models for Breastfeeding Duration Among Hong Kong Mothers. *Nurs Res* 2003;52(3):148-58.
37. Duckett L, Henly S, Avery M, et al. A theory of planned behavior based structural model for breast-feeding. *Nurs Res* 1998;47:325-35.
38. Dennis CL. The Breastfeeding Self-Efficacy Scale: Psychometric assessment of the short form. *J Obstet Gynecol Neonatal Nurs* 2003;32(6):734-44.
39. Wambach KA, Aaronson L, Breedlove G, et al. A Randomized Controlled Trial of Breastfeeding Support and Education for Adolescent Mothers. *West J Nurs Res* 2011;33:486-505.
40. Janke JR. Breastfeeding duration following cesarean and vaginal births. *J Nurse Midwifery* 1988;33:159-64.
41. Haider R, Kabir I, Ashworth A. Are Breastfeeding Promotion Messages Influencing Mothers in Bangladesh? Results from an Urban Survey in Dhaka, Bangladesh. *J Trop Pediatr* 1999;45:315-8.

Chapter III: Implications

Summary

In light of government and non-profit efforts to address malnutrition and issues related to deficiencies, and widely recognized detrimental effects of suboptimal breastfeeding, a key question that remains is why women are not exclusively breastfeeding. This study considered some of the psychosocial determinants, which were found to account for some of the variance in breastfeeding behaviors at 3 months in rural Bangladesh.

Among our study population in 2 sub-districts of rural northeastern Bangladesh (Karimganj and Katiadi), nearly all women initiated breastfeeding, as expected from national data. Exclusive breastfeeding at 3 months after delivery was approximately 40%, which is similar to national statistics as well. Given the known consequences of suboptimal infant feeding during the first several months of life, in addition to the high rates of malnutrition among young children in Bangladesh, achieving higher proportions of EBF remains a critical issue.

In our study, maternal psychosocial determinants (positive attitudes, strong self-efficacy) and breastfeeding knowledge appeared predictive of intentions. Intentions to EBF predicted EBF at 3 months after delivery; however attitudes, self-efficacy, and knowledge did not.

Public Health Implications

Associations between psychosocial risk factors and breastfeeding behaviors suggest the need for the inclusion of programmatic and policy support to increase EBF intention, as well as improve maternal attitudes, self-efficacy, and knowledge regarding breastfeeding.

Possible Future Directions

Given the dearth of literature regarding prenatal psychosocial determinants for exclusive breastfeeding in under-resourced countries including Bangladesh, many questions remain. How predictive intentions, attitudes, self-efficacy, and knowledge are of breastfeeding behaviors in

rural Bangladesh, while accounting for perceived norms remains unclear. The effectiveness and timing of programmatic interventions in rural Bangladesh in regards to improving intentions, positive attitudes, self-efficacy, knowledge, and improved infant feeding remains areas of further research.

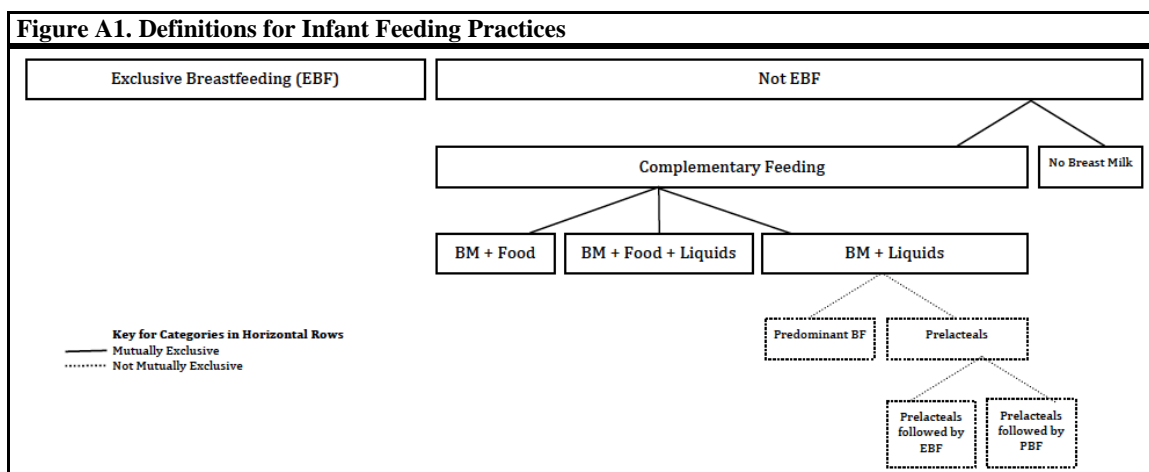
Appendix

Definitions

EBF Initiation and Duration

In order to ensure optimal growth, development, and health of infants,(1, 2) six months of EBF is recommended by the WHO, UNICEF, and American Academy of Pediatricians.(3, 4) Earlier in 2011, the WHO officially re-affirmed support of six months of EBF as distinctly advantageous over EBF for 3-4 months, based on a 2009 systematic review.(1, 2)

Standard WHO indicators for EBF are commonly used to assess initiation and duration of EBF at the population-level.(5) Initiation of EBF is defined as having “ever” been EBF. Part of a larger set of fourteen infant and young child feeding (IYCF) indicators mostly related to food intake, evaluative measures of EBF are used for assessment, targeting resources and efforts, and monitoring and evaluation. EBF under six months is measured by the proportion of infants 0-5 months of age who are fed exclusively with breast milk (infants 0-5 completed months of age who received only breast milk during the previous divided by infants 0-5 months of age). The proportion of children born in the last 24 months who were put to the breast within one hour of birth is assessed by dividing children born in the last 24 months who were put to the breast within one hour of birth, by children born in the last 24 months.



Appendix: Additional Descriptive Statistics & Regressions

**Table A1. Breastfeeding Practices from Birth to 3 Months
among Mothers Intending and Not Intending to EBF**

		Overall	Intention ^a	No Intention	
		<i>N</i> = 1470	<i>N</i> = 1134	<i>N</i> = 336	
		<i>N</i> (%)			
At 3 Months	24 Hour Dietary ^b Recall	Exclusive Breastfeeding (EBF)^c	639 (43.5)	535 (47.2)	104 (31.0)
		Predominant Breastfeeding (PBF)	389 (26.5)	286 (25.2)	103 (30.7)
		Complementary Fed	826 (56.2)	594 (52.4)	232 (69.1)
		BM + Other Liquids	766 (52.1)	552 (48.7)	214 (63.7)
		BM + Foods	17 (1.2)	13 (1.2)	4 (1.2)
		BM + Foods + Liquids	43 (2.9)	29 (2.6)	14 (4.2)
		No Breast Milk	5 (0.3)	5 (0.4)	0 (0)
		EBF	843 (57.4)	692 (61.0)	151 (44.9)
		PBF	302 (20.5)	215 (19.0)	87 (25.9)
		Complementary Fed	624 (42.5)	439 (38.7)	185 (55.1)
No Breast Milk	3 (0.2)	3 (0.3)	0 (0)		
Prior to 3 Months	Liquid Intake Recall ^d	EBF at . . .			
		0-3 Days	854 (58.1)	702 (61.9)	152 (45.2)
		4 Days	1135 (77.2)	908 (80.1)	227 (67.6)
		2 Weeks	1006 (68.4)	821 (72.4)	185 (55.1)
		1 Month	813 (55.3)	680 (60.0)	133 (39.6)
		2 Months	524 (35.7)	438 (38.6)	86 (25.6)
		Prelacteals^e			
		0-3 Days	80 (5.4)	70 (6.2)	10 (3.0)
		4 Days	68 (4.6)	52 (4.6)	16 (4.8)
		PBF			
		0-3 Days	135 (9.2)	97 (8.6)	38 (11.3)
		4 Days	196 (13.3)	127 (11.2)	69 (20.5)
		2 Weeks	301 (20.5)	200 (17.6)	101 (30.1)
		1 Month	399 (27.1)	269 (23.7)	130 (38.7)
		2 Months	460 (31.3)	336 (29.6)	124 (36.9)
		Complementary Fed			
		0-3 Days	602 (41.0)	422 (37.2)	180 (53.6)
		4 Days	330 (22.5)	222 (19.6)	108 (32.1)
		2 Weeks	459 (31.2)	309 (27.3)	150 (44.6)
		1 Month	653 (44.4)	451 (39.8)	202 (60.1)
		2 Months	940 (64.0)	691 (60.9)	249 (74.1)
		No Breast Milk			
0-3 Days	14 (1.0)	10 (0.9)	4 (1.2)		
4 Days	5 (0.3)	4 (0.4)	1 (0.3)		
2 Weeks	5 (0.3)	4 (0.4)	1 (0.3)		
1 Month	4 (0.3)	3 (0.3)	1 (0.3)		
2 Months	6 (0.4)	5 (0.4)	1 (0.3)		

^a Self-reported prenatal intention to EBF among mothers.

^b Defined as reporting EBF in 24-hour dietary recall during the 24 hours prior to interview; 0-3 days, 4 days, 2 weeks, 1 month, 2 month, 3 months after birth; never having given infant water, liquids aside from breast milk, foods.

^c WHO & UNICEF breastfeeding definitions. Predominant breastfeeding is defined as when the predominant source of nourishment is breast milk although the infant may have received water and water-based drinks, fruit juice, oral rehydration salts solutions, drop and syrup vitamins, minerals, medicines, and ritual fluids).

^d A number of responses were recorded as "Not Applicable" in the liquid consumption, including 431 women at 3 months; 1 woman at 4 days; and 5 women between 0-3 days. Given that over 99% of women reported giving breast milk to their infants according to the 24 hour recall, it was assumed that "Not Applicable" may have been marked by some interviewers for women who were still breastfeeding their infants and recoded as having given breast milk.

^e Prelacteals are defined as any plain or sugar water, honey, oil given in first 4 days after birth. These categories include infants who received any prelacteals and/or breast milk up until 4 days.

Table A2. Breastfeeding Practices from Birth to 3 Months in Karimganj and Katiadi

		Overall	Karimganj	Katiadi	
N (%)		N = 1470	N = 733	N = 737	
At 3 Months	24 Hour Dietary Recall ^a	Exclusive Breastfeeding (EBF)^b	639 (43.5)	423 (57.7)	216 (29.3)
		Predominant Breastfeeding (PBF)	389 (26.5)	143 (19.5)	246 (33.4)
		Complementary Fed	826 (56.2)	308 (42.0)	518 (70.3)
		BM + Other Liquids	766 (52.1)	277 (37.8)	489 (66.4)
		BM + Foods	17 (1.2)	13 (1.8)	4 (0.5)
		BM + Foods + Liquids	43 (2.9)	18 (2.5)	25 (3.4)
	No Breast Milk	5 (0.3)	2 (0.3)	3 (0.4)	
	Liquids Intake Recall ^c	EBF	843 (57.4)	518 (70.7)	325 (44.1)
		PBF	192 (13.1)	55 (7.5)	137 (18.6)
		Complementary Fed	624 (42.5)	214 (29.2)	410 (55.6)
Prior to 3 Months	EBF at . . .	0-3 Days	854 (58.1)	554 (75.6)	300 (40.7)
		4 Days	1135 (77.2)	639 (87.2)	496 (67.3)
		2 Weeks	1006 (68.4)	576 (78.6)	430 (58.3)
		1 Month	813 (55.3)	504 (68.8)	309 (41.9)
		2 Months	524 (35.7)	365 (49.8)	159 (21.6)
		Prelacteals^d	0-3 Days	80 (5.4)	38 (5.2)
	4 Days	68 (4.6)	28 (3.8)	40 (5.4)	
	PBF	0-3 Days	135 (9.2)	37 (5.1)	98 (13.3)
		4 Days	196 (13.3)	54 (7.4)	142 (19.3)
		2 Weeks	301 (20.5)	91 (12.4)	210 (28.5)
		1 Month	399 (27.1)	123 (16.8)	276 (37.5)
		2 Months	460 (31.3)	175 (23.9)	285 (38.7)
		Complementary Fed	0-3 Days	602 (41.0)	176 (24.0)
	4 Days	330 (22.5)	90 (12.3)	240 (32.6)	
	2 Weeks	459 (31.2)	155 (21.2)	304 (41.3)	
	1 Month	653 (44.4)	227 (31.0)	426 (57.8)	
	2 Months	940 (64.0)	366 (49.9)	574 (77.9)	
	No Breast Milk	0-3 Days	14 (1.0)	3 (0.4)	11 (1.5)
		4 Days	5 (0.3)	4 (0.6)	1 (0.1)
2 Weeks		5 (0.3)	2 (0.3)	3 (0.4)	
1 Month		4 (0.3)	2 (0.3)	2 (0.3)	
2 Months		6 (0.4)	2 (0.3)	4 (0.5)	

^a Defined as reporting EBF in 24-hour dietary recall during the 24 hours prior to interview; 0-3 days, 4 days, 2 weeks, 1 month, 2 months, 3 months after birth; never having given infant water, liquids aside from breast milk, foods.

^b WHO & UNICEF breastfeeding definitions. Predominant breastfeeding is defined as when the predominant source of nourishment is breast milk although the infant may have received water and water-based drinks, fruit juice, oral rehydration salts solutions, drop and syrup vitamins, minerals, medicines, and ritual fluids).

^c A number of responses were recorded as "Not Applicable" in the liquid consumption, including 431 women at 3 months; 1 woman at 4 days; and 5 women between 0-3 days. Given that over 99% of women reported giving breast milk to their infants according to the 24 hour recall, it was assumed that "Not Applicable" may have been marked by some interviewers for women who were still breastfeeding their infants and recoded as having given breast milk.

^d Prelacteals are defined as any plain or sugar water, honey, oil given in first 4 days after birth. These categories include infants who received any prelacteals and/or breast milk up until 4 days.

Table A3. Twenty-Four Hour Dietary Consumption Recall among Infants at 3 Months in Karimganj and Katiadi^a

		Overall	Karimganj	Katiadi
N (%)		N = 1470	N = 733	N = 737
Liquids	Breast Milk	1465 (99.7)	731 (99.7)	734 (99.6)
	Water	648 (44.1)	221 (30.2)	427 (57.9)
	Sugar Water/Honey/Juice	48 (3.3)	16 (2.2)	32 (4.3)
	Infant Formula	178 (12.1)	77 (10.5)	101 (13.7)
	Cow Milk	171 (11.6)	46 (6.3)	125 (17.0)
	Goat Milk	3 (0.2)	0 (0.0)	3 (0.4)
	Luta/Suji	9 (0.6)	4 (0.6)	5 (0.7)
	Other Liquids	6 (0.4)	2 (0.3)	4 (0.5)
Foods	Grains/Cereals	33 (2.2)	16 (2.2)	17 (2.3)
	Vitamin A-rich Fruits	3 (0.2)	1 (0.1)	2 (0.3)
	Other Fruits	16 (1.1)	11 (1.5)	5 (0.7)
	Eggs	1 (0.1)	1 (0.1)	0 (0.0)
	Milk/Milk Products	5 (0.3)	2 (0.3)	3 (0.4)
	Junk Food	4 (0.3)	2 (0.3)	2 (0.3)
# of times soft/semi-solid/family foods consumed	0	1410 (95.9)	702 (95.8)	708 (96.1)
	1	30 (2.0)	19 (2.6)	11 (1.5)
	2	26 (1.8)	11 (1.5)	15 (2.0)
	3	3 (0.2)	1 (0.1)	2 (0.3)
	4	1 (0.1)	0 (0.0)	1 (0.1)

^a Reported infant consumption according to 24-hour dietary recall from caregiver at 3 months after birth. No consumption of the following items: yogurt, vitamin-A rich vegetables/tubers, white tubers/roots, dark green leafy vegetables, other vegetables, organ meat, flesh meat, fish, legumes/nuts/seeds, oils/fats.

Table A4. Liquid Consumption Recall between Birth and 3 Days among Infants in Karimganj and Katiadi ^a

		Overall	Karimganj	Katiadi
N (%)		N = 1470	N = 733	N = 737
0-3 Days	Breast Milk	1456 (99.1)	730 (99.6)	726 (98.5)
	Water	153 (10.4)	41 (5.6)	112 (15.2)
	Sugar Water/Honey/Juice	406 (27.6)	108 (14.7)	298 (40.4)
	Animal Milk (Cow, Goat)	44 (3.0)	19 (2.6)	25 (3.4)
	Infant Formula	36 (2.5)	19 (2.6)	17 (2.3)
4 Days	Breast Milk	1465 (99.7)	729 (99.5)	736 (99.9)
	Water	233 (15.9)	60 (8.2)	173 (23.5)
	Sugar Water/Honey/Juice	79 (5.4)	16 (2.2)	63 (8.6)
	Animal Milk (Cow, Goat)	24 (1.6)	5 (0.7)	19 (2.6)
	Infant Formula	45 (3.1)	23 (3.1)	22 (3.0)

^a Reported infant consumption according to 24-hour dietary recall from caregiver at 3 months after birth. No consumption of the following items: yogurt, vitamin-A rich vegetables/tubers, white tubers/roots, dark green leafy vegetables, other vegetables, organ meat, flesh meat, fish, legumes/nuts/seeds, oils/fats.

Table A5. Intentions versus Mutually-Exclusive Categories of Breastfeeding Practices among 3 Month Infants in Karimganj and Katiadi

			EBF	Non-EBF		
				<i>Predominant BF</i>	<i>All other non-EBF, excluding PBF</i>	
Maternal Intention to EBF as Primary Method to Feeding Infant	Yes	N = 1134	535 (47.2)	286 (25.2)	313 (27.6)	
	No	N = 336	104 (31.0)	103 (30.7)	129 (38.4)	$p = 0.000^a$
	Total	N = 1470	639 (43.5)	389 (26.5)	442 (30.1)	

^a Pearson chi-square test statistic

Health Characteristics of Mothers and Infants in Karimganj and Katiadi

**Table A6. WHO Growth Indicators among Infants at 3 Months
in Karimganj and Katiadi**

Mean (SD)		Overall	Karimganj	Katiadi
		N = 1469 M = 708 F = 761	N = 733 M = 357 F = 376	N = 736 M = 351 F = 385
Height (cm)	M	58.1 (2.5)	58.0 (2.5)	58.3 (2.4)
	F	56.8 (2.5)	56.6 (2.3)	57.0 (2.7)
Weight (kg)	M	5.6 (1.0)	5.6 (1.1)	5.6 (0.9)
	F	5.1 (0.8)	5.1 (0.8)	5.1 (0.9)
BMI	M	16.6 (2.7)	16.7 (3.2)	16.6 (2.2)
	F	15.8 (2.3)	15.9 (2.1)	15.7 (2.5)
Head Circumference (cm)	M	39.1 (1.4)	39.1 (1.5)	39.1 (1.3)
	F	38.1 (1.3)	38.1 (1.3)	38.1 (1.3)
HAZ	M	-1.6 (1.1)	-1.6 (1.1)	-1.5 (1.0)
	F	-1.4 (1.0)	-1.4 (1.0)	-1.3 (1.0)
WAZ	M	-1.1 (1.3)	-1.1 (1.3)	-1.1 (1.3)
	F	-1.1 (1.2)	-1.1 (1.2)	-1.1 (1.3)
BMI-Z	M	-0.3 (1.5)	-0.2 (1.5)	-0.3 (1.5)
	F	-0.5 (1.4)	-0.4 (1.4)	-0.5 (1.4)
Weight for Height Z	M	0.2 (1.5)	0.3 (1.5)	0.2 (1.5)
	F	0.0 (1.4)	0.1 (1.4)	0.0 (1.4)
Head Circumference for Age Z	M	-1.2 (1.1)	-1.2 (1.1)	-1.3 (1.1)
	F	-1.1 (1.0)	-1.1 (1.0)	-1.1 (1.0)

^a Z-scores calculated according to WHO standard definitions calculated by WHO (Department of Nutrition for Health and Development) STATA macro available at: <http://www.who.int/growthref/tools/en/>

Table A7. Anemia at 3 Months among Mothers and Infants in Karimganj and Katiadi

	Overall	Karimganj	Katiadi
Mothers	<i>N</i> = 1461		
<i>Anemia (Hb < 11.0 g/L)</i> ^a	571 (39.1)	312 (42.7)	259 (35.5)
<i>Anemia (Hb < 12.0 g/L)</i>	1008 (69.0)	523 (71.6)	485 (66.4)
<i>Hemoglobin</i>	11.2 (1.4)	11.1 (1.4)	11.3 (1.4)
Infants	<i>N</i> = 1463		
<i>Anemia (Hb < 11.0 g/L)</i>	1318 (90.1)	674 (92.1)	643 (88.1)
<i>Hemoglobin</i>	9.5 (1.1)	9.4 (1.1)	9.5 (1.2)

^a Hemoglobin cut-offs are defined according to standard WHO values for pregnant (11.0 g/L) and non-pregnant (12.0 g/L). Infant cut-off value is based on WHO standard for infants at 6 months age.

Table A8. Diarrhea, ARI, and Fever among Infants at 3 Months^a

	Overall N = 1470	Karimanj N = 733	Katiadi N = 737
Diarrhea	30 (2.0)	6 (0.8)	24 (3.3)
Cough	806 (54.8)	390 (53.2)	416 (56.5)
Fever	639 (43.5)	279 (38.1)	360 (48.9)

^a Reported incidence based on 2-week recall prior to interview

Household Characteristics of Mothers and Infants in Karimganj & Katiadi

Table A9. Household Characteristics of Mother-Infant Dyads

	Overall N = 1470	Karimganj N = 733	Katiadi N = 737
Primary Building Materials			
<i>Roof</i>			
Tin	1437 (97.8)	704 (96.0)	733 (99.5)
Straw/Thatch/Leaf	22 (1.5)	20 (2.7)	2 (0.3)
Other	11 (0.8)	9 (1.2)	2 (0.3)
<i>Wall</i>			
Tin	1176 (80.0)	551 (75.2)	625 (84.8)
Straw/Coconut leaves/Branches	207 (14.1)	145 (19.8)	62 (8.4)
Bricks/Cement/Concrete	73 (5.0)	26 (3.6)	47 (6.4)
Other	14 (1.0)	11 (1.5)	3 (0.4)
<i>Floor</i>			
Dirt	1406 (95.7)	709 (96.7)	697 (94.6)
Wood	1 (0.1)	1 (0.1)	0 (0)
Stone-brick	53 (3.6)	15 (2.1)	38 (5.2)
Cement	10 (0.7)	8 (1.1)	2 (0.3)
# Rooms in Home for Sleeping ^a	1.8 (1.7-1.8)	1.8 (1.7-1.8)	1.7 (1.7-1.8)
Owns Agricultural Land	681 (46.3)	349 (47.6)	332 (45.1)
Household Food Security			
In last month...			
<i>Purchased rice</i>			
0 times/month	684 (46.5)	357 (48.7)	327 (44.4)
1-3 times/month	450 (30.6)	233 (31.8)	217 (29.4)
>3 times/month	336 (22.9)	143 (19.5)	193 (26.2)
<i>Purchased perishable food items</i>			
≤1 time/week	91 (6.2)	29 (4.0)	62 (8.4)
2-3 times/week	607 (41.3)	288 (39.3)	319 (43.3)
≥4-5 times/week	772 (52.5)	416 (56.8)	356 (48.3)
# Times cooking/day ^a	2.2 (2.1-2.2)	2.2 (2.1-2.2)	2.2 (2.1-2.2)
Gave others outside household cash/food	323 (22.0)	131 (17.9)	192 (26.1)
# Times borrowed from others			
0 times/month	1037 (70.5)	525 (71.6)	512 (69.5)
1-3 times/month	364 (24.8)	178 (24.3)	186 (25.2)
>3 times/month	69 (4.7)	30 (4.1)	39 (5.3)
Among those who borrowed, have paid (or will be able to pay) back ^b	415 (95.8)	194 (93.3)	221 (98.2)
Average # of fulfilling meals/day	2.8 (2.8-2.9)	2.9 (2.9-2.9)	2.8 (2.7-2.8)
# Times did NOT eat fulfilling meals			
0 times/month	1164 (79.2)	640 (87.3)	524 (71.1)
1-3 times/month	105 (7.1)	29 (4.0)	76 (10.3)
>3 times/month	201 (13.7)	64 (8.7)	137 (18.6)
Snacks between meals			
0 times/day	677 (46.1)	394 (53.8)	283 (38.4)
1-2 times/day	703 (47.8)	315 (43.0)	388 (52.7)
≥3 times/day	90 (6.1)	24 (3.3)	66 (9.0)
# Times ate fish/meat			
≤1 time/week	130 (8.4)	55 (7.5)	75 (10.2)
2-3 times/week	489 (33.3)	195 (26.6)	294 (39.9)
≥4-5 times/week	851 (57.9)	483 (65.9)	368 (49.9)

<i># Times at rice with chili/salt</i>			
0 times/month	1217 (82.8)	629 (85.8)	588 (79.8)
1-3 times/month	143 (9.7)	55 (7.5)	88 (11.9)
>3 times/month	110 (7.5)	49 (6.7)	61 (8.3)

^a Continuous outcomes reported as: mean value (95% confidence interval).

^b In this row, percentages are based on all those who borrowed in the past month (Overall N = 433; Karimganj N = 208; Katiadi N = 225)

Table A10. Delivery Locations of Infants in Karimganj & Katiadi

		Home	Maternal Home	Private Hospital/Clinic	Government Hospital	Upazila Health Complex	Other
Overall	N = 1470	817 (55.6)	423 (28.8)	108 (7.4)	57 (3.9)	35 (2.4)	30 (2.0)
Intervention <i>Karimganj</i>	N = 733	419 (57.2)	200 (27.3)	49 (6.7)	36 (4.9)	12 (1.6)	17 (2.3)
Control <i>Katiadi</i>	N = 737	398 (54.0)	223 (30.3)	59 (8.0)	21 (2.9)	23 (3.1)	13 (1.8)

Program Coverage at 3 Months after Delivery among Mothers in Karimganj and Katiadi

Table A11. Sources of Breastfeeding Information & Support Reported by Mothers at 3 Months

N (%)	Overall	Karimganj	Katiadi	Karimganj		Katiadi	
	<i>N = 1470</i>	<i>N = 733</i>	<i>N = 737</i>	<i>Cohort 1 N = 364</i>	<i>Cohort 2 N = 369</i>	<i>Cohort 1 N = 365</i>	<i>Cohort 2 N = 372</i>
Who provides you information on breastfeeding?							
CC	70 (4.8)	67 (9.1)	3 (0.4)	21 (5.8)	46 (12.5)	2 (0.6)	1 (0.3)
CHNW	15 (1.0)	13 (1.8)	2 (0.3)	9 (2.5)	4 (1.1)	1 (0.3)	1 (0.3)
CHNM	16 (1.1)	16 (2.2)	0 (0)	13 (3.6)	3 (0.8)	0 (0)	0 (0)
Where do you gain information about breastfeeding?							
Counselors	137 (9.3)	133 (18.1)	4 (0.5)	31 (8.5)	102 (27.6)	1 (0.3)	3 (0.8)
Who checked on infant 1 month after birth?							
CC	1 (0.1)	1 (0.1)	0 (0)	1 (0.3)	0 (0)	0 (0)	0 (0)
CHNW	3 (0.2)	1 (0.1)	2 (0.3)	1 (0.3)	0 (0)	0 (0)	2 (0.3)
CHNM	2 (0.1)	2 (0.3)	0 (0)	2 (0.6)	0 (0)	0 (0)	0 (0)

Table A12. Counseling during pregnancy from Other NGO Worker

N (%)	Overall	Karimanj	Katiadi	Karimanj		Katiadi	
	<i>N = 1470</i>	<i>N = 733</i>	<i>N = 737</i>	<i>Cohort 1 N = 364</i>	<i>Cohort 2 N = 369</i>	<i>Cohort 1 N = 365</i>	<i>Cohort 2 N = 372</i>
Mother received counseling from NGO Worker (not BRAC, Smiling Sun) during pregnancy regarding:							
Nutrition	151 (10.3)	131 (17.9)	20 (2.7)	46 (12.6)	85 (23.0)	3 (0.8)	17 (4.6)
Breastfeeding	88 (6.0)	76 (10.4)	12 (1.6)	25 (6.9)	51 (13.8)	1 (0.3)	11 (3.0)
IYCF (excluding breastfeeding)	63 (4.3)	55 (7.5)	8 (1.1)	19 (5.2)	36 (9.8)	0(0)	8 (2.2)

Regression Analyses – Exclusive Breastfeeding

Table A13: Bivariate Logistic Regression Results for Exclusively Breastfeeding at 3 Months

	Overall		Karimganj		Katiadi	
	Exp (β) Unadjusted OR	95% CI	Exp (β) Unadjusted OR	95% CI	Exp (β) Unadjusted OR	95% CI
Intention to EBF^a	1.99	(1.54, 2.58)	2.00	(1.27, 3.12)	1.21	(0.86, 1.70)
Maternal Constructs						
<i>Continuous^b</i>						
Attitudes on Breastfeeding (0-45) ^c	1.00	(0.99, 1.02)	1.00	(0.99, 1.02)	1.00	(0.98, 1.02)
Self-Efficacy (0-30) ^c	0.96	(0.94, 0.99)	1.03	(0.99, 1.07)	0.98	(0.93, 1.03)
Breastfeeding Knowledge (0-6)	1.14	(1.06, 1.24)	1.17	(1.05, 1.30)	1.05	(0.93, 1.18)
<i>Categorical^d</i>						
<i>Distribution-Based Cutpoints</i>						
Attitudes on Breastfeeding (strong vs weak) ^c	1.10	(0.89, 1.36)	1.16	(0.86, 1.57)	1.13	(0.81, 1.59)
Self-Efficacy (high vs low) ^c	0.95	(0.72, 1.24)	1.55	(1.11, 2.16)	1.00	(0.57, 1.76)
Breastfeeding Knowledge (sufficient vs insufficient)	1.33	(1.04, 1.70)	1.35	(0.94, 1.92)	1.18	(0.82, 1.72)
<i>Categorical Cutpoints at Median</i>						
Attitudes on Breastfeeding (strong vs weak) ^c	1.09	(0.89, 1.34)	1.15	(0.86, 1.55)	1.04	(0.75, 1.42)
Self-Efficacy (high vs low) ^c	0.79	(0.64, 0.98)	1.09	(0.81, 1.46)	0.82	(0.58, 1.14)
Breastfeeding Knowledge (sufficient vs insufficient)	1.37	(1.12, 1.69)	1.41	(1.05, 1.89)	1.09	(0.79, 1.50)
Distal Covariates						
Maternal Age						
15-25	1.00		1.00		1.00	
26-35	0.98	(0.79, 1.22)	0.96	(0.71, 1.31)	0.93	(0.66, 1.31)
36+	0.97	(0.59, 1.58)	0.80	(0.40, 1.58)	1.13	(0.54, 2.39)
Previous Births						
None	1.00		1.00		1.00	
1	1.24	(0.93, 1.66)	0.93	(0.62, 1.41)	1.59	(1.01, 2.49)
>1	1.03	(0.81, 1.32)	0.96	(0.68, 1.37)	1.10	(0.75, 1.62)

Socio-Economic Index (1-22)	1-6	1.00		1.00		1.00	
	7-12	0.91	(0.72, 1.16)	0.87	(0.62, 1.22)	0.85	(0.59, 1.22)
	13-22	1.32	(0.96, 1.81)	1.23	(0.77, 1.97)	1.41	(0.89, 2.26)
Mother Education	Illiterate	1.00		1.00		1.00	
	Literate	1.11	(0.90, 1.38)	0.96	(0.71, 1.29)	1.60	(1.13, 2.27)
Prenatal Care	No	1.00		1.00		1.00	
	Yes	1.37	(1.11, 1.69)	1.10	(0.81, 1.48)	1.46	(1.05, 2.04)
Location	Katiadi	1.00		---	---	---	---
	Karimganj	3.29	(2.65, 4.08)	---	---	---	---
	Cohort 1	1.00		1.00		1.00	
	Cohort 2	1.15	(0.94, 1.42)	1.17	(0.87, 1.57)	1.17	(0.85, 1.61)
Interaction	Location & Cohort ^e	2.40	(1.89, 3.06)	---	---	---	---

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA).

^c Cohort 1 responses were originally in 1-3 Likert scale, and re-coded to 1,3,5 for comparison to Cohort 2 responses in 1-5 Likert scale.

^d Continuous maternal indices dichotomized by the following cut-point values: strong positive attitudes if > 53; high self-efficacy if >23; breastfeeding knowledge if > 2.

^e Interaction terms is coded as 1 for Karimganj, Cohort 2; and 0 for other combinations of location and cohort.

Table A14: Multivariate Logistic Regression Results for Exclusive Breastfeeding at 3 Months in Karimganj and Katiadi

	Model 1		Model 2		Overall		Model 4		Model 5	
	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI
Intention to EBF^a	1.90	(1.46, 2.48)	1.38	(1.04, 1.83)	1.39	(1.05, 1.84)	1.35	(1.02, 1.79)	1.35	(1.02, 1.80)
Maternal Constructs^b										
Positive Attitude Toward Breastfeeding ^c	1.08	(0.86, 1.35)	1.08	(0.86, 1.36)	1.09	(0.86, 1.39)	1.06	(0.84, 1.34)	1.08	(0.85, 1.37)
Self-Efficacy ^c	0.75	(0.60, 0.94)	1.02	(0.75, 1.38)	1.03	(0.76, 1.39)	1.03	(0.76, 1.40)	1.04	(0.77, 1.42)
Breastfeeding Knowledge	1.27	(1.02, 1.57)	1.18	(0.95, 1.48)	1.18	(0.95, 1.48)	1.16	(0.92, 1.45)	1.16	(0.92, 1.46)
Distal Factors										
Maternal Age										
15-25							1.00		1.00	
26-35							0.95	(0.71, 1.27)	0.96	(0.71, 1.28)
36+							1.03	(0.58, 1.82)	1.03	(0.58, 1.82)
Previous Births										
None							1.00		1.00	
1							1.12	(0.82, 1.53)	1.12	(0.81, 1.53)
>1							1.07	(0.76, 1.49)	1.06	(0.6, 1.49)
Socio-Economic Index (1-22)										
1-6							1.00		1.00	
7-12							0.81	(0.62, 1.04)	0.81	(0.62, 1.04)
13-22							1.15	(0.81, 1.65)	1.16	(0.81, 1.66)
Mother Education										
Illiterate							1.00		1.00	
Literate							1.10	(0.86, 1.42)	1.10	(0.86, 1.42)
Prenatal Care										
No							1.00		1.00	
Yes							1.19	(0.95, 1.50)	1.19	(0.95, 1.50)
Cohort										
1			1.00		1.00		1.00		1.00	
2			1.20	(0.90, 1.60)	1.13	(0.79, 1.61)	1.20	(0.90, 1.61)	1.12	(0.78, 1.61)
Sub-District										
Katiadi			1.00		1.00		1.00		1.00	
Karimganj			3.07	(2.44, 3.86)	2.88	(2.09, 3.98)	3.11	(2.47, 3.93)	2.89	(2.09, 4.00)
Interaction										
Cohort & Sub-District					1.00				1.00	
					1.13	(0.72, 1.78)			1.16	(0.73, 1.82)

Goodness of Fit					
Hosmer & Lemeshow Test χ^2 p-value	0.07	0.05	0.03	0.96	0.99
Cox & Snell R ²	0.03	0.09	0.09	0.09	0.10
Nagelkerke R ²	0.04	0.12	0.12	0.13	0.13

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA). Continuous maternal indices dichotomized by the median cut-point values.

^c Cohort 1 interviews asked respondents to rate attitudes and self-efficacy according to a 1-3 Likert scale. These items were recoded as 1, 3, 5 for comparison to Cohort 2 responses in 1-5 Likert scale.

Table A15: Multivariate Logistic Regression Results for Exclusive Breastfeeding at 3 Months in Karimganj and Katiadi (Continuous Maternal Indices)

	Karimganj				Katiadi			
	Model 1		Model 2		Model 3		Model 4	
	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper
Intention to EBF ^a	1.65	(1.02, 2.67)	1.64	(1.01, 2.67)	1.20	(0.84, 1.71)	1.09	(0.76, 1.57)
Maternal Constructs ^b								
Positive Attitude Toward Breastfeeding ^c	1.00	(0.98, 1.02)	1.00	(0.98, 1.02)	1.00	(0.98, 1.02)	1.00	(0.98, 1.02)
Self-Efficacy ^c	1.05	(0.98, 1.12)	1.06	(0.99, 1.13)	0.98	(0.92, 1.04)	0.99	(0.93, 1.05)
Breastfeeding Knowledge	1.10	(0.98, 1.24)	1.15	(1.01, 1.30)	1.04	(0.91, 1.18)	0.99	(0.87, 1.13)
Distal Factors								
Maternal Age								
15-25			1.00				1.00	
26-35			0.92	(0.61, 1.38)			0.99	(0.65, 1.52)
36+			0.78	(0.36, 1.68)			1.51	(0.65, 3.49)
Previous Births								
None			1.00				1.00	
1			0.70	(0.45, 1.10)			1.64	(1.02, 2.63)
>1			0.77	(0.47, 1.26)			1.29	(0.79, 2.12)
Socio-Economic Index (1-22)								
1-6			1.00				1.00	
7-12			0.81	(0.57, 1.16)			0.72	(0.49, 1.06)
13-22			1.16	(0.70, 1.92)			1.02	(0.61, 1.71)
Mother Education								
Illiterate			1.00				1.00	
Literate			0.84	(0.61, 1.18)			1.61	(1.09, 2.39)
Prenatal Care								
No			1.00				1.00	
Yes			1.05	(0.76, 1.43)			1.35	(0.95, 1.92)
Cohort								
1	1.00		1.00		1.00		1.00	
2	1.55	(1.00, 2.41)	1.63	(1.05, 2.55)	1.06	(0.73, 1.54)	1.09	(0.74, 1.61)
Goodness of Fit								
Hosmer & Lemeshow Test χ^2 p-value	0.82		0.82		0.40		0.20	
Cox & Snell R ²	0.02		0.03		0.00		0.03	
Nagelkerke R ²	0.03		0.05		0.01		0.04	

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month

Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA).

^c Cohort 1 interviews asked respondents to rate attitudes and self-efficacy according to a 1-3 Likert scale. These items were recoded as 1, 3, 5 for comparison to Cohort 2 responses in 1-5 Likert scale.

**Table A16: Multivariate Logistic Regression Results for Exclusive Breastfeeding at 3 Months in Karimganj and Katiadi
(Categorical Maternal Indices – distribution-based cutpoints)**

	Karimganj				Katiadi			
	Model 1		Model 2		Model 3		Model 4	
	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper
Intention to EBF ^a	1.68	(1.04, 2.72)	1.69	(1.04, 2.74)	1.15	(0.81, 1.65)	1.05	(0.73, 1.52)
Maternal Constructs ^b								
Positive Attitude Toward Breastfeeding ^c	1.05	(0.75, 1.46)	1.06	(0.76, 1.49)	1.09	(0.77, 1.55)	1.08	(0.76, 1.54)
Self-Efficacy ^c	1.61	(1.07, 2.41)	1.64	(1.09, 2.48)	0.98	(0.55, 1.76)	0.99	(0.55, 1.81)
Breastfeeding Knowledge	1.06	(0.72, 1.56)	1.17	(0.78, 1.76)	1.12	(0.76, 1.65)	0.99	(0.66, 1.49)
Distal Factors								
Maternal Age								
15-25			1.00				1.00	
26-35			0.93	(0.62, 1.39)			0.98	(0.64, 1.50)
36+			0.77	(0.36, 1.66)			1.53	(0.66, 3.54)
Previous Births								
None			1.00				1.00	
1			0.76	(0.48, 1.18)			1.62	(1.01, 2.60)
>1			0.83	(0.51, 1.36)			1.26	(0.77, 2.06)
Socio-Economic Index (1-22)								
1-6			1.00				1.00	
7-12			0.84	(0.59, 1.20)			0.72	(0.49, 1.05)
13-22			1.18	(0.71, 1.95)			1.01	(0.60, 1.69)
Mother Education								
Illiterate			1.00				1.00	
Literate			0.87	(0.62, 1.21)			1.61	(1.08, 2.38)
Prenatal Care								
No			1.00				1.00	
Yes			1.05	(0.77, 1.43)			1.35	(0.95, 1.91)
Cohort								
1	1.00		1.00		1.00		1.00	
2	1.46	(1.04, 2.05)	1.49	(1.06, 2.11)	1.14	(0.82, 1.59)	1.14	(0.81, 1.59)
Goodness of Fit								
Hosmer & Lemeshow Test χ^2 p-value	0.23		0.29		0.35		0.22	
Cox & Snell R ²	0.02		0.03		0.00		0.03	
Nagelkerke R ²	0.03		0.04		0.01		0.04	

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month

Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA). Continuous maternal indices dichotomized by the following cut-point values: strong positive attitudes if > 53; high self-efficacy if >23; breastfeeding knowledge if > 2.

^c Cohort 1 interviews asked respondents to rate attitudes and self-efficacy according to a 1-3 Likert scale. These items were recoded as 1, 3, 5 for comparison to Cohort 2 responses in 1-5 Likert scale.

Regression Analyses – Full Breastfeeding

Table A17: Bivariate Logistic Regression Results for Full Breastfeeding at 3 Months

	Overall		Karimganj		Katiadi	
	Exp (β) Unadjusted OR	95% CI	Exp (β) Unadjusted OR	95% CI	Exp (β) Unadjusted OR	95% CI
Intention to EBF^a	1.63	(1.27, 2.11)	1.88	(1.17, 3.04)	1.19	(0.87, 1.63)
Maternal Constructs						
<i>Continuous^b</i>						
Attitudes on Breastfeeding (0-45) ^c	1.00	(0.99, 1.02)	1.00	(0.98, 1.01)	1.01	(0.99, 1.03)
Self-Efficacy (0-30) ^c	0.98	(0.95, 1.01)	0.99	(0.94, 1.04)	1.02	(0.97, 1.08)
Breastfeeding Knowledge (0-6)	1.06	(0.97, 1.15)	1.00	(0.88, 1.14)	1.07	(0.96, 1.20)
<i>Categorical^d</i>						
<i>Distribution-Based Cutpoints</i>						
Attitudes on Breastfeeding (strong vs weak) ^c	1.11	(0.88, 1.40)	0.99	(0.69, 1.41)	1.26	(0.92, 1.72)
Self-Efficacy (high vs low) ^c	0.88	(0.65, 1.19)	1.13	(0.77, 1.66)	1.06	(0.62, 1.78)
Breastfeeding Knowledge (sufficient vs insufficient)	1.07	(0.83, 1.39)	0.93	(0.61, 1.43)	1.10	(0.78, 1.55)
<i>Categorical Cutpoints at Median</i>						
Attitudes on Breastfeeding (strong vs weak) ^c	1.02	(0.81, 1.27)	0.97	(0.69, 1.38)	1.04	(0.77, 1.41)
Self-Efficacy (high vs low) ^c	0.86	(0.68, 1.08)	0.93	(0.66, 1.31)	1.00	(0.73, 1.37)
Breastfeeding Knowledge (sufficient vs insufficient)	1.24	(0.99, 1.55)	1.00	(0.71, 1.42)	1.30	(0.96, 1.76)
Distal Covariates						
Maternal Age						
15-25	1.00		1.00		1.00	
26-35	0.94	(0.74, 1.19)	0.78	(0.55, 1.12)	1.03	(0.75, 1.43)
36+	0.85	(0.51, 1.43)	0.59	(0.28, 1.25)	1.11	(0.54, 2.30)
Previous Births						
None	1.00		1.00		1.00	
1	1.14	(0.83, 1.57)	0.86	(0.53, 1.42)	1.33	(0.86, 2.04)
>1	1.01	(0.78, 1.32)	0.79	(0.52, 1.21)	1.19	(0.84, 1.68)

Socio-Economic Index (1-22)	1-6	1.00		1.00		1.00	
	7-12	0.90	(0.70, 1.16)	0.94	(0.63, 1.39)	0.83	(0.59, 1.17)
	13-22	1.26	(0.88, 1.81)	1.18	(0.67, 2.07)	1.31	(0.82, 2.11)
Mother Education	Illiterate	1.00		1.00		1.00	
	Literate	0.97	(0.77, 1.22)	0.92	(0.64, 1.31)	1.08	(0.79, 1.47)
Prenatal Care	No	1.00		1.00		1.00	
	Yes	1.02	(0.81, 1.29)	0.74	(0.52, 1.05)	1.18	(0.85, 1.63)
Location	Katiadi	1.00		---	---	---	---
	Karimganj	2.02	(1.61, 2.53)	---	---	---	---
	Cohort 1	1.00		1.00		1.00	
	Cohort 2	1.33	(1.06, 1.66)	1.71	(0.20, 2.42)	1.12	(0.83, 1.51)
Interaction	Location & Cohort ^e	2.33	(1.74, 3.12)	---	---	---	---

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA).

^c Cohort 1 responses were originally in 1-3 Likert scale, and re-coded to 1,3,5 for comparison to Cohort 2 responses in 1-5 Likert scale.

^d Continuous maternal indices dichotomized by the following cut-point values: strong positive attitudes if > 53; high self-efficacy if >23; breastfeeding knowledge if > 2.

^e Interaction terms is coded as 1 for Karimganj, Cohort 2; and 0 for other combinations of location and cohort.

Table A18: Multivariate Logistic Regression Results for Full Breastfeeding at 3 Months in Karimganj and Katiadi

	Model 1		Model 2		Overall		Model 4		Model 5	
	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI	Exp (β) Adjusted OR	95% CI
	Intention to EBF^a	1.60	(1.23, 2.08)	1.29	(0.98, 1.70)	1.31	(1.00, 1.73)	1.29	(0.98, 1.70)	1.32
Maternal Constructs^b										
Positive Attitude Toward Breastfeeding ^c	0.99	(0.78, 1.25)	1.00	(0.78, 1.27)	1.05	(0.82, 1.35)	1.01	(0.79, 1.28)	1.06	(0.83, 1.36)
Self-Efficacy ^c	0.84	(0.66, 1.07)	1.24	(0.90, 1.70)	1.28	(0.93, 1.76)	1.23	(0.89, 1.70)	1.28	(0.93, 1.76)
Breastfeeding Knowledge	1.16	(0.93, 1.46)	1.09	(0.87, 1.38)	1.10	(0.87, 1.39)	1.09	(0.86, 1.39)	1.10	(0.86, 1.40)
Distal Factors										
Maternal Age										
15-25							1.00		1.00	
26-35							0.86	(0.64, 1.17)	0.88	(0.64, 1.19)
36+							0.82	(0.46, 1.48)	0.82	(0.46, 1.48)
Previous Births										
None							1.00		1.00	
1							1.07	(0.76, 1.49)	1.06	(0.76, 1.48)
>1							1.06	(0.75, 1.51)	1.05	(0.74, 1.49)
Socio-Economic Index (1-22)										
1-6							1.00		1.00	
7-12							0.86	(0.66, 1.13)	0.86	(0.66, 1.13)
13-22							1.23	(0.84, 1.82)	1.27	(0.86, 1.87)
Mother Education										
Illiterate							1.00		1.00	
Literate							0.91	(0.70, 1.18)	0.91	(0.70, 1.18)
Prenatal Care										
No							1.00		1.00	
Yes							0.92	(0.72, 1.17)	0.91	(0.71, 1.16)
Cohort										
1			1.00		1.00		1.00		1.00	
2			1.51	(1.11, 2.03)	1.22	(0.86, 1.73)	1.52	(1.12, 2.07)	1.22	(0.86, 1.74)
Sub-District										
Katiadi			1.00		1.00		1.00		1.00	
Karimganj			1.97	(1.54, 2.51)	1.51	(1.09, 2.10)	2.00	(1.56, 2.55)	1.51	(1.09, 2.11)
Interaction										
Cohort & Sub-District					1.00				1.00	
					1.76	(1.09, 2.83)			1.81	(1.12, 2.92)

Goodness of Fit					
Hosmer & Lemeshow Test χ^2 p-value	0.83	0.22	0.39	0.19	0.95
Cox & Snell R ²	0.01	0.03	0.04	0.04	0.04
Nagelkerke R ²	0.02	0.05	0.05	0.05	0.06

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA). Continuous maternal indices dichotomized by the median cut-point values.

^c Cohort 1 interviews asked respondents to rate attitudes and self-efficacy according to a 1-3 Likert scale. These items were recoded as 1, 3, 5 for comparison to Cohort 2 responses in 1-5 Likert scale.

Table A19: Multivariate Logistic Regression Results for Full Breastfeeding at 3 Months in Karimanj and Katiadi (Continuous Maternal Indices)

	Karimanj				Katiadi			
	Model 1		Model 2		Model 3		Model 4	
	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper
Intention to EBF^a	1.95	(1.15, 3.29)	1.99	(1.17, 3.38)	1.10	(0.79, 1.52)	1.07	(0.76, 1.49)
Maternal Constructs^b								
Positive Attitude Toward Breastfeeding ^c	1.00	(0.98, 1.02)	1.01	(0.99, 1.03)	1.01	(0.99, 1.02)	1.01	(0.99, 1.02)
Self-Efficacy ^c	1.06	(0.99, 1.14)	1.06	(0.99, 1.14)	1.04	(0.98, 1.10)	1.04	(0.98, 1.10)
Breastfeeding Knowledge	0.92	(0.80, 1.06)	0.97	(0.84, 1.13)	1.04	(0.92, 1.17)	1.01	(0.89, 1.15)
Distal Factors								
Maternal Age								
15-25			1.00				1.00	
26-35			0.81	(0.50, 1.29)			0.93	(0.62, 1.40)
36+			0.57	(0.24, 1.34)			1.12	(0.50, 2.52)
Previous Births								
None			1.00				1.00	
1			0.76	(0.44, 1.31)			1.29	(0.82, 2.03)
>1			0.79	(0.44, 1.43)			1.21	(0.77, 1.91)
Socio-Economic Index (1-22)								
1-6			1.00				1.00	
7-12			0.90	(0.59, 1.37)			0.78	(0.54, 1.11)
13-22			1.20	(0.66, 2.21)			1.18	(0.70, 1.97)
Mother Education								
Illiterate			1.00				1.00	
Literate			0.82	(0.55, 1.21)			1.05	(0.74, 1.50)
Prenatal Care								
No			1.00				1.00	
Yes			0.66	(0.46, 0.96)			1.15	(0.82, 1.61)
Cohort								
1	1.00		1.00		1.00		1.00	
2	2.48	(1.49, 4.12)	2.63	(1.56, 4.42)	1.23	(0.86, 1.75)	1.25	(0.87, 1.80)
Goodness of Fit								
Hosmer & Lemeshow Test χ^2 p-value	0.31		0.07		0.89		0.29	
Cox & Snell R ²	0.03		0.04		0.01		0.02	
Nagelkerke R ²	0.04		0.06		0.01		0.02	

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month

Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA).

^c Cohort 1 interviews asked respondents to rate attitudes and self-efficacy according to a 1-3 Likert scale. These items were recoded as 1, 3, 5 for comparison to Cohort 2 responses in 1-5 Likert scale.

**Table A20: Multivariate Logistic Regression Results for Full Breastfeeding at 3 Months in Karimganj and Katiadi
(Categorical Maternal Indices – distribution-based cutpoints)**

	Karimganj				Katiadi			
	Model 1		Model 2		Model 3		Model 4	
	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper	Exp (β) Adjusted OR	95% CI Lower Upper
Intention to EBF^a	1.98	(1.17, 3.34)	2.00	(1.18, 3.41)	1.13	(0.81, 1.57)	1.11	(0.79, 1.55)
Maternal Constructs^b								
Positive Attitude Toward Breastfeeding ^c	1.07	(0.72, 1.59)	1.13	(0.75, 1.70)	1.23	(0.90, 1.70)	1.23	(0.89, 1.70)
Self-Efficacy ^c	1.46	(0.90, 2.37)	1.47	(0.89, 2.42)	1.03	(0.59, 1.78)	1.02	(0.59, 1.78)
Breastfeeding Knowledge	0.71	(0.45, 1.14)	0.85	(0.52, 1.39)	1.02	(0.71, 1.45)	0.94	(0.65, 1.36)
Distal Factors								
Maternal Age								
15-25			1.00				1.00	
26-35			0.80	(0.50, 1.29)			0.95	(0.63, 1.41)
36+			0.56	(0.24, 1.33)			1.10	(0.49, 2.47)
Previous Births								
None			1.00				1.00	
1			0.80	(0.46, 1.37)			1.34	(0.85, 2.11)
>1			0.83	(0.46, 1.48)			1.28	(0.82, 2.01)
Socio-Economic Index (1-22)								
1-6			1.00				1.00	
7-12			0.91	(0.60, 1.39)			0.80	(0.56, 1.13)
13-22			1.21	(0.66, 2.22)			1.21	(0.72, 2.02)
Mother Education								
Illiterate			1.00				1.00	
Literate			0.82	(0.55, 1.21)			1.04	(0.73, 1.48)
Prenatal Care								
No			1.00				1.00	
Yes			0.67	(0.46, 0.97)			1.14	(0.82, 1.60)
Cohort								
1	1.00		1.00		1.00		1.00	
2	2.12	(1.41, 3.21)	2.21	(1.45, 3.36)	1.11	(0.81, 1.52)	1.12	(0.81, 1.53)
Goodness of Fit								
Hosmer & Lemeshow Test χ^2 p-value	0.48		0.51		0.83		0.96	
Cox & Snell R ²	0.03		0.04		0.01		0.01	
Nagelkerke R ²	0.04		0.06		0.01		0.02	

^a Maternal intention to exclusively breastfeed assessed during third trimester of pregnancy during interview at 7 months gestational age (Question 9.1a or 8.3 in two versions of 7-Month Questionnaire).

^b Indices for maternal attitudes (from 15 items), self-efficacy (6 items), and knowledge (6 items) based on simple sums of relevant questions, according to factor analysis (FA). Continuous maternal indices dichotomized by the following cut-point values: strong positive attitudes if > 53 ; high self-efficacy if > 23 ; breastfeeding knowledge if > 2 .

^c Cohort 1 interviews asked respondents to rate attitudes and self-efficacy according to a 1-3 Likert scale. These items were recoded as 1, 3, 5 for comparison to Cohort 2 responses in 1-5 Likert scale.

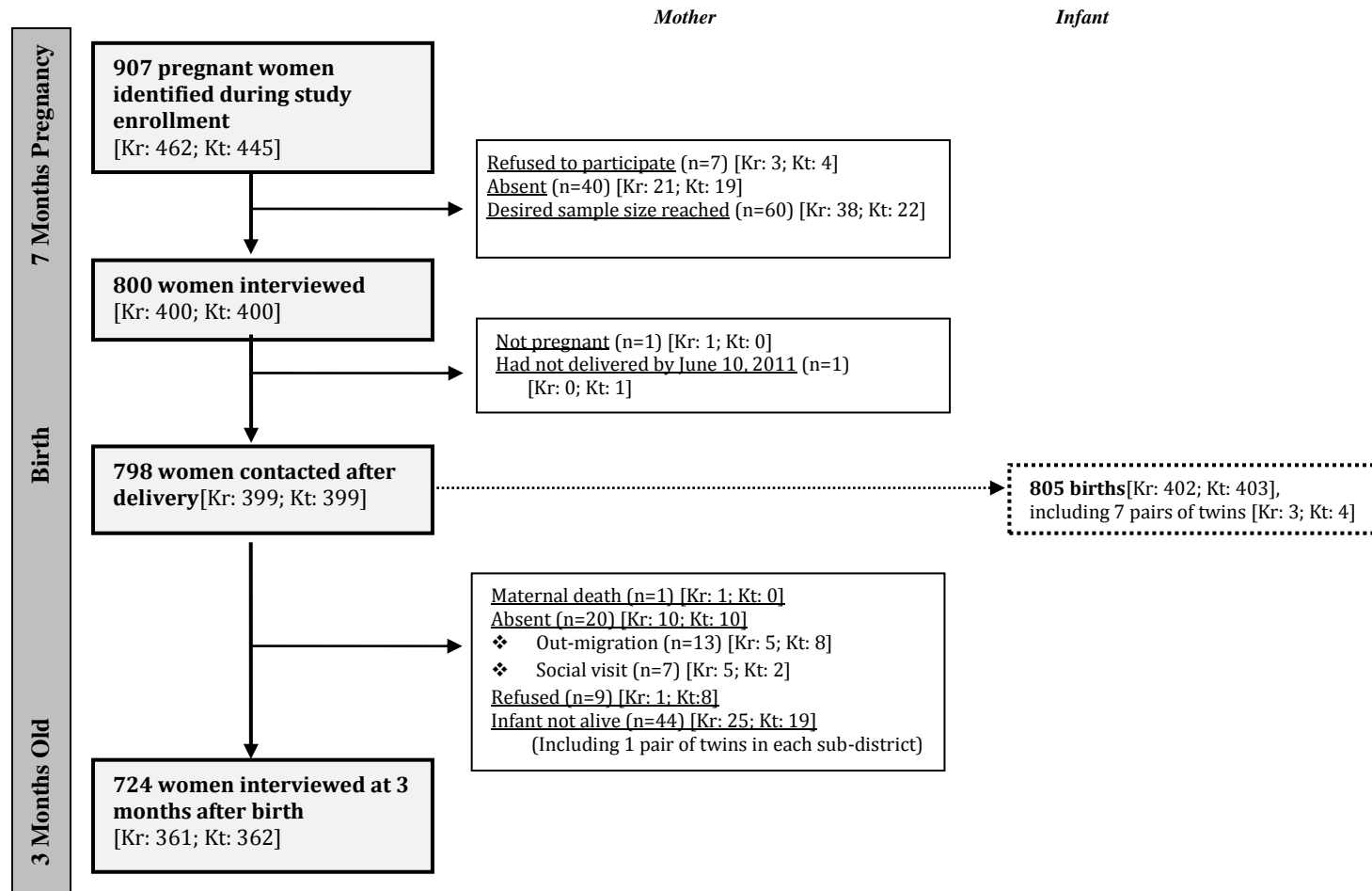
Appendix: Timeline

Fig A2. AKHONI SHOMAY PROJECT - COHORT STUDY TIMELINE

		2011												
		J	F	M	A	M	J	J	A	S	O	N	D	
COHORT 1	Pregnancy Interview	12 Jan- 04 Feb												
	Birth	15 Feb – 12 May												
	3 month (70-120 d)				25 Apr - 21 Aug									
	9 month (240 - 300 d)													
	16 month (450 -540 d)													
	24 month (640 - 730 d)													
COHORT 2	Pregnancy Interview													
	Birth					12 May - 04 Jun								
	3 month (70-120 d)						15 Jun - 27 Sep							
	9 month (240 - 300 d)								23 Aug – 31 Dec					
	16 month (450 -540 d)													
	24 month (640 - 730 d)													

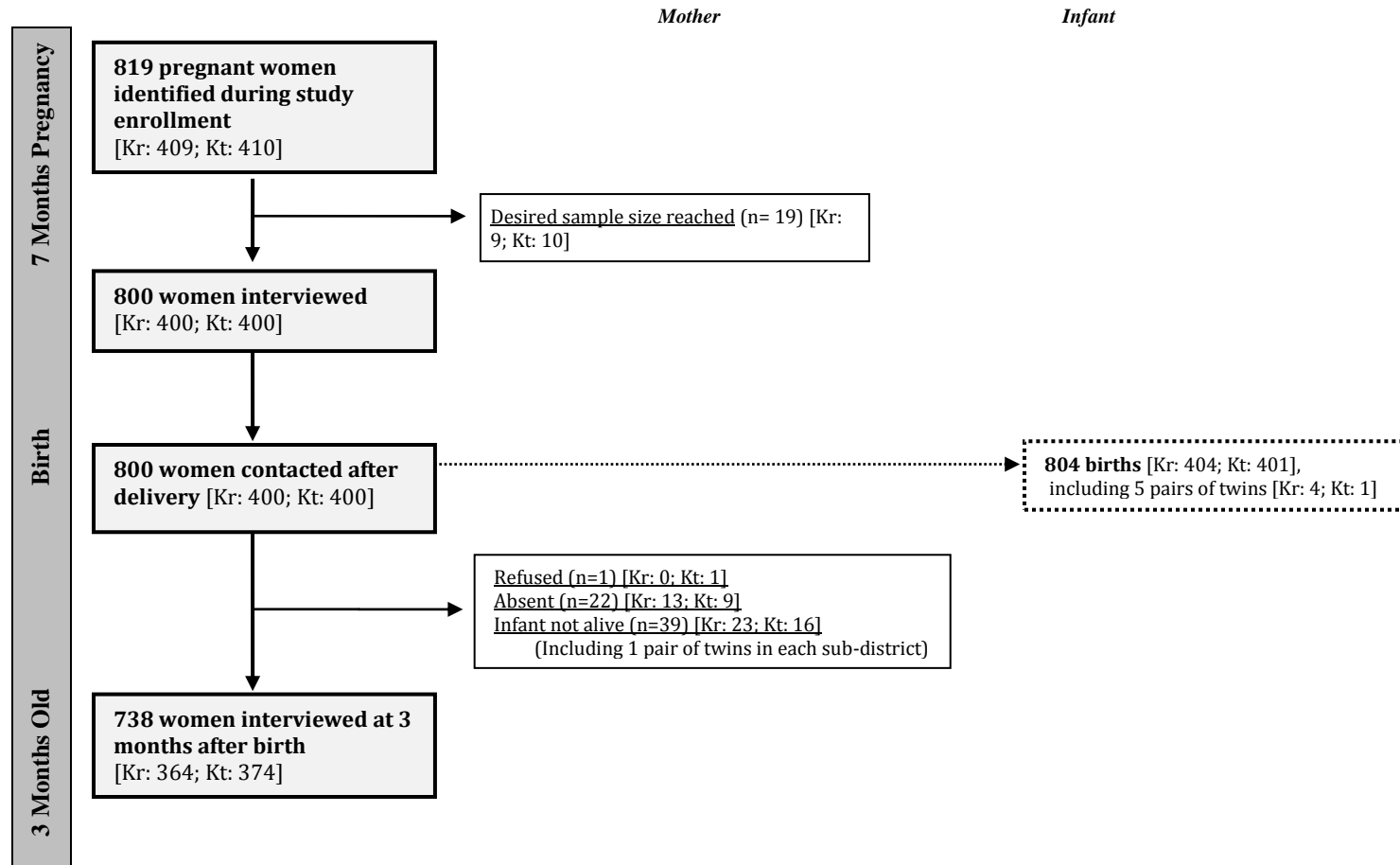
Appendix: Flow Chart

Figure A3: Flow chart of Cohort 1 study subject enrollment and follow-up



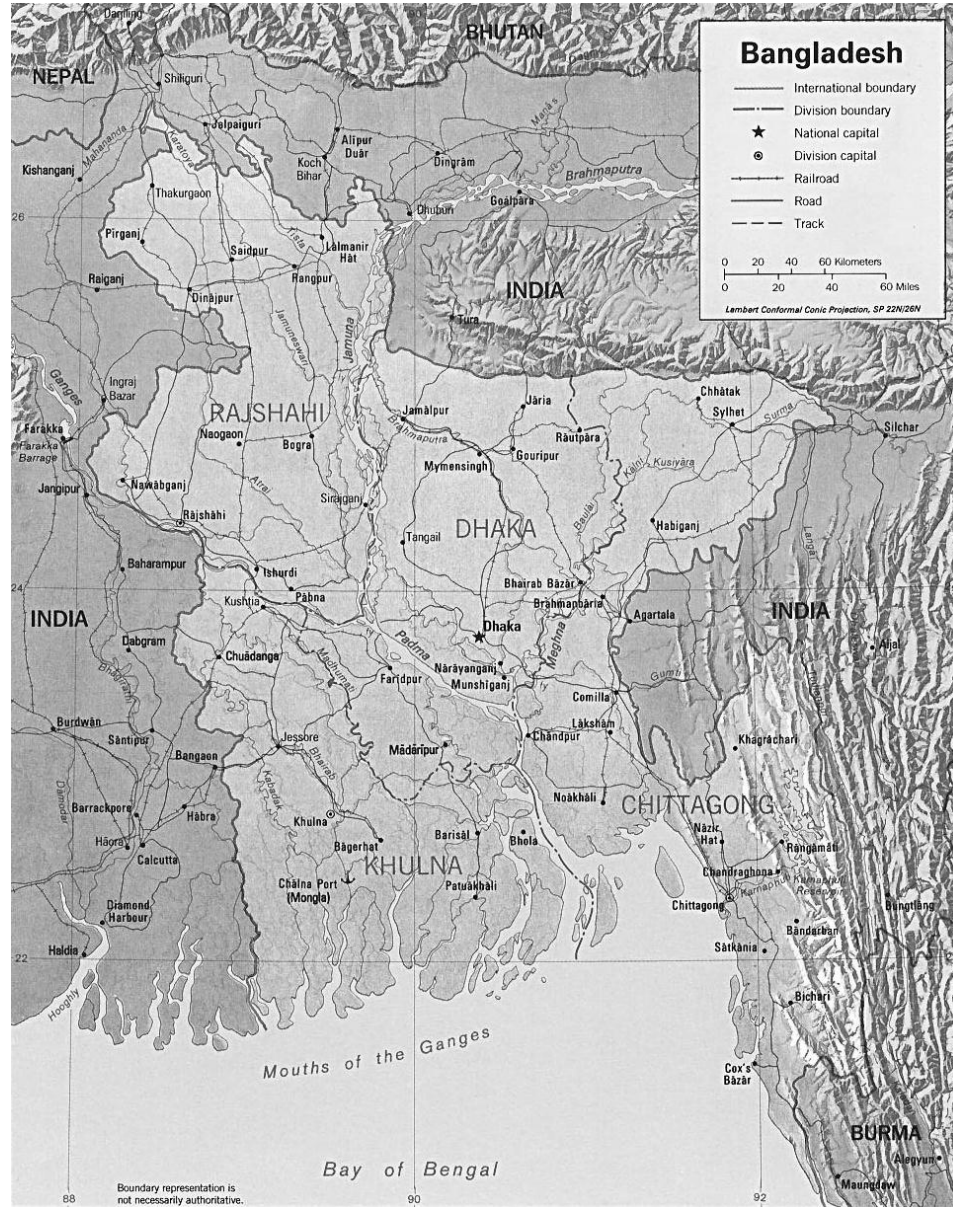
Appendix: Flow Chart

Figure A4: Flow chart of Cohort 2 study subject enrollment and follow-up



Appendix: Map of Study Locations

Figure A5. Map of Karimganj and Katiadi *Upazilas* (Sub-districts) in Kishoreganj District⁵



Available online at: <http://www.lib.utexas.edu/maps/bangladesh.html>

Appendix: Ethical Review Committee Approval Letter



Memorandum

29 December 2010

To: Dr ASG Faruque
Principal Investigator of research protocol # PR-10093
Clinical Sciences Division (CSD)

From: Professor AKM Nurul Anwar
Chairman
Ethical Review Committee (ERC)

Sub: Approval of research protocol # PR-10093

Thank you for your memo dated 28 December 2010 attaching the modified version of your research protocol # PR-10093 entitled "**Monitoring Growth and Nutritional Status of Children in Rural Bangladesh**" addressing the issues raised by the reviewer to the satisfaction of the Committee. Accordingly, the Committee approved the research protocol. I have pleasure to inform you that your above protocol is approved through expedited review mechanism. You will be required to observe the following terms and conditions in implementing the research protocol:

1. As Principal Investigator, the ultimate responsibility for scientific and ethical conduct including the protection of the rights and welfare of study participants vest upon you. You shall also be responsible for ensuring competence, integrity and ethical conduct of other investigators and staff directly involved in this research protocol.
2. You shall conduct the study in accordance with the ERC-approved protocol and shall fully comply with any subsequent determinations by the ERC.
3. You shall obtain prior approval from the Research Review Committee and the ERC for any modification in the approved research protocol and/or approved consent form(s), except in case of emergency to safeguard/eliminate apparent immediate hazards to study participants. Such changes must immediately be reported to the ERC Chairman.
4. You shall recruit/enroll participants for this study strictly adhering to the criteria mentioned in the research protocol.
5. You shall obtain legally effective informed consent (i.e. consent should be free from coercion or undue influence) from the selected study participants or their legally responsible representative, as approved in the protocol, using the approved consent form prior to their enrollment in this study. Before obtaining consent, all prospective study participants must be adequately informed about the purpose(s) of the study, its methods and

procedures, and also what would be done if they agree and also if they do not agree to participate in the study. They must be informed that their participation in the study is voluntary and that they can withdraw their participation any time without any prejudice. Signed consent forms should be preserved for a period of at least five years following official termination of the study.

6. You shall promptly report the occurrence of any Adverse Event or Serious Adverse Event or unanticipated problems of potential risk to study participants or others to the ERC in writing within 24 hours of such occurrences.
7. Any significant new findings, developing during the course of this study that might affect the risks and benefits and thus influence either participation in the study or continuation of participation should be reported in writing to the participants and the ERC.
8. Data and/or samples should be collected and interviews should be conducted, as specified in the ERC-approved protocol, and confidentiality must be maintained. Data/samples must be protected by reasonable security, safeguarding against risks such as their loss or unauthorized access, destructions, used by others, and modification or disclosure of data. Data/samples should not be disclosed, made available to or use for purposes other than those specified in the protocol, and shall be preserved for a period, as specified under Centre's policies/practices.
9. You shall promptly and fully comply with the decision of the ERC to suspend or withdraw its approval for the research protocol.
10. You shall report progress of research to the ERC for continuing review of the implementation of the research protocol as stipulated in the ERC Guidelines. Relevant excerpt of ERC Guidelines and '*Annual/Completion Report for Research Protocol involving Human Subjects*' are attached for your information and guidance.

I wish you success in running the above-mentioned study.

Copy: Director, CSD
Coordination Manager, RA

Appendix: VII. Project Involvement and Responsibilities

Between February-April 2011, I assisted in developing the 3-month questionnaire. As part of the larger study, I also was primarily responsible for developing and coordinating review of the 9- and 16-month questionnaires (during summer 2011 and spring 2012). Additionally, during visits to Bangladesh during May-June 2011, and January 2012, I had the opportunity to observe interviews in Karimganj and Katiadi; as well as work on data analysis.

Study ID

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Monitoring growth and nutritional status of children in rural Bangladesh
Household Questionnaire

Identification*Read: To begin with, I would like to collect some basic identification information from you.*

	Date of Interview:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	Mobile no:	Own <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Request <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Name:
1.1	Name of Mother: _____	Mother Study ID <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
1.2	(MOTHER NAME), in what month and year were you born (month and year)	month 88= Don't Know Month <input type="text"/> <input type="text"/> year 8888= Don't Know Year <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
1.3a	How old were you at your last birthday? <i>(compare with question 1.2 above for consistency)</i>	<input type="text"/> <input type="text"/> Age in completed years -----
1.3b	Do you have a government ID card where your birth date is written down? IF YES: May I see it? Verify age and return to respondent. 01 = Yes 02 = No 03 = No card 88 = Don't Know	<input type="text"/> <input type="text"/>
1.4	Name of Father: _____	
1.5	Name of Head of Household: _____	

Study ID

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1.6	Area:	01= Karimganj 02= Katiadi	<input type="text"/>
1.7	Union/Ward:		<input type="text"/>
1.8	Village/Block/Mohalla:		<input type="text"/>
1.9	Are you planning to move or relocate in the next 6 months?	01 = Yes 02 = No >> Skip to 1.11 88 = Don't know	<input type="text"/>
1.10	How can we best reach you in 6 months? Instructions: Write down new address, or probe for phone number that will not change in 6 months.		<input type="text"/>
1.11	Are you currently attending school?	01 = Yes 02 = No	<input type="text"/>
1.12	What is the last class (grade) of school that you have completed?	Instructions: Insert exact number of years completed. 01 = 1 year 02 = 2 years 03 = 3 years 04 = 4 years 05 = 5 years 06 = 6 years 07 = 7 years 08 = 8 years 09 = 9 years 10 = 10 years 11 = 11 years 12 = 12 years 13 = College (undergraduate) degree 14 = Some college (undergraduate) 15 = Education after college 20=Admitted, but did not complete any class 21= Admitted, but never completed first year	<input type="text"/>

Study ID

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		55 = Religious education only 88 = Don't Know 99 = Not applicable			
1.13	Are you currently working?	01 = Yes 02 = No >> Skip to 2.1 99 = Not Applicable	<table border="1"><tr><td></td><td></td></tr></table>		
1.14	What type of work are you doing?	<i>Instructions: Code for different types of occupations below.</i>	<table border="1"><tr><td></td><td></td></tr></table>		

Study ID

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2. Demographics and Socio-economic Status

Read: Now I am going to ask you a few general questions to better understand your background.

I am going to begin by collecting some information to get a better sense of who lives with you in your household

2.1 Household Schedule

Line no.	Usual resident and visitors	Relationship to head of household	Sex	Residence			Age	Marital Status	Ever attended school	Level of school attended	Current school attendance	Current paid work status	Cu
1	2	3	4	5			6	7	8	9	10	11	
<p>Please give me the names of all the people who usually live in your household including any guests who stayed here last night. Please start with the head of the household.</p> <p>-----</p> <p><i>List the names and record the relationship and sex for each person. Then ask the three questions below (HHL 2.3) the table to make sure the list is correct. Once verified, proceed to record the information required of columns 3-12 (ahead) for each person listed.</i></p>													
		What is the relationship of (NAME) to the head of the household? ----- See codes below	Is (NAME) male or female? ----- 1= male, 2= female	Does (NAME) usually live here? ----- 1=Yes 2=No	Did (NAME) stay here last night? ----- 1=Yes 2=No	How old is (NAME)? ----- (complete year) If age is less than 1 year write '00' 88=Don't Know,	What is (NAME) current marital status? ----- 1=currently married 2=divorced/separated/deserted/widowed 3=never-married 88=Don't Know, 99=Not Applicable	Has (NAME) ever attended school? ----- 1=Yes 2=No 88=Don't Know, 99=Not Applicable	What is the last class (grade) of school that you have completed? ----- See codes below	Is (NAME) currently attending school? ----- 1=Yes 2=No 88=Don't Know, 99=Not Applicable	Is (NAME) currently working? ----- 1=Yes 2=No 88=Don't Know, 99=Not Applicable	Wh wor (N/ cur doi ----- See bel	

Study ID

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Line no.	Usual resident and visitors	Relationship to head of household	Sex	Residence		Age	Marital Status	Ever attended school	Level of school attended	Current school attendance	Current paid work status	Current type of work
01												
02												
03												
04												
05												
06												
07												
08												

Study ID

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09												
10												
11												
12												
13												
14												

Codes for Q.3 (Relationship to head of household).

01= head of household
02=husband/wife
03= son or daughter

04= son-in-law or daughter-in-law
05= grand child

06= parent
07= brother-in-law
08= other relative

09= adopted/foster/step child
10= not related
11=brother/sister
99= don't know

Code for Q9. (Education)

01 = 1 year
02 = 2 years
03 = 3 years
04 = 4 years

05 = 5 years
06 = 6 years
07 = 7 years
08 = 8 years

09 = 9 years
10 = 10 years
11 = 11 years
12 = 12 years

13 = College (undergraduate) degree
14 = Some college (undergraduate)
15 = Education after college
20=Admitted, but did not complete any class

21= Admitted, but never completed first year
55 = Religious education only
88 = Don't Know
99 = Not applicable

Code for Q12 (Occupation)

01=Professional/technical (Doctor, engineer, lawyer, teacher, economist, agriculturist)
02=Large business (>10,000' Taka invested)
03=Small business (<10,000' Taka invested), street vendors
04=Blue collar services:(Factory worker, industry worker, garment worker)

05=White collar services: (Officer, manager, administrator, clerk)
06=Skilled worker (Driver, potter, black smith, gold smith, carpenter, mason, plumber, mechanic)
07=Un-skilled worker (Boatman, fisherman)

08=Day labour (Rickshaw/cart puller, construction worker, daily wage labor)
09=Farmer/share cropper,
10=Domestic maid/house maid
11=House wife
12=Overseas employment
13=Begger

14=Unemployed
15=Student
16=Old aged/inactive
17=Household work
99=Not applicable
77=Other (specify)

Study ID

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HH1: Just to make sure that I have a complete listing. Are there any other people such as small children or infant that we have not listed?

1=Yes, 2=No

HH2: Are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here?

1=Yes, 2=No

HH3: Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed?

1=Yes, 2=No

Now I would like to ask you a few questions about you.

2.2	What is your current marital status?	01 = Married 02 = Single, never married 02 = Single, separated 03 = Single, widowed 04 = Single, divorced 05 = Single, deserted	06 = Other. Please Specify: <hr style="border: 0; border-top: 1px solid black; width: 100%;"/> 88 = Declined to answer 99 = Not Applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
2.3	<p>Now I would like you to read this sentence to me.</p> <p>“The name of our country is Bangladesh. We are citizen of Bangladesh. Bangla is our mother tongue. We live in Kishorganj. We love our country.”</p> <p><i>INSTRUCTIONS: If respondent cannot read the whole sentence, probe:</i></p>					
2.4	Can you read any part of the sentence to me?	01 = Cannot read at all 02 = Can read some of it 03 = Can read whole sentence		<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
2.5	What is your religion?	01= Islam 02= Hinduism 03= Buddhism 04= Christianity 77= Other [specify] -----		<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

Study ID

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3. Household Characteristics

Read: Now I would like to ask you some questions about your home

3.1 Mention sources of water by purpose of use:					
	Drinking	01=Supply water (inside home), 02=Supply water (roadside/ community/point), 03=Shallow TW water (own), 04=Shallow TW water (community), 05=Deep TW water (own), 06=Deep TW water (community), 07=Dug well (pucca & covered), 08=Dug well (open), 09=Rainwater, 10=Protected pond water, 11=Pond/ lake water, 12=River/canal/beel/ditch water, 77=Others (specify _____)		<input type="text"/>	
	Cooking			<input type="text"/>	
	Food stuffs			<input type="text"/>	
	Washing utensils			<input type="text"/>	
3.2 Hand washing practice					
	Purpose	a. Hand washing practice 01=Yes, 02= No	b.Type of agent used 01=Water,02=Mud, 03=Ash, 04=Soap, 99= Not applicable", 77=Others (specify.....)	c. How 01=Left hand, 02=Right hand, 03=Both hand, 99= Not applicable"	d. Source of water 01= Supply water, 02=Tube-well 03=Dug well 04= River/canal/beel/ditch water, , 11=Pond/ lake water, 99=Not applicable" bq, 77=Others (specify_____)
	Before food preparation	<input type="text"/>	<input type="text"/> 77=Others (specify).....)	<input type="text"/>	<input type="text"/> 77=Others (specify).....)
	Before taking meal	<input type="text"/>	<input type="text"/> 77=Others (specify) (specify.....)	<input type="text"/>	<input type="text"/> 77=Others (specify)
	Before feeding the child	<input type="text"/>	<input type="text"/> 77=Others (specify.....)	<input type="text"/>	<input type="text"/> 77=Others (specify).....)
	After helping in defecation of the child	<input type="text"/>	<input type="text"/> 77=Others (specify.....)	<input type="text"/>	<input type="text"/> 77=Others (specify).....)
	After using the toilet	<input type="text"/>	<input type="text"/> 77=Others (specify.....)	<input type="text"/>	<input type="text"/> 77=Others (specify).....)
3.3	Do you do anything to the water	1=Yes		<input type="text"/>	

Study ID

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	to make sure it is safe to drink?	2=No >>3.5 88=Don't Know													
3.4	What do you usually do to make sure the water is safe to drink? <i>INSTRUCTIONS: Record all responses that apply</i> 1=Yes 99= Not applicable	Boil water Treat with bleach/chlorine/use purify tablet/strain through a cloth Use water filter (ceramic/sand/composite/etc) Let it stand and settle Other[Specify]----- Don't know	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>												
3.5	What kind of toilet facility do members of your household usually use?	01=Flush latrine, 02=Pour flush latrine, 03=Ventilated improved pit (VIP) latrine, 04=Ventilated improved pit (VIP) latrine with water seal, 05=Traditional pit latrine, 06=Hanging latrine, 07=No facility: No latrine/jungle/bush/ground/open space, 77=Others(specify _____)	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>												
3.6	Do you share this toilet facility with other households?	1=Yes 2=No>>3.8 99= Not applicable	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>												
3.7	How many people use this toilet facility?	99= Not applicable	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>												
3.8	Does your household have: <i>INSTRUCTIONS: Please circle the correct response number for each</i> 1=Yes, 2=No		1=Yes, 2=No												
	Electricity/solar/generator	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>			Radio	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>									
	Television	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>			Mobile telephone	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>									
	Non-mobile telephone	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>			Refrigerator	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>									
	Almirah	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>			Table	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>									
	Chair	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>			Watch	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>									
	Motorcycle	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>			Bicycle	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>									
	Animal-drawn cart	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>			Car/truck	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>									
				<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>											

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	Boat with motor <input type="text"/> Cot <input type="text"/> Tempoo/shallow <input type="text"/> Other (specify)----- <input type="text"/>	Rickshaw/van Power tillar/tractor <input type="text"/> Sewing machine <input type="text"/>	
3.9	What type of fuel does your household mainly use for cooking?	01= Electricity, 02=LPG, 03= Natural gas, 04= Biogas, 05= Kerosene, 06= Coal/lignite, 07= Charcoal, 08= Wood, 09= Straw/ shrubs/grass (including leaves), 10= Agricultural crop residual, 11= Animal dung (including cow), 77=Other (specify -----)	<input type="text"/>
3.10	What type of cooking stove is mainly used in your house?	01= Kerosene stove 02= Gas stove 03= Open fire 04= Open fire or stove with chimney or hood 05= Closed stove with chimney 77=Other[Specify]_____	<input type="text"/>
3.11	Where is cooking usually done?	01 =In a room used for living or sleeping 02= In a separate room in the same building used as kitchen 03= In a separate building used as kitchen 04= Outdoors 77= Other [Specify] _____	<input type="text"/>
3.12	Main material of the floor: <i>INSTRUCTIONS: Record observation</i>	01= Earth/sand, 02= Wood, 03= Stone-brick 04= Cement, 05=Tile, 06= Vinyl strips, 07= Bamboo, 77= Other (Specify) _____	<input type="text"/>
3.13	Main material of the roof: <i>INSTRUCTIONS: Record observation</i>	01= Cement blocks 02= Bricks/cement/concrete 03= Timber/wood, 04= Tin, 05= Dirt, 06= Straw/coconut leaves/ branches, 07= Bamboo, 08 = Poly paper, 09	<input type="text"/>

Study ID

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		= Jute 77= Other (specify) _____							
3.14	Main material of the exterior walls: <i>INSTRUCTIONS: Record observation</i>	01= Cement blocks 02= Bricks/cement/concrete 03= Timber/wood, 4= Tin, 5= Dirt 06= Straw/coconut leaves/branches 07= Bamboo 77= Other (specify) _____	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>						
3.15	How many rooms in this household are used for sleeping?	Rooms.....	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>						
3.16	Does this household own any livestock, herds, other farm animals, or poultry?	01= Yes 02=No >> Skip to 3.18	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>						
3.17	How many of the following animals does this household own? <i>INSTRUCTIONS: if none enter '00'</i> <i>if more than 95. Enter '95'</i> <i>if unknown, enter '88', 99=Not Applicable</i> Cows/Bulls/Bufalos Goats/Sheep Chicken/Ducks	<table border="1" style="width: 60px; height: 60px; margin: auto;"><tr><td style="width: 30px; height: 30px;"></td><td style="width: 30px; height: 30px;"></td></tr><tr><td style="width: 30px; height: 30px;"></td><td style="width: 30px; height: 30px;"></td></tr><tr><td style="width: 30px; height: 30px;"></td><td style="width: 30px; height: 30px;"></td></tr></table>							
3.18	Do you have any land of your own?	01=Yes 02=No 99=Not applicable	if 2, skip to section 4 <table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>						
3.19	If Yes, mention Dwelling: 01=Yes, 02=No, 9999=Not applicable, 8888=Don't Know area _____	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>			Decimal <table border="1" style="width: 60px; height: 20px; margin: auto;"><tr><td style="width: 15px; height: 20px;"></td><td style="width: 15px; height: 20px;"></td><td style="width: 15px; height: 20px;"></td><td style="width: 15px; height: 20px;"></td></tr></table>				
	Agricultural: 01=Yes, 02=No, 9999=Not applicable, 8888=Don't Know area _____	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>			<table border="1" style="width: 60px; height: 20px; margin: auto;"><tr><td style="width: 15px; height: 20px;"></td><td style="width: 15px; height: 20px;"></td><td style="width: 15px; height: 20px;"></td><td style="width: 15px; height: 20px;"></td></tr></table>				

Study ID

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4.1 Food Security and Maternal Diet and Nutrition

Q-01.	During the last 30 d, at what interval has your household purchased rice?	1. Did not buy 2. 1–3 times the last 30 d 3. Once in 7 d 4. 2–3 times in 7 d 5. At least 4–5 times in 7 d	<input type="checkbox"/>
Q-02.	During the last 30 d, at what interval has your household purchased "kanchabajar"? (Note: "kanchabajar" refers to shopping of perishable food items such as vegetables, fish and meat.)	1. Did not buy 2. 1–3 times the last 30 d 3. Once in 7 d 4. 2–3 times in 7 d 5. At least 4–5 times in 7 d	<input type="checkbox"/>
Q-03.	During the last 30 d, how many times a day did cooking usually take place in your household?	1. Never 2. Once a day 3. Twice a day 4. Three times a day 5. Four times or more	<input type="checkbox"/>
Q-04.	During the last 30 d, has your household helped others with cash or food items (like rice) for enabling them to make a meal? (If the woman is rich, tell her that we need to ask this question of everybody, so she does not mind.)	1= Yes 2=No	<input type="checkbox"/>
Q-05.	During the last 30 d, how often has your household had to borrow from others to make a meal?	1. Never 2. 1–3 times in the last 30 d 3. Once in 7 d 4. 2–3 times in 7 d 5. At least 4–5 times in 7 d	<input type="checkbox"/>
Q-06.	Have you paid back or do you think you can pay back?	1= Yes 2=No	<input type="checkbox"/>
Q-07.	During the last 30 d, how many times on average have you had a fulfilling meal in a day when you did not lack appetite?	1. One time 2. Two times 3. Three times 4. Four times	<input type="checkbox"/>
Q-08.	During the last 30 d, how often has it happened that you could NOT eat as many fulfilling meals as you would like to have done when you did not lack appetite?	1. Never 2. 1–3 times the last 30 d 3. Once in 7 d 4. 2–3 times in 7 d 5. At least 4–5 times in 7 d	<input type="checkbox"/>
Q-09.	For the last 30 d, did you usually have snacks in between meals when you did not lack appetite?	1. No 2. Three times or more 3. Once or twice	<input type="checkbox"/>
Q-10.	For the last 30 d, how often did you have fish when you did not lack appetite? (If the woman is rich, tell her that we	1. Not once 2. 1–3 times the last 30 d	<input type="checkbox"/>

Study ID

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	need to ask this question of everybody, so she does not mind.)	3.Once in 7 d 4.2-3 times in 7 d 5.At least 4-5 times in 7 d	
Q-11.	During the last 30 d, how often have you had to eat rice with just chili and salt even if you did not lack appetite?	1.Did not have to 2.1-3 times the last 30 d 3.Once in 7 d 4.2-3 times in 7 d 5.At least 4-5 times in 7 d	<input type="checkbox"/>

Read: Now I would like to ask you some questions regarding your diet and nutrition. I would like to record any liquids or foods that you had yesterday during the day or at night.

4.2	<i>Did you (drink/eat):</i>		
	<i>A. Plain water?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>B. Sugar water/honey/juice</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>C. Cow's or goat's milk or yogurt?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>D. Other liquid?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>E. Papaya/mango?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>F. Dark green leafy vegetables?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>G. Other fruits and vegetables?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>H. Rice, wheat, porridge, bread?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>I. Meat</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>J. Organ meat (such as liver)</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>K. Fish/eggs?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
	<i>L. Dal?</i>	1= Yes, 2=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>

Study ID

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	<i>M. Others foods?</i>	1= Yes, 2=No 88=Don't know	<input type="text"/>
4.3	<i>Have you taken any iron tablets or iron syrup during this pregnancy?</i>	1= Yes, 2=No 88=Don't know	<input type="text"/>
4.4	If 'Yes' how many days have you taken them for?	Days ----- 999=Not applicable	

5. Pregnancy

Read: Now I would like to ask you some questions regarding your experiences with pregnancy and breastfeeding.

5.1	Have you ever given birth?	01= Yes 02= No >> go to Section 6	<input type="text"/>
5.2	How many times have you given birth, including all live and stillbirths?	(Record number)-----	<input type="text"/>
5.3	How many times have you given stillbirths?	(Record number)-----	<input type="text"/>
5.4	How many times have you given live births?	(Record number)-----	<input type="text"/>
5.5	How many of these were:	Boys ----- Girls -----	<input type="text"/> <input type="text"/>
5.6	Have you ever given birth to a boy or girl who was born alive but died later? <i>INSTRUCTIONS: Please probe: This includes any baby who cried or showed signs of life but did not survive?</i>	01= Yes 02= No >> Skip to 5.8	<input type="text"/>
5.7	How many boys have died? How many girls have died? <i>INSTRUCTIONS: If none, record '00'</i>	Boys dead ----- Girls dead -----	<input type="text"/> <input type="text"/>

Study ID

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Read: Now I'd like to record the names of all your births, whether still alive or not starting with the first one you had. I would like to collect information on your breastfeeding experience with each child.

5.8	5.9	5.10	5.11	5.12	5.13	5.14	5.15	5.16	5.17	5.18
What name was given to your (first-birth ever/ last birth /and second-to-last birth) baby?	Is (NAME) a boy or girl? ----- 1=boy 2=girl	In what month and year was (NAME) born? ----- ----- (verify the DOB)	Is (NAME) still alive? ----- If 'No' skip to Q:5.12 01=Yes 02=No>> 5.12	IF ALIVE: How old was (NAME) at his/her last birthday? ----- If less than one year recode '00' Recode in full year	IF ALIVE: Is (NAME) living with you today? ----- 01=Yes 02=No	IF DEAD: How old was (NAME) when s/he died? IF '1 YR PROBE': How many months old was (NAME)? ----- *If less than 1 days recode hour *Recode days if less than 1 month *Recode months if less than two years or 1 year * Recode year if more than two years 99=Not applicable	What did (NAME) die from? See codes below	Did you ever breastfeed (NAME)? ----- 01=Yes 02=No>> section 6 99=Not applicable	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HR, RECORD '00' HRS. IF LESS THAN 24 HR, RECORD HRS, OTHERWISE, REOCRD DAYS ----- 99=Not applicable	Colostrum is the first milk-like substance, thick, yellow/cream in color, produced during the first few days after birth (2-4 days). Was (NAME) given colostrum immediately after his/her birth? ----- 01=Yes 02=No 99=Not applicable

Study ID

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5.6	5.7	5.8	5.9	5.10	5.11	5.12	5.13	5.14	5.15	5.16
FIRST-CHILD-EVER (first born)	<input type="checkbox"/>	Month <input type="text"/> <input type="text"/> Year <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/>	Hour <input type="text"/> <input type="text"/> Days <input type="text"/> <input type="text"/> Month <input type="text"/> <input type="text"/> Year <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/>	Soon 00 <input type="text"/> <input type="text"/> Hour <input type="text"/> <input type="text"/> Days <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
LAST BIRTH	<input type="checkbox"/>	Month <input type="text"/> <input type="text"/> Year <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/>	Hour <input type="text"/> <input type="text"/> Days <input type="text"/> <input type="text"/> Month <input type="text"/> <input type="text"/> Year <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/>	Soon 00 <input type="text"/> <input type="text"/> Hour <input type="text"/> <input type="text"/> Days <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
SECOND-TO-LAST BIRTH	<input type="checkbox"/>	Month <input type="text"/> <input type="text"/> Year <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/>	Hour <input type="text"/> <input type="text"/> Days <input type="text"/> <input type="text"/> Month <input type="text"/> <input type="text"/> Year <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/>	Soon 00 <input type="text"/> <input type="text"/> Hour <input type="text"/> <input type="text"/> Days <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Code for O. 5.13

01= Birth asphyxia, 02= Premature/low birth weight, 03= Sepsis/ meningitis, 04=Respiratory distress syndrome, 05= Pneumonia, 06=Accident-----, 77= Other (specify),-----, 88=Don't know

Study ID

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5.17	5.18		5.19	5.20	5.21	5.22																																													
<p>In the first three days after delivery, was (NAME) given anything to drink other than breast milk?</p> <p>01= Yes, 02= No, 99=Not Applicable</p>	<p>What was (NAME) given to drink during the first few months?</p> <p>RECORD ALL LIQUIDS MENTIONED</p> <p>PROBE: Anything else?</p> <p>99=Not Applicable</p>		<p>Are you still breastfeeding (NAME)?</p> <p>01= Yes 02= No</p>	<p>For how many months did you breastfeed (NAME) for?</p>	<p><i>Read: Exclusive breastfeeding is termed as not giving anything (no water, other milk, honey, mustard oil, sugar...) other than breast milk to your baby for 6 complete months.</i></p> <p>Given this definition do you believe you exclusively breastfeed (NAME)?</p>	<p>How would you rate your overall breastfeeding experience with (NAME) on a scale from 1 to 5. 1 being 'very bad, will never again breast feed, and 5 being 'very good, will continue to breastfeed future children'?</p> <p>Please think about family support, breastfeeding problems/difficulties, and other barriers when choosing your answer.</p>																																													
<p>FIRST-CHILD-EVER (first born)</p> <p><input type="checkbox"/> <input type="checkbox"/></p>	<table border="1"> <tr><td>Only breastfeed</td><td></td></tr> <tr><td>Milk (other than breast milk)</td><td></td></tr> <tr><td>Plain water</td><td></td></tr> <tr><td>Sugar/glucose water</td><td></td></tr> <tr><td>Sugar-salt solution</td><td></td></tr> <tr><td>Fruit juice</td><td></td></tr> <tr><td>Infant formula</td><td></td></tr> <tr><td>Tea/infusions</td><td></td></tr> <tr><td>Honey</td><td></td></tr> <tr><td>Mustard oil</td><td></td></tr> <tr><td>Other</td><td></td></tr> <tr><td>[Specify]-----</td><td></td></tr> <tr><td>Don't know</td><td></td></tr> </table>	Only breastfeed		Milk (other than breast milk)		Plain water		Sugar/glucose water		Sugar-salt solution		Fruit juice		Infant formula		Tea/infusions		Honey		Mustard oil		Other		[Specify]-----		Don't know		<p><input type="checkbox"/> <input type="checkbox"/></p>	<p><input type="checkbox"/> <input type="checkbox"/></p> <p>Days</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>Month</p> <p>88=Don't know 99=Not Applicable</p>	<p>1= Yes, 2= No, 99=Not Applicable</p>	<table border="0"> <tr> <td>Very bad</td> <td>Bad</td> <td>So so</td> <td>Good</td> <td>Very good</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/></td> <td></td> <td></td> </tr> </table>	Very bad	Bad	So so	Good	Very good						1	2	3	4	5			<input type="checkbox"/>		
Only breastfeed																																																			
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Very bad	Bad	So so	Good	Very good																																															
1	2	3	4	5																																															
		<input type="checkbox"/>																																																	

Study ID

5.17	5.18		5.19	5.20	5.21	5.22					
LAST BIRTH <input type="text"/> <input type="text"/>	Only breastfeed	<input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	01= Yes, 02= No, 99=Not Applicable	Very bad	Bad	So so	Good	Very good	
	Milk (other than breast milk)	<input type="text"/>		Day		<input type="text"/> <input type="text"/>	1	2	3	4	5
	Plain water	<input type="text"/>		Month		<input type="text"/>			<input type="text"/>		
	Sugar/glucose water	<input type="text"/>		88=Don't know							
	Sugar-salt solution	<input type="text"/>		99=Not Applicable							
	Fruit juice	<input type="text"/>									
	Infant formula	<input type="text"/>									
	Tea/infusions	<input type="text"/>									
	Honey	<input type="text"/>									
	Mustard oil	<input type="text"/>									
	Other [Specify]-----	<input type="text"/>									
	Don't know	<input type="text"/>									
	SECOND-TO-LAST BIRTH	Only breastfeed		<input type="text"/>		<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	01= Yes, 02= No, 99=Not Applicable	Very bad	Bad	So so
Milk (other than breast milk)		<input type="text"/>	Day	<input type="text"/> <input type="text"/>	1		2		3	4	5
Plain water		<input type="text"/>	Month	<input type="text"/>					<input type="text"/>		
Sugar/glucose water		<input type="text"/>	88=Don't know								
Sugar-salt solution		<input type="text"/>	99=Not Applicable								
Fruit juice		<input type="text"/>									
Infant formula		<input type="text"/>									
Tea/infusions		<input type="text"/>									
Honey		<input type="text"/>									
Mustard oil		<input type="text"/>									
Other [Specify]-----		<input type="text"/>									
Don't know		<input type="text"/>									

Study ID

6. Access to Antenatal Care Services and Other Sources of Breastfeeding Support

Read: Now I would like to ask you some questions about your CURRENT pregnancy.

6.1	During <u>this</u> pregnancy, did you receive any counseling or information about nutrition for pregnant women?	01=Yes 02=No 88=Don't know	<input type="text"/>
6.2	Was this counseling during an ANC visit?	01=Yes 02=No 88=Don't know	<input type="text"/>
6.3	<p>Who did you receive counseling from?</p> <p><i>INSTRUCTIONS: Even if participant answered 'yes' above to ANC counseling, please record 'who' offered the counseling.</i></p> <p><i>For those who did not receive counseling at an ANC visit, please record all which apply.</i></p> <p>01= Yes 99=Not Applicable (If not responded)</p>	<p>Hospital/Upazila Health Center, Clinic</p> <p>Doctor <input type="text"/></p> <p>Govt. Health Worker (FWA/HA) <input type="text"/></p> <p>IYCF Promoter <input type="text"/></p> <p>TBA <input type="text"/></p> <p>Husband <input type="text"/></p> <p>Mother/Mother in law <input type="text"/></p> <p>Other Family members <input type="text"/></p> <p>Religious Leader <input type="text"/></p> <p>Other[Specify] <input type="text"/></p>	<p>Midwife/nurse <input type="text"/></p> <p>Smily sun <input type="text"/></p> <p>BRAC SK <input type="text"/></p> <p>Other NGO Workers <input type="text"/></p> <p>Village Doctor <input type="text"/></p> <p>Pharmacy <input type="text"/></p> <p>Neighbors/ Friends <input type="text"/></p> <p>Union Parishad Female Member <input type="text"/></p> <p>School Teacher <input type="text"/></p> <p>Nobody/Never needed advice <input type="text"/></p> <p>Homiopathy <input type="text"/></p>
6.4	During <u>this</u> pregnancy, did you receive any counseling about breastfeeding infants and young children?	01=Yes 02=No 88=Don't know	<input type="text"/>
6.5	<p>Who did you receive this counseling from?</p> <p><i>INSTRUCTIONS: Please record all that apply</i></p> <p>01= Yes 99=Not Applicable (If not</p>	<p>Hospital/Upazila Health Center, Clinic</p> <p>Doctor <input type="text"/></p> <p>Govt. Health Worker (FWA/HA) <input type="text"/></p> <p>IYCF Promoter <input type="text"/></p>	<p>Midwife/nurse <input type="text"/></p> <p>Smily sun <input type="text"/></p> <p>BRAC SK <input type="text"/></p> <p>Other NGO Workers <input type="text"/></p>

Study ID

	responded)	TBA Husband <input type="checkbox"/> <input type="checkbox"/> Mother/Mother in law <input type="checkbox"/> <input type="checkbox"/> Other Family members <input type="checkbox"/> <input type="checkbox"/> Religious Leader <input type="checkbox"/> <input type="checkbox"/> Other[Specify]	Village Doctor <input type="checkbox"/> <input type="checkbox"/> Pharmacy <input type="checkbox"/> <input type="checkbox"/> Neighbors/ Friends <input type="checkbox"/> <input type="checkbox"/> Union Parisad Female Member <input type="checkbox"/> <input type="checkbox"/> School Teacher <input type="checkbox"/> <input type="checkbox"/> Nobody/Never needed advice <input type="checkbox"/> <input type="checkbox"/> Homiopathy <input type="checkbox"/> <input type="checkbox"/>
6.6	During this pregnancy, did you receive any counseling on feeding infants and young children, other than advice related to breastfeeding?	01=Yes 02=No 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
6.7	Who did you receive this counseling from? Access to support: <i>INSTRUCTIONS: Please record all that apply</i> 01= Yes 99=Not Applicable (If not responded)	Hospital/Upazila Health Center, Clinic Doctor <input type="checkbox"/> <input type="checkbox"/> Govt. Heath Worker (FWA/HA) <input type="checkbox"/> <input type="checkbox"/> IYCF Promoter <input type="checkbox"/> <input type="checkbox"/> TBA <input type="checkbox"/> <input type="checkbox"/> Husband <input type="checkbox"/> <input type="checkbox"/> Mother/Mother in law <input type="checkbox"/> <input type="checkbox"/> Other Family members <input type="checkbox"/> <input type="checkbox"/> Religious Leader <input type="checkbox"/> <input type="checkbox"/> Other[Specify]	Midwife/nurse Smily sun <input type="checkbox"/> <input type="checkbox"/> BRAC SK <input type="checkbox"/> <input type="checkbox"/> Other NGO Workers <input type="checkbox"/> <input type="checkbox"/> Village Doctor <input type="checkbox"/> <input type="checkbox"/> Pharmacy <input type="checkbox"/> <input type="checkbox"/> Neighbors/ Friends <input type="checkbox"/> <input type="checkbox"/> Union Parisad Female Member <input type="checkbox"/> <input type="checkbox"/> School Teacher <input type="checkbox"/> <input type="checkbox"/> Nobody/Never needed advice <input type="checkbox"/> <input type="checkbox"/> Homiopathy <input type="checkbox"/> <input type="checkbox"/>

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7. Breastfeeding Knowledge
Now I would like to ask you some questions regarding breastfeeding in general.

7.1	How long after birth should a baby start breastfeeding?	01= Immediately 02= Less than 1 hour after delivery 03= Some hours later but less than 24 hrs 04=1 day later 05= More than 1 day later 06= Do not think baby should be breastfeed 88= Don't know	<input type="checkbox"/> <input type="checkbox"/>
7.2	What should a mother do with the "first milk" or colostrum?	01= Throw it away and start breastfeeding when the real milk comes in 02= Give it to her baby by breastfeeding soon after birth 88= Don't know 77= Other [Specify]-----	<input type="checkbox"/> <input type="checkbox"/>
7.3	Do you think that a mother with small breasts can produce enough milk to feed her infant?	1= Yes, 2= No, 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
7.4	Do you think that a mother who hasn't eaten enough can produce sufficient milk to feed her infant?	1= Yes, 2= No, 88=Don't know	<input type="checkbox"/> <input type="checkbox"/>
7.5	How can you tell when a baby is hungry?	01= When the baby sucks his/her fingers 02= When the baby becomes agitated 03= When the baby looks for the breast 04= When the baby cries 88= Don't know 77= Other [Specify]-----	<input type="checkbox"/> <input type="checkbox"/>
7.6	How often should a baby breastfeed?	01= Whenever the baby wants 02= When you see the baby is hungry 03= When the baby cries 88= Don't know 77= Other [Specify]-----	<input type="checkbox"/> <input type="checkbox"/>
7.7	If a mother thinks her baby is not getting enough breast milk, what should she do? <i>INSTRUCTIONS: Please record all that apply</i> 01= Yes 99=Not Applicable (If not responded)	Breastfeed more often/more frequently Give other liquids/food Mother needs to drink more water Mother needs to eat more food Cow's milk Taking advice (doctor/neighbor/other household member) Don't know Other [Specify]-----	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Study ID

7.8	Do you think that infants under 6 months of age should be given water if the weather is very hot?	1= Yes, 2= No, 88=Don't know	<input type="text"/> <input type="text"/>
7.9	Do you think a mother should stop breastfeeding her child if she (the mother) becomes ill, and start breastfeeding again only after she becomes better?	1= Yes, 2= No, 88=Don't know	<input type="text"/> <input type="text"/>
7.10	At what age should a baby first start to receive liquids (including water) other than breast milk	Months ----- 88=Don't know	<input type="text"/> <input type="text"/>
7.11	At what age should a baby first start to receive foods in addition to breast milk?	Months ----- 88=Don't know	<input type="text"/> <input type="text"/>
7.12	What are some reasons why a young baby should be exclusively breastfed? <i>INSTRUCTIONS: Make sure respondent is clear on definition of 'exclusive breastfeeding'. If necessary, read definition offered in Module 4. If necessary, read definition offered in Module 5.21.</i> <i>INSTRUCTIONS: Please record all that apply</i> 01= Yes 99=Not Applicable (If not responded)	Protects baby from illness Helps baby grow better Breast milk contains everything a baby needs for the first 6 months Mother less likely to get pregnant Delayed return of mother's menstrual cycle Breast milk is clean, safe, convenient Breast milk is affordable Reduces health care costs Other [Specify]----- Don't know	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
7.13	Up to what age should a baby continue to be breastfed?	Months ----- 88= Don't know	<input type="text"/> <input type="text"/>
7.14	What should you do when your child has diarrhea? <i>INSTRUCTIONS: Please record all that apply</i> 01= Yes 99=Not Applicable (If not responded)	Continue breastfeeding Breastfeed less than usual Breastfeed more than usual Give less liquids than usual Give as much liquids as usual Give more liquids than usual Give syrups	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

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		Give traditional medicine Give treated water Give carrot juice or rice water Give Zinc ORS Don't know Other [Specify]-----	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																				
7.15	<p><i>What should you do (in relation to feeding) AFTER your child has recovered from diarrhea or another illness?</i></p> <p><i>INSTRUCTIONS: Please record all that apply</i> 01= Yes 99=Not Applicable (If not responded)</p>	Continue breastfeeding Breastfeed less than usual Breastfeed more than usual Feed an extra meal every day for 2 weeks Give more liquids than usual Give nutritious food Drug/vitamin Don't know Other [Specify]-----	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																				

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8. Intentions to Breastfeed

Read: I am going to ask you some questions about your plans to feed your baby. Please choose the answer that most clearly matches your opinion considering both your feeding plans and the likelihood that you will carry out those plans.

8.1	<p>Do you plan to breastfeed your baby at all?</p>	<p>01=Yes 02=No >>9 03=Not planning 88=Don't know</p>	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
8.2	<p>Do you plan to only/exclusively breastfeed your baby? <i>This means not giving the baby anything else to drink or eat besides breast milk</i></p>	<p>01=Yes 02=No >>8.4 88=Don't know</p>	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
8.3	<p>For how long do you plan to only or exclusively breastfeed your baby?</p> <p><i>INSTRUCTIONS: Record the number of months reported. If '1 month', record '01'. If '>12 months', record '>12' and specify how long in months for instance if 15 months, enter '15m'</i></p> <p><i>If less than '1 month' record number of days followed by 'd' for example 20 days should be entered as '20 d'</i></p>	<p>01 month 07 months 02 months 08 months 03 months 09 months 04 months 10 months 05 months 11 months 06 months 12 month >12 months (please specify)</p>	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
8.4	<p>Will you give your baby something other than breast milk?</p>	<p>01= Yes, 02=No>> 9, 88=Don't know</p>	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
8.5	<p>At what age do you plan to begin giving your baby other foods?</p>	<p>01 month 07 months 02 months 08 months 03 months 09 months 04 months 10 months 05 months 11 months 06 months 12 month >12 months (please specify)</p>	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
8.6	<p>What sort of foods do you plan to give your baby at that point?</p> <p><i>INSTRUCTIONS: If unclear as to when that point is- clarify by referring to respondent's answer above.</i></p> <p>01= Yes 99=Not Applicable (If not response)</p>	<p>Animal milk (other than breast milk) <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Plain water <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Sugar/glucose water <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Sugar-salt solution <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Fruit juice <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Infant formula <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Tea/infusions <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Suji <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Other [Specify] <table border="1" style="width: 40px; height: 20px;"></table></p>	<p>Honey <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Mustard oil <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Hotchpotch <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Egg <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Banana <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Boiled vegetable <table border="1" style="width: 40px; height: 20px;"></table></p> <p>Only breastmilk <table border="1" style="width: 40px; height: 20px;"></table></p>		

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9. Breastfeeding Attitudes

9.1a	<i>What is the PRIMARY method of infant feeding that you are planning on using?</i>	01= Exclusive breastfeeding 02= Partial breastfeeding and other foods 03= No breastfeeding at all, only other foods (animal milk, sugar, etc..) 04=Did not plan anything	<input type="text"/> <input type="text"/>
9.1b	<i>How long do you intend to breastfeed?</i>	Time in months ----- 88=Don't know	<input type="text"/> <input type="text"/>
9.1c	<i>When did you decide you were going to breastfeed?</i>	01= Before you became pregnant 02= During the first three months of pregnancy 03= During the middle three months of pregnancy 04= During the last three months of pregnancy 05=Did not take any decision	<input type="text"/> <input type="text"/>

Read: Now I would like you to consider the following definition of exclusively breastfeeding once more. Exclusive breastfeeding is termed as not giving anything (no water, other milk, honey, mustard oil, sugar...) other than breast milk to your baby for 6 complete months. Keeping this definition in mind, please choose the number that most closely describes how you feel about each statement.

		Disagree	Neither disagree nor agree	Agree
9.2	<i>Exclusive breastfeeding is the best way of providing food for my baby</i>	1	2	3
9.3	<i>Exclusive breastfeeding is difficult, as it limits the mother's freedom to do other things</i>	1	2	3
9.4	<i>Exclusive breastfeeding is healthy for the baby.</i>	1	2	3
9.5	<i>Exclusive breastfeeding is difficult because it means that no one else can help you feed the baby, you have to do it all by yourself</i>	1	2	3
9.6	<i>Exclusive breastfeeding is difficult because it is embarrassing to feed the baby in public</i>	1	2	3
9.7	<i>Exclusive breastfeeding is difficult because it is uncomfortable to feed the baby in public</i>	1	2	3
9.8	<i>Exclusive breastfeeding is difficult because it is hard to feed the baby in public</i>	1	2	3
9.9	<i>Exclusive breastfeeding is the most nutritious food for my baby.</i>	1	2	3
9.10	<i>Feeding the baby something other than breast milk is easier than only breastfeeding</i>	1	2	3
9.11	<i>Breastfeeding (Exclusive) makes you closer to your baby.</i>	1	2	3
9.12	<i>Breastfeeding (Exclusive) will make it hard to go back to work</i>	1	2	3
9.13	<i>Exclusive breastfeeding is better than feeding the baby other foods because breast milk is free</i>	1	2	3

Study ID

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9.14	<i>When you breastfeed you never know if the baby is getting enough milk</i>	1	2	3
9.15	<i>Mothers who feed the baby other things (animal milk, water, other foods) get more rest than mothers who exclusively breastfeeding</i>	1	2	3
9.16	<i>Exclusive breastfeeding takes up too much time</i>	1	2	3
9.17	<i>Breastfeeding is messy.</i>	1	2	3
<p>Read: For each of the following individuals, indicate what they believe is the best way to feed your child. If father/mother/mother-in-law died or received no advice from doctor please consider it as no response, and keep the question blank and make a note)</p> <p style="text-align: right;">Never give BM Partial breastfeeding + Only BM other foods formula</p>				
9.18	<i>The baby's father thinks I should</i>	1	2	3
9.19	<i>My mother thinks I should</i>	1	2	3
9.20	<i>My mother-in-law thinks I should</i>	1	2	3
9.21	<i>My sister thinks I should</i>	1	2	3
9.22	<i>My doctor thinks I should</i>	1	2	3
<p>Read: Please indicate the degree to which you agree or disagree with the following statements.</p> <p style="text-align: center;">Disagree Neither disagree Agree nor agree</p>				
9.23	<i>I am physically able to exclusively breastfeed</i>	1	2	3
9.24	<i>I know how to exclusively breastfeed</i>	1	2	3
9.25	<i>I am determined to exclusively breastfeed</i>	1	2	3
9.26	<i>I won't need help to exclusively breastfeed</i>	1	2	3
9.27	<i>Exclusive breastfeeding is easy</i>	1	2	3
9.28	<i>I am confident I can exclusively breastfeed</i>	1	2	3

Study ID

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READ: Now I would like to ask you about you and people in your family or community.
How much do you agree with the following statements?1 Please tell me whether you you agree, disagree, or are unsure.

During this pregnancy...

9.29	<i>...I have someone to help me if I am sick or need to rest</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<input type="text"/>
9.30	<i>...I have someone to take me to the clinic or doctor's office</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<input type="text"/>
9.31	<i>...I have someone to talk with about my problems</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<input type="text"/>
9.32	<i>...I have someone to help me if I am tired and feeling frustrated with my new baby</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<input type="text"/>

READ: Now I would like to ask you 2 additional questions, which are still about you and people in your family or community.
Again, I will first read a statement. Please tell me whether you you agree, disagree, strongly agree, strongly disagree, or are unsure. 2

9.33	<i>In general, I can trust the majority of people in my community.</i>	01 = Strongly Agree 02 = Agree 03 = Unsure 04 = Disagree 05 = Strongly Disagree	99=Not applicable 77 = Other. Specify _____	<input type="text"/>
9.34	<i>I feel as though I am a part of this community.</i>	01 = Strongly Agree 02 = Agree 03 = Unsure 04 = Disagree 05 = Strongly Disagree	99=Not applicable 77 = Other. Specify _____	<input type="text"/>

¹Adapted from Pregnancy Risk Assessment Monitoring System and
²Levinson et al. (2010). Social Engagement and Protective Sexual Behavior among Sex Workers: The Facilitator Intervention in Brazil. *Amer J Public Health*, 99(11), 1-11.
³Adapted from Levinson et al. (2010). Social Engagement Factors and Protective Sexual Behavior among Sex Workers: The Facilitator Intervention in Brazil. *Amer J Public Health*, 99(11), 1-11 and
⁴UNAIDS, *Sex, Drugs and Infections 2007: Men and women, power and health in a global context*. *Health & Gender*, 1, 111-120.

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10. Maternal Depression Screener³

Read: Now I would like to ask you a few questions about you have been feeling since giving birth to (INFANT NAME). Specifically, I would like for you to now recall how you have been feeling IN THE PAST 2 WEEKS, not just how you feel today.

Instructions: Please read aloud the 4 answer choices before the respondent answers.

READ: Over the last 2 weeks, how often have you been bothered by any of the following problems:

<p>10.1 <i>Feeling down, depressed, or hopeless</i></p>	<p>01 = Not at all 02 = Several days 03 = More than half of the days 04 = Nearly every day 05 = Other. Specify _____ 88 = Don't Know</p>	<table border="1" style="margin: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
<p>10.2 <i>Little interest or pleasure in doing things</i></p>	<p>01 = Not at all 02 = Several days 03 = More than half of the days 04 = Nearly every day 05 = Other. Specify _____ 88 = Don't Know</p>	<table border="1" style="margin: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

³ Gjerdingen D, Crow S, McGovern P, Miner M, Center B. Postpartum depression screening at well-child visits: validity of a 2-question screen and the PHQ-9. *Ann Fam Med.* 2009;7(1):63-70.
 Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. *Med Care.* 2003;41(11):1284-92.

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11. Woman's Empowerment*Read: Now I would to ask you some questions about decision-making and other household dynamics**INSTRUCTIONS: Preferable ask woman alone, in absence of her husband*

11.1	How old were you at the time of marriage? (years)	(Year) -----	<input type="text"/>
11.2	How old were you at the time of your first child's birth? (years)	(Year) ----- 99=Not applicable	<input type="text"/>
11.3	Have you heard of contraceptive methods?	01=Yes 02=No 88=Don't know	<input type="text"/>
11.4	Have you ever used a contraceptive method?	01=Yes 02=No >>10.6 88=Don't know	<input type="text"/>
11.5	What methods of contraception have you used? 01= Yes 99=Not Applicable (If not response)	Any traditional methods (azal/safe period) Any temporary modern methods pill <input type="text"/> condom <input type="text"/> injection <input type="text"/> IUD <input type="text"/> Norplant <input type="text"/> Other <input type="text"/> [Specify] _____	Female sterilization <input type="text"/> Male sterilization <input type="text"/> Kabaraji <input type="text"/> Not currently using any method <input type="text"/> Don't know <input type="text"/>
Control over women's earnings			
11.6	In the last 12 months who has been the decisions regarding how your income is spent?	01= Mainly wife (you) 02= Mainly husband 03= Wife and husband jointly 77= Other[Specify]----- 99=Not applicable	<input type="text"/>
11.7	Are you involved in a savings program for your own income/family income?	01=Yes 02=No 88=Don't know	<input type="text"/>

Study ID

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Freedom of movement					
11.8	Can/do you go to a hospital, health center or immunization center alone or accompanied by your children for a health problem?	01= Can go alone to health center or hospital 02= Can go to health center/hospital if accompanied by children 03= Cannot go to health center alone (with or without children) 04=Never can go alone to the health center 05=Never can go alone to the health center without permission	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.9	Are you part of a community peer support group?	01=Yes 02=No 88=Don't know	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
Women's participation in decision-making INSTRUCTIONS: For this section (Q10.11a- 10.11h) please write the appropriate code from the list below, next to each question					
11.10	Who in the family makes decisions regarding the following activities?	01= Mainly wife (you) 02= Mainly husband 03= Wife and husband jointly 04= Someone else 88=Don't know 99=Not applicable			
11.10 a	Mother's own healthcare?		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.10 b	Major household purchases (cow, radio, TV etc)		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.10c	Purchases of daily household needs (rice, oil, fuel etc)		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.10 d	Visits to your family or relatives		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.10 e	Children's healthcare		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.10 f	What your child eats/drinks		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.10 g	Use of contraceptive methods		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.10 h	Participation in a peer support group		<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.11	Do you make a personal sacrifice to participate in such groups such as not doing household chores or not going to the field?	01=Yes 02=No 88=Don't know 99=Not applicable	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		
11.12	Do you think it is more important to ensure a male baby is well fed in comparison to a female baby?	01=Yes 02=No 88=Don't know 99=Not applicable	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>		

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11.13	Is the husband/male members of your household supportive when you are facing problems with child's feeding?	01=Yes 02=No 88=Don't know 99=Not applicable	<input type="text"/>
Social Capital			
Read: for the following questions please answer with a Yes=01 or No=02 INSTRUCTIONS: For this section (Q10.12a- 10.12j) please write the appropriate code Yes=01 or No=02, next to each question			
11.14	In the last 12 months have you been an active member of any of the following types of groups in your community? Please indicate which of the following group(s) you have been associated with?	01=Yes 02=No	
11.14 a	Credit and savings group		<input type="text"/>
11.14 b	Training group (income generation activity, health)		<input type="text"/>
11.14 c	Women's association		<input type="text"/>
11.14 d	School committee		<input type="text"/>
11.14 e	Association for the destitute (dustho)		<input type="text"/>
11.14 f	Youth club		<input type="text"/>
11.14 g	Labor's association		<input type="text"/>
11.14 h	Trader's association		<input type="text"/>
11.14 i	Others(Specify) -----		<input type="text"/>
11.15	In the last 12 months, did you receive any emotional help from the above groups?	01=Yes 02=No 88=Don't know	<input type="text"/>
11.16	In the last 12 months, did you receive any economic help from the above groups?		<input type="text"/>
11.17	In last 12 months have you joined with any other community members to address a problem or common issue?		<input type="text"/>
11.18	In last 12 months have you talked with a local authority or governmental organization about problems of this community?		<input type="text"/>

Study ID

Did anyone other than the respondent present at the time of interview? 1=Yes, 2=No

If 'Yes' mention

Husband

Father-in-law

Mother-in-law

Elder son

Daughter

Other household members

Notes:

Name of the interviewer _____

Code

Name of the Quality controler _____

Code

Study ID

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Monitoring growth and nutritional status of children in rural Bangladesh Three Month Household Questionnaire

1. Identification

Read: To begin with, I would like to collect some basic identification information from you.

	Date of Interview:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Mobile no:	Own	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Request	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Name:					
1.1	Child's mother name: _____	Mother Study ID:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1.2	(MOTHER NAME), in what month and year were you born (<i>month and year</i>)	month 88= Don't Know	Month	<input type="text"/>	<input type="text"/>		
		year 8888= Don't Know	Year	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1.3a	How old were you at your last birthday? (<i>compare with question 1.2 above for consistency</i>)	Age in completed years -----					
		<input type="text"/>					
1.3b	Do you have a government ID card where your birth date is written down? IF YES: May I see it? Verify age and return to respondent. 01 = Yes 02 = No 03 = No card 88 = Don't Know	<input type="text"/>					
1.4	Child's father name : _____						
1.5	Name of Head of Household: _____						
1.6	Area:	01= Karimganj 02= Katiadi	<input type="text"/>	<input type="text"/>	,	<input type="text"/>	<input type="text"/>
1.7	Union ,Ward:	<input type="text"/>					
1.8	Village/Block/Mohalla:	<input type="text"/>					

Study ID

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1.9	Is (INFANT NAME) alive today?	01 = Yes 02 = No >> Skip to “Verbal Autopsy Supplement” (Do NOT need to complete rest of this questionnaire) 03 = Declined to answer 88 = Don’t know	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

1.10	In the next 6 months are you planning to live at another place, different from the place you are living now?	01 = Yes 02 = No >> Skip to 1.12 88 = Don’t know	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																							
1.11	How can we best reach you in 6 months? Instructions: Write down new address, or probe for phone number that will not change in 6 months.	<table border="1" style="width: 100%;"> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="text-align: center;"> <table border="1"> <tr> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> </tr> </table> </td> </tr> </table>				<table border="1"> <tr> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> </tr> </table>																				
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1.12	Are you currently attending school?	01 = Yes 02 = No	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																							
1.13	What is the last class (grade) of school that you have completed?	Instructions: Insert exact number of years completed. 01 = 1 year 08 = 8 years 02 = 2 years 09 = 9 years 03 = 3 years 10 = 10 years 04 = 4 years 11 = 11 years 05 = 5 years 12 = 12 years 06 = 6 years 07 = 7 years 13 = Got admitted into the college but did not attend classes 14 = Got admitted into the college, attended classes, but did not appear at the exam 15 = College and post college degree 16 = Some college (undergraduate) 20=Got admitted into the school, but never attended any class 21= Got admitted into the school, attended classes, but did not appear at the exam 33= Can not sign 44 = Can sign only 55=Religious education only 66 = Never went to school 88 = Don’t Know 99 = Not applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																							
1.14	Are you currently working for income?	01 = Yes 02 = No 99 = Not Applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																							

Study ID

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1.15	What type of work are you doing?	<i>Instructions: Code for different types of occupations below.</i>	<table border="1"> <tr> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> </tr> </table>		

Code for 1.15 -Types of Occupations (Circle the occupation)

01=Professional/technical (Doctor, engineer, lawyer, teacher, economist, agriculturist), 02=Large business (≥10,000/ Taka invested), 03=Small business (<10,000/ Taka invested), street vendors, 04=Blue collar services:(Factory worker, industry worker, garment worker), 05=White collar services: (Officer, manager, administrator, clerk), 06=Skilled worker (Driver, potter, black smith, gold smith, carpenter, mason, plumber, mechanic, tailor, handicraft), 07=Un-skilled worker (Boatman, fisherman), 08=Day laborer (Rickshaw/cart puller, construction worker, daily wage labor), 09=Farmer/share cropper, 10=Domestic maid/house maid, 11=House wife, 12=Overseas employment, 13=Beggar, 14=Unemployed, 15=Student, 16=Old aged/inactive, 17=Household work, 99=Not applicable, 77=Other (specify)_____

Study ID

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2. Changes in Demographics and Socio-economic Status

Read: Several months ago, we asked about the people usually living in your household. Now I would like to ask you about whether there have been any changes in the number of people living in your household, including any deaths and guests who stayed here last night.

<p>2.1</p> <p><i>Does (FAMILY MEMBER NAME) still usually live in your household? Please include any guests who stayed here last night. Also be sure to tell me if you are the person, or if the person has died.</i></p> <p>01 = Yes 02 = No 03 = No, person has died 04 = Yes, that person is the woman herself. 88 = Don't Know</p> <p><i>Instructions: BEFORE THE SURVEY, please fill out all members of the household listed in the baseline questionnaire (Section 2.1). During the survey, read out each member listed in the baseline questionnaire and record who is still there or who is no longer part of the household.</i></p> <p><i>When the name read out is the woman herself, please enter '04' as the code.</i></p> <p><i>Read: Please be sure to tell me if the name I read is your name.</i></p>	Line No.	Family Member Name		
	01			
	02			
	03			
	04			
	05			
	06			
	07			
	08			
	09			
	10			
	11			
	12			
	13			
14				

Study ID

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2.2 Household Schedule

Read: We would like to now include any additional people in your household who were not previously recorded. First, we would like to start with your newborn infant (or infants if you had multiple births at the same time).

Line no.	Usual resident and visitors	Relationship to head of household	Sex	Residence			Age	Marital Status	Ever attended school	Level of school attended	Current school attendance	Current paid work status	Current type of work
1	2	3	4	5			6	7	8	9	10	11	12
	List the names of your newborn infant(s) and record the sex as well as other information.	What is the relationship of (NAME) to the head of the household? ----- See codes below. Include Relationship Code	Is (NAME) male or female? ----- 1=M 2=F	Does (NAME) usually live here? ----- 1=Yes 2=No	Did (NAME) stay here last night? ----- 1=Yes 2=No	How old is (NAME)? ----- (complete year) <i>if age is less than 1 year write '00'</i> 88=Don't Know	What is (NAME) current marital status? ----- 01=current married 02=divorced/separated/deserted/widowed 03=never-married 04=Widower 88=Don't Know, 99=Not Applicable	Has (NAME) ever attended school? ----- 01=Yes 02=No 88=Don't Know, 99=Not Applicable	What is the level of school (NAME) has last attended? ----- <i>Insert exact number of years completed</i> 33=Can't sign, 44=Can sign, 55=Religious education only 66=Never went to school 88=Don't know, 99=Not Applicable	Is (NAME) currently attending school? ----- 01=Yes 02=No 88=Don't Know, 99=Not Applicable	Is (NAME) currently working? ----- 01=Yes 02=No 88=Don't Know, 99=Not Applicable	What type of work is (NAME) currently doing? ----- Use codes given below 99= Not Applicable (in case of a child)	
01		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
02		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
03		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

Study ID

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Line no.	Usual resident and visitors	Relationship to head of household	Sex	Residence		Age	Marital Status	Ever attended school	Level of school attended	Current school attendance	Current paid work status	Current type of work
1	2	3	4	5		6	7	8	9	10	11	12
<p>Read: We would like to now include any additional people in your household who were not previously recorded. Please give me the names of only any additional people who now usually live in your household including any guests who stayed here last night.</p> <p>Instructions: Please start with newborn infant(s) first, and record on the previous page.</p> <p>----- See codes below. Include Relationship Code</p> <p>----- List the names and record the relationship and sex for each person.</p>												
		What is the relationship of (NAME) to the head of the household?	Is (NAME) male or female? ----- 1=M, 2=F	Does (NAME) usually live here? ----- 1=Yes 2=No	Did (NAME) stay here last night? ----- 1=Yes 2=No	How old is (NAME)? ----- (complete year) If age is less than 1 year write '00' 88=Don't Know	What is (NAME) current marital status? ----- 01=current married 02=divorced/separated/deserted/widowed 03=never-married 04=Widower 88=Don't Know.	Has (NAME) ever attended school? ----- 01=Yes 02=No 88=Don't Know.	What is the level of school (NAME) has last attended? ----- Insert exact number of years completed 33=Can't signature, 44=Can signature only, 55=Religious education only 66=Never went to school 88=Don't know 99=Not Applicable	Is (NAME) currently attending school? ----- 01=Yes 02=No 88=Don't Know, 99=Not Applicable	Is (NAME) currently working? ----- 01=Yes 02=No 88=Don't Know, 99=Not Applicable	What type of work is (NAME) currently doing? ----- Use codes given below 99= Not Applicable (in case of a child)
01		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
02		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
03		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Study ID

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04												
05												
06												
07												
08												
09												
10												

Codes for question no. 3: Relationship with the household head

01 = Household head, 02 = Spouse, 03 = Daughter/son, 04 =Son-in-law/daughter-in-law, 05 =Grand son/grand daughter, 06 =Father/mother, 07 = Father-in-law/mother-in-law
 08 = Brother-in-law/sister-in-law, 09 = Other relative(Specify)-----, 10= Foster child/step child, 11= Brother/sister, 12= Non-relative, 88=Don't know
 77= Others(Specify)-----

Study ID

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Codes of occupation for question no. 12

01=Professional/technical (Doctor, engineer, lawyer, teacher, economist, agriculturist), 02=Large business (≥10,000/ Taka invested), 03=Small business (<10,000/ Taka invested), street vendors, 04=Blue collar services: (Factory worker, industry worker, garment worker), 05=White collar services: (Officer, manager, administrator, clerk), 06=Skilled worker (Driver, potter, black smith, gold smith, carpenter, mason, plumber, mechanic, tailor, handicraft), 07=Un-skilled worker (Boatman, fisherman), 08=Day labor (Rickshaw/cart puller, construction worker, daily wage labor), 09=Farmer/share cropper, 10=Domestic maid/house maid, 11=House wife, 12=Overseas employment, 13=Beggar, 14=Unemployed, 15= Student, 16= Aged, 17= Household task, 99=Not Applicable, 88= Don't know, 77=Other (specify) _____

2.3	<p><i>Read: Now, I would like to make sure that we have included everyone in our list of people in your household.</i></p> <p><i>Have we included your newborn infant(s)?</i></p>	<p>01 = Yes 02 = No</p> <p>88 = Don't Know</p>	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
2.4	<p><i>Have we now included all other people in your household in our listing?</i></p> <p><i>Instructions: If "No", complete detailed Household Schedule Information below.</i></p>	<p>01 = Yes 02 = No</p> <p>88 = Don't Know</p>	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
2.5	<p><i>(MOTHER NAME), what is your current marital status?</i></p>	<p>01=Married, 1st wife 02 = Married, 2nd wife 03 = Married, 3rd wife 04 = Married, 4th wife</p> <p>05 = Single, never married 06 = Single, separated 07= Single, widowed 08= Single, divorced 09 = Deserted 88 = Declined to answer 99=Not Applicable 77 = Other. Please Specify</p>	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

Study ID

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3. Food Security and Maternal Diet and Nutrition

Read: Now I would like to ask you some questions about your family's habits relating to food.

Q-01.	During the last 30 d, at what interval has your household purchased rice?	1. Did not buy 2. 1-3 times the last 30 d 3. Once in 7 d 4. 2-3 times in 7 d 5. At least 4-5 times in 7 d	<input type="checkbox"/>
Q-02.	During the last 30 d, at what interval has your household purchased "kanchabajar"? (Note: "kanchabajar" refers to shopping of perishable food items such as vegetables, fish and meat.)	1. Did not buy 2. 1-3 times the last 30 d 3. Once in 7 d 4. 2-3 times in 7 d 5. At least 4-5 times in 7 d	<input type="checkbox"/>
Q-03.	During the last 30 d, how many times a day did cooking usually take place in your household?	1. Never 2. Once a day 3. Twice a day 4. Three times a day 5. Four times or more	<input type="checkbox"/>
Q-04.	During the last 30 d, has your household helped others with cash or food items (like rice) for enabling them to make a meal? (If the girl/woman is poor, tell her that we need to ask this question of everybody, so she does not mind.)	1 = Yes 2 = No	<input type="checkbox"/>
Q-05.	During the last 30 d, how often has your household had to borrow from others to make a meal? (If the woman is rich, tell her that we need to ask this question of everybody, so she does not mind.)	1. Never >> Skip to Q-07. 2. 1-3 times in the last 30 d 3. Once in 7 d 4. 2-3 times in 7 d 5. At least 4-5 times in 7 d	<input type="checkbox"/>
Q-06.	Have you paid back or do you think you can pay back?	1 = Yes 2 = No	<input type="checkbox"/>
Q-07.	During the last 30 d, how many times on average have you had a fulfilling meal in a day?	1. One time 2. Two times 3. Three times 4. Four times	<input type="checkbox"/>
Q-08.	During the last 30 d, how often has it happened that you could NOT eat as many fulfilling meals as you would like to have done?	1. Never 2. Less than once in 7 d 3. Once in 7 d 4. 2-3 times in 7 d 5. At least 4-5 times in 7 d	<input type="checkbox"/>
Q-09.	For the last 30 d, did you usually have snacks in between meals?	1.No 2. Once or twice 3. Three times or more	<input type="checkbox"/>
Q-10.	For the last 30 d, how often did you have fish/meat? (If the girl/woman is rich, tell her that we need to ask this question of everybody, so she does not mind.)	1.Not once 2.Less than once in 7 d 3.Once in 7 d 4.2-3 times in 7 d 5.At least 4-5 times in 7 d	<input type="checkbox"/>
Q-11.	During the last 30 d, how often have you had to eat rice with just chili and salt?	1.Did not have to 2.Less than once in 7 d 3.Once in 7 d 4.2-3 times in 7 d 5.At least 4-5 times in 7 d	<input type="checkbox"/>

Study ID

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Food Groups and Weights

Read: Now I would like to ask you some questions regarding your diet and nutrition. I would like to record any liquids or foods that you had in the past 7 days.

3.1	Food items	Food groups	Weight	Number of days consumed (in last 7 days)
A.	Maize, Rice, porridge, smashed rice/rice gruel, bread and other cereals	Cereals and Tubers	2	
B.	Cassava, potatoes and sweet potatoes			
C.	Beans, peas, groundnuts and cashew nut	Pulses	3	
D.	Vegetables and leaves	Vegetables	1	
E.	Fruits	Fruit	1	
F.	Beef, goat, poultry, pork, eggs, dried fish and fish	Meat and fish	4	
G.	Milk, yogurt and other dairy	Milk	4	
H.	Sugar and sugar products	Sugar	0.5	
I.	Oils, fats and butter	Oil	0.5	
J.	Condiments	Condiments	0	

Dietary Diversity: Individual Dietary Diversity Questionnaire (IDDS)

Read: Now I would like to ask you some questions regarding your diet and nutrition. I would like to record any liquids or foods that you had in the past 24 hours.

Instructions: Please code '1' if the mother has consumed the food mentioned in the list in past 24 hours, otherwise code '2' Please circle the food name that has been consumed.

3.2	Food list	Example	1=Yes, 2=No
A.	CEREALS	Rice, smashed rice/rice gruel, bread, noodles, biscuits or any other foods made from wheat or rice	
B.	VITAMIN A RICH VEGETABLES AND TUBERS	pumpkin, carrots, sweet potatoes and other locally available vitamin-A rich vegetables	
C.	WHITE TUBERS AND ROOTS	White potatoes or foods made from roots	
D.	DARK GREEN LEAFY VEGETABLES	dark green/leafy vegetables locally available vitamin-A rich leaves (e.g. amaranth leaves)	
E.	OTHER VEGETABLES	other vegetables (e.g. tomato, eggplant)	
F.	VITAMIN A RICH FRUITS	fruits rich in vitamin A (e.g. ripe mangoes, papaya, jackfruit)	
G.	OTHER FRUITS	other fruits including guava, pineapple, watermelon, melon, orange, apple, grape, banana	
H.	ORGAN MEAT (IRONRICH)	liver, kidney, heart or other organ meats	

Study ID

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I.	FLESH MEATS	beef, lamb, goat, chicken, duck, or other birds	
J.	EGGS	egg	
K.	FISH	fresh or dried fish or shellfish	
L.	LEGUMES, NUTS AND SEEDS	beans, peas, lentils, nuts, seeds or foods made from these	
M.	MILK AND MILK PRODUCTS	Milk (cow's, goat's), cheese, yogurt or other milk products	
N.	OILS AND FATS	Oil, fats or butter added to food or used for cooking	
O.	JUNK FOOD	Cookies (cake, biscuit, cheaps), sweets, samocha	

3.3	<i>Are you currently taking any iron tablets or iron syrup?</i>	01 = Yes 02 = No 88 = Don't know	<input type="text"/> <input type="text"/>
3.4	<i>Did you take any iron tablets or iron syrup during your pregnancy?</i>	01 = Yes 02 = No>>>skip to Q-4.1 88 = Don't know>>>skip to Q-4.1	<input type="text"/> <input type="text"/>
3.5	<i>During this pregnancy, how many months/days did you take iron tablets or syrup?</i>	Months Days 00= None received 99 = Not Applicable	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
3.6	<i>During this pregnancy, how many days per week did you take iron tablets or syrup?</i>	----- Times 99 = Not Applicable	<input type="text"/> <input type="text"/>
3.7	<i>During this pregnancy, how many times per day did you take iron tablets or syrup?</i>	----- number 99 = Not Applicable	<input type="text"/> <input type="text"/>
3.8	<i>From where did you receive iron tablets?</i>	01=Government Hospital 02=Upazila Health Complex 03=Maternal and Child Welfare Center 04=NGO Static Clinic 05= FWC 06=Private Hospital/Clinic 07=Other Private Medical Center 08= Pharmacy	<input type="text"/> <input type="text"/>

Study ID

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		09 = Village Doctor 10= Community Clinic 11= Health Worker 77= Others(Specify)----- 88 = Don't know 99 = Not applicable (<i>if Q-3.8 'no/don't'</i>)			
3.9	<i>Did you take all iron tablets that you received?</i>	01= Yes 2= No>> <i>skip to Q-3.11</i> 88 = Don't know>> <i>skip to Q-3.11</i> 99 = Not applicable (<i>if Q-3.8 'no/don't'</i>)	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
3.10	<i>Why did you take all iron tablets?</i>	01 = Felt necessary 02= Encouraged by family members 03= Doctor adviced 77= Others(Specify)----- ----- 88 = Don't Know 99 = Not applicable (<i>if Q-3.8 'no/don't'</i>)	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
3.11	<i>Why did you not take all iron tablets?</i>	01 = Disliked taste 02 = Forgot 03 = Disliked side effects 04 = Felt unnecessary 05 = Gave away iron tablets 06= Objection from family 07 = Lost of tablet 08= Insufficient iron tablet supply 09= Unable purchased 10= Vertigo 77= Others(Specify)----- ----- 88 = Don't Know 99 = Not applicable (<i>if Q-3.8 'no/don't'</i>) (<i>if Q-3.9 'yes'</i>)	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

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4. Delivery

Read: Now I would like to ask you some questions regarding your recent experience in giving birth to your infant.

4.1	What is the name of your newborn baby?	_____	
4.2	Is (INFANT NAME) a boy or a girl?	01 = Boy 02 = Girl	<input type="checkbox"/> <input type="checkbox"/>
4.3	What date did you give birth to (INFANT NAME)?	Day Month Year	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.4	How old is (INFANT NAME) today?	Months _____ Days _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.5	Now we would like to just confirm the birth date of (INFANT NAME). Do you have a growth monitoring card where (INFANT NAME)'s vaccinations or identify where this information is written down? IF YES, ask: May I see it please?	01 = Yes, seen the card 02 = Yes, not seen the card 03 = No card 04 = Vaccine is not given yet	<input type="checkbox"/> <input type="checkbox"/>
4.6	On the growth monitoring card, what was the age when (INFANT NAME) was first weighed? <i>Instructions: If the child has no growth monitoring card but mother can tell the weight of the child please confirm that Q-4.5 is marked as "03."</i>	-----Months 01 = No age of first weight measurement recorded. 02 = child has no growth monitoring card>>skip to Q-4.8 88 = Don't know 99 = Not applicable	<input type="checkbox"/> <input type="checkbox"/>
4.7	On the growth monitoring card, what is the total number of times that (INFANT NAME) was weighed?	Number of times----- 01 = No weight recorded. 88 = Don't know 99 = Not applicable	<input type="checkbox"/> <input type="checkbox"/>
4.8	Were there any complications during pregnancy?	01 = Yes 02 = No >> Skip to 4.10 88 = Don't know>> Skip to 4.10	<input type="checkbox"/> <input type="checkbox"/>

Study ID

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4.9	<p>What complications occurred during pregnancy?</p> <p>01= Yes 02= No 88 = Don't Know 99 = Not applicable (<i>if no response</i>)</p>	<p>Early pregnancy bleeding <input type="checkbox"/> <input type="checkbox"/></p> <p>Incompetent cervix <input type="checkbox"/> <input type="checkbox"/></p> <p>Diabetes <input type="checkbox"/> <input type="checkbox"/></p> <p>Placenta abruption <input type="checkbox"/> <input type="checkbox"/></p> <p>High blood pressure <input type="checkbox"/> <input type="checkbox"/></p> <p>Rh Disease <input type="checkbox"/> <input type="checkbox"/></p> <p>Group B strep <input type="checkbox"/> <input type="checkbox"/></p> <p>High Fever (fever with chills or rigors) <input type="checkbox"/> <input type="checkbox"/></p> <p>Convulsion <input type="checkbox"/> <input type="checkbox"/></p> <p>Swelling of the limbs <input type="checkbox"/> <input type="checkbox"/></p> <p>Other. Specify: _____</p>	
4.10	<p>During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?</p>	<p>01= Yes 02= No >> Skip to 4.12 88= Don't Know >> Skip to 4.12</p>	<input type="checkbox"/> <input type="checkbox"/>
4.11	<p>How many times did you get this tetanus toxoid injection?</p>	<p>----- times 88= Don't Know 99= Not applicable</p>	<input type="checkbox"/> <input type="checkbox"/>
4.12	<p>Were you aware of any complications that occurred during delivery?</p>	<p>01= Yes 02= No</p>	<input type="checkbox"/> <input type="checkbox"/>
4.13	<p>Around the time of the birth of (INFANT NAME), did you have any problems?</p>	<p>01= Yes, 02= No>> Skip to 4.15</p>	

Study ID

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4.13	Around the time of the birth of (INFANT NAME), did you have any problems?	01= Yes, 02= No>> Skip to 4.15 88= Don't Know >> Skip to 4.15																					
4.14	What were the problems? 01= Yes 02= No 88 = Don't Know	<p style="text-align: center;">Long labor that is regular contractions, which lasted more than 12 hours?</p> <p style="text-align: center;">Excessive bleeding that was so much that you feared it was life threatening?</p> <p style="text-align: center;">A high fever with bad smelling vaginal discharge?</p> <p style="text-align: center;">Convulsions?</p> <p style="text-align: center;">Baby's hands or feet came first during delivery?</p> <p style="text-align: center;">Rupture membrane</p> <p style="text-align: center;">When water broke, hours</p> <p style="text-align: center;">Days</p> <p style="text-align: center;">Other. Specify:-----</p>	<table border="1" style="width: 100%; height: 100%;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																				
4.15	Where did you give birth to (INFANT NAME)? INSTRUCTIONS: Probe to identify the type of source and circle the appropriate code.	11=Your Home 12=Maternal Family Home 21=Government Hospital 22=Upazila Health Complex 23=Maternal and Child Welfare Center 31=NGO Static Clinic 41=Private Hospital/Clinic 42=Other Private Medical Center 77=Others (Specify)-----	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																				
4.16	Was (INFANT NAME) born by cesarean section?	01 = Yes 02 = No 88 = Don't Know	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																				
4.17	After (INFANT NAME) was born, did any medical persons check on your baby's health?	01 = Yes 02 = No >> Skip to 5.1 88 = Don't Know >> Skip to 5.1	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																				
4.18	How long after delivery did the first check take place? <i>(from after birth to now month)</i>	<p style="text-align: center;">Hours</p> <p style="text-align: center;">Days</p>	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																				

Study ID

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4.18	How long after delivery did the first check	<p>Hours</p> <p>Days</p> <p>Weeks</p> <p>88=Don't Know</p> <p>99=Not applicable (<i>If Q-4.16'No/Don't know'</i>)</p>	<table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table> <table border="1"> <tr> <td></td> <td></td> </tr> </table>										
4.19	Who checked on your baby's health? (01 month from birth)	<p>01 = Health Personnel / Qualified Doctor</p> <p>02=Nurse/Midwife/Paramedic</p> <p>03 = Community Counselor</p> <p>04 = Community Health and Nutrition Worker</p> <p>05 = Community Health and Nutrition Mobilizer</p> <p>06 = Family Welfare Visitor</p> <p>07 = Community Skilled Birth Attendant</p> <p>08 = MA/SACMO</p> <p>09 = Health Assistant</p> <p>10 = Family Welfare Assistant</p> <p>11 = Trained TBA</p> <p>12 = Untrained TBA</p>											

Study ID

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5. Breastfeeding Practices and Experiences

Read: Now I would like to ask you some questions about how you have been feeding your NEWBORN from birth until now.

5.1	How much time after birth did you first put (INFANT NAME) to your breast to feed him/her?	01 = Immediately (within 5 minutes) 02 = Within 6- 15 minutes 03 = Within 16- 30 minutes 04 = 31-59 minutes 05 = 1- 2 hours 06 = 3-5 hours 07 = 6-9 hours 08 = 10-12 hours 09 = 13-24 hours 10 = 25-36 hours	11 = 37-48 hours 12 = after 2 days 13 = after 3 days 14 = 4 days or more 77 = Other. Specify _____ 88 = Don't Know	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
5.2	How much time after birth was (INFANT NAME) first given colostrum?	01 = Immediately (within 5minutes) 02 = Within 6- 15 minutes 03 = Within 16- 30 minutes 04 = 31-59 minutes 05 = 1- 2 hours 06 = 3-5 hours 07 = 6-9 hours 08 = 10-12 hours 09 = 13-24 hours 10 = 25-36 hours	11 = 37-48 hours 12 = after 2 days 13 = after 3 days 14 = 4 days or more 77 = Other. Specify _____ 88 = Don't Know	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
5.3	How much time after birth was (INFANT NAME) first given any other liquids to drink (such as Sugar Water/Honey/Oil) except breast milk?	01 = Immediately (within 5minutes) 02 = Within 6- 15 minutes 03 = Within 16- 30 minutes 04 = 31-59minutes 05 = 1- 2 hours 06 = 3-5 hours 07 = 6-9 hours 08 = 10-12 hours 09 = 13-24 hours 10 = 25-36 hours	11 = 37-48 hours 12 = after 2 days 13 = after 3 days 14 = 4 days or more 15=Not given 77 = Other. Specify _____ 88 = Don't Know	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
5.4	At what age was (INFANT NAME) first given breast milk to drink?	01=Never given breast milk 02 = Immediately (within 5minutes) 03 = Within 6- 15 minutes 04 = Within 16- 30 minutes 05 = 31-59 minutes 06 =1- 2 hours 07 = 3-5 hours 08 = 6-9 hours 09 = 10-12 hours 10 = 13-24 hours 11 = 25-36 hours	12 = 37- 48 hours 13 = after 2 days 14 = after 3 days 15 = 4 days or more 16=1 week after birth 17=2 weeks after birth 18=3 weeks after birth 19=Not given 77 = Other. Specify _____ 88 = Don't Know	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
5.5	Has (INFANT NAME) ever been given water to drink?		01 = Yes 02 = No>> Skip to 5.7 88 = Don't Know>> Skip to 5.7	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
5.6	At what age was (INFANT NAME) first given water to drink?	01 = Never given water 02 = Immediately (within5 minutes) 03 = Within 6-15 minutes 04 = Within16- 30 minutes 05 = 31-59minutes 06 = 1-2 hours 07 = 3-5 hours 08 = 6-9 hours	12 = 37hours -1 week after birth 13 = 1 weeks after birth 14 = 2 weeks after birth 15 = 1months after birth 16 = 2 months after birth 17= 3 months after birth 18=Don't give 77 = Other. Specify _____	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		

Study ID

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5.6	<i>At what age was (INFANT NAME) first given water to drink?</i>	09 = 10-12 hours 10 = 13-24 hours 11 = 25-36 hours	88 = Don't Know 99= Not applicable	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
5.7	<i>Has (INFANT NAME) ever been given food to eat?</i>		01 = Yes 02 = No >> Skip to 5.9 88 = Don't Know>> Skip to 5.9	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
5.8	<i>At what age was (INFANT NAME) first given food to eat?</i>	01 = Never given food 02 = Immediately (within 5minutes) 03 = Within6- 15 minutes 04 = Within16- 30 minutes 05 = 31-59minutes 06 = 1- 2 hours 07 = 3-5 hours 08 = 6-9 hours 09 = 10-12 hours 10 = 13-24 hours 11 = 25-36 hours	12 = 37hours-1 week after birth 13 = 1 weeks after birth 14 =2 weeks after birth 15 = 1 months after birth 16 = 2 months after birth 17=3 months after birth 18=Don't give 77 = Other. Specify----- ----- 88 = Don't Know 99= Not applicable	<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		

5.9	5.10	5.11	5.12	5.13	5.14												
<i>Colostrum is the first milk-like substance, thick, yellow/cream in color, produced during the first few days after birth (0-3 days).</i> When (INFANT NAME) was 0-3 days old, what was he/she given to drink?	When (INFANT NAME) was 4 days old, what was he/she given to drink?	When (INFANT NAME) was 2 weeks old, what was he/she given to drink?	When (INFANT NAME) was 1 month old, what was he/she given to drink?	When (INFANT NAME) was 2 months old, what was he/she given to drink?	When (INFANT NAME) was 3 months old, what was he/she given to drink?												
Instructions: Please mark all that apply.																	
01 = Breast milk 02 = Colostrum 03 = Plain Water 04 = Animal Milk (Cow, Goat)		05 = Sugar Water/Honey/Juice 06 = Commercial Infant Formula 07 = Yoghurt 08 = Luta ("sugi", dilute semolina)		88 = Don't Know 99= Not applicable 77 = Other Liquid. Specify ----- -----													
<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>			<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>			<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>			<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>			<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>			<table border="1" style="width: 40px; height: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> </table>		
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Other _____	_____	_____	_____	_____	_____												

Read: Now I would like to ask you about any liquids (INFANT NAME) had in the last 24 hours.

5.15	Did (INFANT NAME) drink:		
A	Breast milk?	01 = Yes	_____

Study ID

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		02 = No 88 = Don't Know	<input type="checkbox"/>
B	Plain water?	01 = Yes 02 = No 88 = Don't Know	<input type="checkbox"/>
C	Sugar Water/Honey/Juice	01 = Yes 02 = No 88 = Don't Know	<input type="checkbox"/>
D	Commercially produced infant formula/baby formula?	01 = Yes 02 = No 88 = Don't Know	<input type="checkbox"/>
E	Cow's milk?	01 = Yes 02 = No 88 = Don't Know	<input type="checkbox"/>
F	Goat's milk?	01 = Yes 02 = No 88 = Don't Know	<input type="checkbox"/>
G	Yoghurt?	01 = Yes 02 = No 88 = Don't Know	<input type="checkbox"/>
H	Luta ("sugri", dilute semolina)	01 = Yes 02 = No 88 = Don't Know	<input type="checkbox"/>
I	Other liquid (aside from breast milk or the liquids just previously named)?	01 = Yes 02 = No 88 = Don't Know If Yes, please specify: _____ _____ _____	<input type="checkbox"/>

Read: Now I would like to ask you about any foods (INFANT NAME) had in the last 24 hours.

Instructions: Please code '1' if the infant has consumed the food mentioned in the list in past 24 hours, otherwise code '2' Please circle the food name that has been consumed.

5.16	Food list	Example	1=Yes, 2=No
A.	CEREALS	Rice,bread, noodles, biscuits, cookies or any other foods made from rice, wheat , luta	
B.	VITAMIN A RICH VEGETABLES AND TUBERS	pumpkin, carrots or sweet potatoes that are orange inside + other locally available vitamin-A rich vegetables	
C.	WHITE TUBERS AND	White potatoes or foods made from roots.	

Study ID

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	ROOTS		
D.	DARK GREEN LEAFY VEGETABLES	dark green/leafy vegetables locally available vitamin-A rich leaves such as amaranth leaves etc.	
E.	OTHER VEGETABLES	other vegetables e.g. tomato, eggplant	
F.	VITAMIN A RICH FRUITS	ripe mangoes, papaya, jackfruit or other locally available vitamin A-rich fruits	
G.	OTHER FRUITS	other fruits including guava, pineapple, watermelon, melon, orange, apple, grape, banana	
H.	ORGAN MEAT (IRONRICH)	liver, kidney, heart or other organ meats	
I.	FLESH MEATS	beef, lamb, goat, chicken, duck, or other birds	
J.	EGGS	egg	
K.	FISH	fresh or dried fish or shellfish	
L.	LEGUMES, NUTS AND SEEDS	beans, peas, lentils, nuts, seeds or foods made from these	
M.	MILK AND MILK PRODUCTS	Milk (cow's, goat's), cheese, yogurt or other milk products	
N.	OILS AND FATS	oil, fats or butter added to food or used for cooking	
O.	JUNK FOOD	cookies, sweets	

5.17	How many times did (INFANT NAME) eat solid, semisolid or soft foods in the last 24 hours?	00 = 0 times 01 = 1 times 02 = 2 times 03 = 3 times 04 = 4 times 05 = 5 times 06 = 6 times 07 = 7 times 08 = 8 times or more 88 = Don't Know	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

Read: Now, I would like to ask you a few questions about bottle feeding (INFANT NAME).

5.18	Have you ever fed (INFANT NAME) using a bottle?	01=Yes 02=No » Skip to section 6.1	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
5.19	What do you bottle feed (INFANT NAME)?	01=Cow's milk 02=Goat's milk 03=Commercially produced infant/baby formula 04=Breast milk 05 = Luta (semolina, or "sugi" diluted with water) 06=Water 07=Tea 08=Fruit juice 09=Sugar/water/honey 99=Not Applicable(If,Q-5.8 is "no")	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

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5.20	How often do you bottle feed (INFANT NAME) in a week?	01=7 or more times/week 02= 4-6 times/week 03=0-3 times/week 77=Other. Specify ----- 88 = Don't Know 99=Not Applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
5.21	How many days in the last month did you bottle feed (INFANT NAME)?	----- days in a month 99=Not Applicable (If,Q-5.8 is "no")	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

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6. Intentions for Introducing Foods

READ: Now I would like to ask you some questions about your plans to feed your newborn baby. Please choose the answer that most clearly matches your opinion considering both your plans and the likelihood that you will carry out those plans.

6.0	<p><i>Instructions: In this section, ONLY ask either questions A or B. Based on respondent's answers to 5.9-5.16 decide whether the infant is:</i></p> <p><i>A) Currently still exclusively breastfed (if Q-5.9-5.14 answer is "01=breast milk" and except 5.15A, all answers including 5.16 are "NO")</i></p> <p><i>B) Not exclusively breastfed (if 5.9-5.14 is "02-08,88,77 or 5.15B-I and 5.16 any one response is YES)</i></p> <p><i>Please code A or B first.</i></p>		<p>01=A 02=B</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

	<i>A - Currently Still Exclusively Breastfed Infants</i>	<i>B - Not Exclusively Breastfed Infants</i>			
6.1	<i>How long do you plan to give (INFANT NAME) nothing other than breast milk, not even water?</i>	<i>How long did you plan to give (INFANT NAME) nothing other than breast milk, not even water?</i>	<p>00 if <01 month 01 month 07 months 02 months 08 months 03 months 09 months 04 months 10 months 05 months 11 months 06 months 12 months</p> <p>>12 months (please specify)</p> <p>88=Don't know</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
6.2	<i>When did you decide how long you are going to give (INFANT NAME) nothing other than breast milk, not even water?</i>	<i>Skip to 6.3</i>	<p>01= Before you became pregnant 02= During pregnancy 03= After the baby's birth 04=During the first three months after birth 05=Did not make any decision</p> <p>88=Don't know</p> <p>99= Not Applicable (If Q-6.2 B is not answered)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
6.3	<i>Skip to 6.5</i>	<i>How long do you plan to give (INFANT NAME) breast milk?</i>	<p>03 month 09 months 15 months 04 months 10 months 16 months 05 months 11 months 17 months 06 months 12 months 18 months 07 months 13 months 19 months 08 months 14 months 20 months</p> <p>>20 months (please specify)</p> <p>88=Don't know</p> <p>99= Not Applicable (If Q-6.3 A is not answered)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
6.4	<i>Skip to 6.5</i>	<i>When did you decide how long you are going to give (INFANT NAME) breast milk?</i>	<p>01= Before you became pregnant 02= During pregnancy 03= After the baby's birth 04=During the first three months after birth 05=Did not make any decision</p> <p>88=Don't know</p> <p>99= Not Applicable (If Q-6.4 A is not answered)</p>		
6.5	<i>At what age, do you plan to first introduce other liquids (aside from breast milk) to</i>	<i>At what age, did you first introduce other liquids (aside from breast milk) to</i>	<p>00 if < 01 month 01 month 07 months 02 months 08 months</p>		

Study ID

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	<i>(INFANT NAME)'s diet?</i>	<i>(INFANT NAME)'s diet?</i>	03 months 09 months 04 months 10 months 05 months 11 months 06 months 12 months >12 months (please specify) 88=Don't know	<table border="1" style="width: 100px; height: 20px; margin-bottom: 10px;"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;"></td> </tr> </table> <table border="1" style="width: 100px; height: 20px;"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;"></td> </tr> </table>				
	<p>INSTRUCTIONS: Record the number of <i>months</i> reported. If '1 month', record '01'. If '>12 months', still record in months. For example, if 1 year and 3 months, enter '15m'</p> <p>If <01 month, record number of days AND 00 month.</p>							
6.6	<i>At what age, do you plan to first introduce other foods (aside from breast milk) to (INFANT NAME)'s diet?</i>	<i>At what age, did you first introduce other foods (aside from breast milk) to (INFANT NAME)'s diet?</i>	00 if < 01 month 01 month 07 months 02 months 08 months 03 months 09 months 04 months 10 months 05 months 11 months 06 months 12 months >12 months (please specify) 88=Don't know	<table border="1" style="width: 100px; height: 20px;"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;"></td> </tr> </table>				
6.7 A	<i>In the first few days (1-3 days) after you begin to give (INFANT NAME) other foods besides breast milk, how many times a day do you plan to give him/her foods?</i>	<i>In the first few days after you began giving (INFANT NAME) other foods besides breast milk, how many times a day did you give (INFANT NAME) foods?</i>	----- Times/Day 88=Don't know	<table border="1" style="width: 100px; height: 20px;"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;"></td> </tr> </table>				
6.7 B	<i>In the first week after you begin to give (INFANT NAME) other foods besides breast milk, how many times a day do you plan to give him/her foods?</i>	<i>In the first week after you began giving (INFANT NAME) other foods besides breast milk, how many times a day did you give (INFANT NAME) foods?</i>	----- Times/Day 88=Don't know					
6.7 C	<i>In the first month after you begin to give (INFANT NAME) other foods besides breast milk, how many times a day do you plan to give him/her foods?</i>	<i>In the first month after you began giving (INFANT NAME) other foods besides breast milk, how many times a day did you give (INFANT NAME) foods?</i>	----- Times/Day 88=Don't know					
6.7 D	<i>In the first three months after you begin to give (INFANT NAME) other foods besides breast milk, how many times a day do you plan to give him/her foods?</i>	<i>In the first three months after you began giving (INFANT NAME) other foods besides breast milk, how many times a day did you give (INFANT NAME) foods?</i>	----- Times/Day 88=Don't know					
6.8	<i>Skip to 6.9</i>	<i>In the next 6 months from today, how many times a day do you plan to give (INFANT NAME) foods?</i>	----- Times/Day 88=Don't know 99 = Not Applicable (If Q-6.8 "A" is not answered)	<table border="1" style="width: 100px; height: 20px; margin-bottom: 10px;"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;"></td> </tr> </table>				
6.9	<i>When you first begin to give (INFANT NAME) other foods, what types of foods do you plan to give in the first week he/she eats foods?</i>	<i>When you first began giving (INFANT NAME) other foods, what types of foods did you first give to (him/her) in the first week he/she eats foods?</i> 01 = Yes	Cereals (bread, noodles, biscuits, cookies, or any other foods made from rice, wheat) Vitamin A Rich Vegetables and Tubers (pumpkin, carrots, or sweet potatoes that are orange inside + other locally available vitamin	<table border="1" style="width: 100px; height: 20px; margin-bottom: 10px;"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;"></td> </tr> </table> <table border="1" style="width: 100px; height: 20px;"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;"></td> </tr> </table>				

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6.9	<p><i>When you first begin to give (INFANT NAME) other foods, what types of foods do you plan to give in the first week he/she eats foods?</i></p>	<p>02 = No</p>	<p style="text-align: center;">A-rich vegetables)</p> <p>White Tubers and Roots (White potatoes or foods made from roots) <input style="float: right;" type="checkbox"/></p> <p>Dark Leafy Green Vegetables (dark green/leafy vegetables locally available vitamin-A rich leaves such as amaranth leaves etc) <input style="float: right;" type="checkbox"/></p> <p>Vitamin A Rich Fruits (ripe mangoes, papaya, jackfruit or other locally available vitamin A-rich fruits) <input style="float: right;" type="checkbox"/></p> <p>Other Vegetables (e.g. tomatoes, eggplant) <input style="float: right;" type="checkbox"/></p> <p>Other Fruits (e.g. guava, pineapple, watermelon, melon, orange, apple, grape, banana) <input style="float: right;" type="checkbox"/></p> <p style="text-align: center;">Organ Meat (iron rich)</p> <p>Flesh Meats (beef, lamb, goat, chicken, duck, or other birds) <input style="float: right;" type="checkbox"/></p> <p style="text-align: center;">Eggs</p> <p style="text-align: center;">Fish (fresh/dried fish or shellfish) <input style="float: right;" type="checkbox"/></p> <p>Legumes, Nuts, and Seeds (beans, peas, lentils, nuts, seeds, or foods made from these) <input style="float: right;" type="checkbox"/></p> <p>Milk (cow's, goat's), cheese, yogurt, or other milk products <input style="float: right;" type="checkbox"/></p> <p>Oil, fats, or butter added to food or used for cooking <input style="float: right;" type="checkbox"/></p> <p>Other(s). Specify _____ <input style="float: right;" type="checkbox"/></p> <p>_____ <input style="float: right;" type="checkbox"/></p> <p>_____ <input style="float: right;" type="checkbox"/></p>
6.10	<p><i>Skip to 6.11</i></p>	<p><i>What additional types of foods do you plan to introduce to (INFANT NAME)'s diet after he/she has been eating for 6 months?</i></p> <p>01 = Yes 02 = No</p> <p>99=Not Applicable (If Q-6.10 "A" is not answered)</p>	<p>Cereals (bread, noodles, biscuits, cookies, or any other foods made from rice, wheat) <input style="float: right;" type="checkbox"/></p> <p>Vitamin A Rich Vegetables and Tubers (pumpkin, carrots, or sweet potatoes that are orange inside + other locally available vitamin A-rich vegetables) <input style="float: right;" type="checkbox"/></p> <p>White Tubers and Roots (White potatoes or foods made from roots) <input style="float: right;" type="checkbox"/></p> <p>Dark Leafy Green Vegetables (dark green/leafy vegetables locally available vitamin-A rich leaves such as amaranth leaves etc) <input style="float: right;" type="checkbox"/></p>

Study ID

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		<p>Vitamin A Rich Fruits (ripe mangoes, papaya, jackfruit or other locally available vitamin A-rich fruits) <input type="checkbox"/> <input type="checkbox"/></p> <p>Other Vegetables (e.g. tomatoes, eggplant) <input type="checkbox"/> <input type="checkbox"/></p> <p>Other Fruits (e.g. guava, pineapple, watermelon, melon, orange, apple, grape, banana) <input type="checkbox"/> <input type="checkbox"/></p> <p>Organ Meat (iron rich) <input type="checkbox"/> <input type="checkbox"/></p> <p>Flesh Meats (beef, lamb, goat, chicken, duck, or other birds) <input type="checkbox"/> <input type="checkbox"/></p> <p>Eggs <input type="checkbox"/> <input type="checkbox"/></p> <p>Fish (fresh/dried fish or shellfish) <input type="checkbox"/> <input type="checkbox"/></p> <p>Legumes, Nuts, and Seeds (beans, peas, lentils, nuts, seeds, or foods made from these) <input type="checkbox"/> <input type="checkbox"/></p> <p>Milk (cow's, goat's), cheese, yogurt, or other milk products <input type="checkbox"/> <input type="checkbox"/></p> <p>Oil, fats, or butter added to food or used for cooking <input type="checkbox"/> <input type="checkbox"/></p> <p>Do you plan <input type="checkbox"/> <input type="checkbox"/></p> <p>Other(s). Specify _____</p>
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6.11	<p>Have you heard of sprinkles or multiple-micronutrient powders (MNP)?</p>	<p>01 = Yes 02 = No>>skip to 7.1 88 = Don't know >>skip to 7.1</p>	<input type="checkbox"/> <input type="checkbox"/>
6.12	<p>Do you plan to give sprinkles to (INFANT NAME)?</p>	<p>01 = Yes>>skip to 6.14 02 = No 03 = Already give sprinkles>>skip to 6.14 88 = Don't know>>skip to 7.1 99 = Not Applicable</p>	<input type="checkbox"/> <input type="checkbox"/>
6.13	<p>Why not? I=Yes,99 =Not Applicable(If no response) <i>Instructions: Please mark all responses.</i></p>	<p>Difficult to find in stores Too expensive No need to Doctor never recommended My family does not think necessary I don't think it is necessary</p>	<input type="checkbox"/> <input type="checkbox"/>

Study ID

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		<p>My friends do not think it is necessary</p> <p>Others. Please specify:</p> <hr/> <hr/> <p>88 = Don't Know 99 = Not Applicable (If Q-6.12 = Yes)</p>			
6.14	<i>Why?</i>	<p>Good for baby</p> <p>Easy to feed sprinkles</p> <p>Reasonable price</p> <p>Recommended</p> <p>Others also use sprinkles</p> <p>Others. Please specify:</p> <hr/> <hr/> <p>88 = Don't Know 99 = Not Applicable (If Q-6.11 = No)</p>	<table border="1"> <tr> <td></td> <td></td> </tr> </table>		

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7. Knowledge on Introducing Foods

READ: Now I would like to ask you some general questions regarding feeding your baby foods. After each of the following statements, I will read out options.

Instructions: Read ALL the options.

7.1	<p><i>At what age is it recommended that a baby begin to drink other liquids, aside from breast milk? (to be given)</i></p>	<p>00= Less than 01 month after baby's birth 01 month 07 months 02 months 08 months 03 months 09 months 04 months 10 months 05 months 11 months 06 months 12 months</p> <p>>12 months (please specify)</p> <p>88=Don't know</p> <p>99= Not Applicable (if no response)</p>	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
7.2	<p><i>How long after birth is it recommended that a baby begin to eat foods, aside from breast milk? (to be given)</i></p>	<p>00= Less than 01 month after baby's birth 01 month 07 months 02 months 08 months 03 months 09 months 04 months 10 months 05 months 11 months 06 months 12 months</p> <p>>12 months (please specify)</p> <p>88=Don't know</p> <p>99= Not Applicable (if no response)</p>	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
7.3	<p><i>How does a mother know when to introduce solid foods to (INFANT NAME)'s diet?</i></p> <p><i>INSTRUCTIONS: Please record all that apply</i></p> <p>01 = Yes 02 = No 99 = Not Applicable (If no response)</p>	<p>When infant is older than 6 months of age</p> <p>Infant can sit by him/herself</p> <p>Infant can hold up his/her head</p> <p>Infant has lost tongue thrust</p> <p>Infant has begun teething</p> <p>Infant can make chewing motions</p> <p>Infant has gained significant weight gain since birth</p> <p>Infant can close mouth around spoon</p> <p>Infant can control/move tongue around</p> <p>Infant shows interest in food</p> <p>Infant cries</p> <p>Infant is restless</p> <p>Mother's breast milk is not enough</p> <p>88=Don't know</p> <p>77=Other (Specify) _____</p>	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

Study ID

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7.4	<p>At that time, what are the first foods that are recommended for a baby to eat?</p> <p><i>INSTRUCTIONS: Please record all that apply. First only ask the question and record responses. Then read out other remaining answers and record responses.)</i></p> <p>01 = Yes 02 = No 99 = Not Applicable (If no response)</p>	Cereals (rice, wheat, jawar, hotchpotch)			
		Legumes (lentils, pulses, beans etc)			
		Foods from animals (egg, meat, fish)			
		Milk and milk products			
		Oil or fat			
		Sugar			
		Vegetables			
		Fruits			
		Nutritional supplements (sprinkles)			
		“Luta” (semolina, or “sugi” in a watery suspension)			
		Other (Specify)			

7.5	<p>When feeding a meal to a child who is 7-12 months old, what types of foods would you include in a single meal?</p> <p><i>INSTRUCTIONS: Please record all that apply. First only ask the question and record responses. Then read out other remaining answers and record responses.)</i></p> <p>01 = Yes 02 = No 99 = Not Applicable (If no response)</p>	Cereals (rice, wheat, jawar, hotchpotch)			
		Legumes (lentils, pulses, beans etc)			
		Foods from animals (egg, meat, fish)			
		Milk and milk products			
		Oil or fat			
		Sugar			
		Vegetables			
		Fruits			
		Nutritional supplements (sprinkles)			
		“Luta” (semolina, or “sugi” in a watery suspension)			
		Other (Specify)			

READ: Now I would like to ask you a few more questions about feeding your baby foods, in addition to breast milk. For these statements, I will not be reading aloud any options.

7.6	<p>When an infant begins to eat foods in addition to breast milk, what are the recommended ways that his/her food be prepared?</p> <p><i>INSTRUCTIONS: Please record all that apply</i></p>	Same food as for family		
		Different food than family		
		Watered down food		

Study ID

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7.6	01 = Yes 99 = Not Applicable (If no response by mother)		Pureed Mashed Semi-solid Other (Specify) _____ _____	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																		
7.7	In general, is it recommended that infants under 6 months of age be given water if the weather is very hot?	01= Yes 02= No 88=Don't know		<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																		
7.8	Imagine there is a mother who is having trouble beginning to introduce foods to her infant. What are the recommended ways a mother can try to feed her infant foods, aside from breast milk? INSTRUCTIONS: Please record all that apply 01= Yes 99=Not applicable (if not responded)		Active encouragement Giving infant his/her own plate Force feeding Introducing new foods one at a time Talk to child while feeding Maintaining eye-to-eye contact Minimize distractions during meals Include a variety of foods slowly Include nutritional supplements Play (as encouragement) Other. Specify _____	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																		
7.9	Do you think others will help you to feed your child? 01= Yes 99=Not applicable (if not responded)		Father-in-law Mother-in-law Husband Sister-in-law No, no one will help	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																		

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		Others (Specify)	

READ: Now I would like to ask you a few more questions about feeding your baby foods if he/she has diarrhea. After each of the following questions, I will read out options.

7.10	<p>What is <u>recommended</u> for a mother to do when her child has diarrhea?</p> <p><i>INSTRUCTIONS: Please read ALL options, and record all responses.</i></p> <p>01 = Yes 02 = No 99 = Not Applicable (If no response)</p>	<p style="text-align: right;">Give syrups</p> <p style="text-align: right;">Give traditional medicine</p> <p style="text-align: right;">Treated by doctor</p> <p style="text-align: right;">Give Zinc</p> <p style="text-align: right;">ORS</p> <p>Other [Specify]-----</p>	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																						
7.11	<p>What is recommended for a mother to do when her child had diarrhea/another illness?</p> <p><i>INSTRUCTIONS: Please read ALL options, and record all responses.</i></p> <p><i>PROBE: To clarify between different choices (e.g. less or more than usual?)</i></p> <p>01 = Yes 02 = No 99 = Not Applicable (If no response)</p>	<p>Continue breastfeeding>> If No, Skip next two choices (BF less or more than usual)</p> <p style="text-align: right;">Breastfeed less than usual</p> <p style="text-align: right;">Breastfeed more than usual</p> <p style="text-align: right;">Give less foods than usual</p> <p style="text-align: right;">Give as much foods as usual</p> <p style="text-align: right;">Give more food than usual</p> <p style="text-align: right;">Give less liquids than usual</p> <p style="text-align: right;">Give as much liquids as usual</p> <p style="text-align: right;">Give more liquids than usual</p> <p style="text-align: right;">Give treated water</p> <p style="text-align: right;">Give carrot juice or rice water</p>	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																						
7.12	<p>What <u>should</u> a mother do (in relation to feeding) AFTER her child has recovered from diarrhea or another illness?</p> <p><i>INSTRUCTIONS: Please read ALL options, and record all responses.</i></p> <p><i>PROBE: To clarify between different choices (e.g. less or more than usual?)</i></p> <p>01 = Yes 02 = No 99 = Not Applicable (If no response)</p>	<p>Continue breastfeeding>> If No, Skip next two choices (BF less or more than usual)</p> <p style="text-align: right;">Breastfeed less than usual</p> <p style="text-align: right;">Breastfeed more than usual</p> <p style="text-align: right;">Give less foods than usual</p> <p style="text-align: right;">Give as much foods as usual</p> <p style="text-align: right;">Give more food than usual</p>	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																						

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		Give less liquids than usual <input type="checkbox"/> <input type="checkbox"/> Give as much liquids as usual <input type="checkbox"/> <input type="checkbox"/> Give more liquids than usual <input type="checkbox"/> <input type="checkbox"/> Give nutrient food <input type="checkbox"/> <input type="checkbox"/> Give drugs/vitamins <input type="checkbox"/> <input type="checkbox"/> Give treated water <input type="checkbox"/> <input type="checkbox"/> Give carrot juice or rice water <input type="checkbox"/> <input type="checkbox"/> Other [Specify]----- <input type="checkbox"/> <input type="checkbox"/>
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7.13	Who provides you information on breastfeeding? <i>Instructions: Please record all responses.</i> 01 = Yes 99 = Not Applicable (If no response)	Mother <input type="checkbox"/> <input type="checkbox"/> Mother in law <input type="checkbox"/> <input type="checkbox"/> Husband <input type="checkbox"/> <input type="checkbox"/> Elder sister <input type="checkbox"/> <input type="checkbox"/> Sister-in-law <input type="checkbox"/> <input type="checkbox"/> Health Assistant <input type="checkbox"/> <input type="checkbox"/> Family Welfare Assistant <input type="checkbox"/> <input type="checkbox"/> MTMSG facilitator <input type="checkbox"/> <input type="checkbox"/> Community Counselor <input type="checkbox"/> <input type="checkbox"/> Community health and nutrition workers <input type="checkbox"/> <input type="checkbox"/> Community health and nutrition mobilizer <input type="checkbox"/> <input type="checkbox"/> Neighbor <input type="checkbox"/> <input type="checkbox"/> Friend <input type="checkbox"/> <input type="checkbox"/> None <input type="checkbox"/> <input type="checkbox"/> Other. Specify _____ <hr/> Don't Know <input type="checkbox"/> <input type="checkbox"/>
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7.14	<p>Who provides you information on complementary feeding?</p> <p><i>Instructions: Please record all responses.</i></p> <p>01 = Yes 99 = Not Applicable (If no response)</p>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">Mother</td><td style="width: 10%;"></td><td style="width: 10%;"></td></tr> <tr><td></td><td style="text-align: right;">Mother in law</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Husband</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Elder sister</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Sister-in-law</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Health Assistant</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Family Welfare Assistant</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">MTMSG facilitator</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Community Counselor</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Community health and nutrition workers</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Community health and nutrition mobilizer</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Neighbor</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Friend</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">None</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Other. Specify</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Don't Know</td><td></td><td></td></tr> </table>		Mother				Mother in law				Husband				Elder sister				Sister-in-law				Health Assistant				Family Welfare Assistant				MTMSG facilitator				Community Counselor				Community health and nutrition workers				Community health and nutrition mobilizer				Neighbor				Friend				None				Other. Specify				Don't Know		
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7.15	<p>Who provides you information on micronutrient powders (SPRINKLES)?</p> <p><i>Instructions: Please record all responses.</i></p> <p>01 = Yes 99 = Not Applicable (If no response)</p>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">Mother</td><td style="width: 10%;"></td><td style="width: 10%;"></td></tr> <tr><td></td><td style="text-align: right;">Mother in law</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Husband</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Elder sister</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Sister-in-law</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Health Assistant</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Family Welfare Assistant</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">MTMSG facilitator</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Community Counselor</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Community health and nutrition workers</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Community health and nutrition mobilizer</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Neighbor</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Friend</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">None</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Don't Know</td><td></td><td></td></tr> <tr><td></td><td style="text-align: right;">Other. Specify-----</td><td></td><td></td></tr> </table>		Mother				Mother in law				Husband				Elder sister				Sister-in-law				Health Assistant				Family Welfare Assistant				MTMSG facilitator				Community Counselor				Community health and nutrition workers				Community health and nutrition mobilizer				Neighbor				Friend				None				Don't Know				Other. Specify-----		
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Study ID

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7.16	<p>Where do you gain knowledge about breastfeeding?</p> <p><i>Instructions: Please record all responses.</i></p> <p>01 = Yes 99 = Not Applicable (If no response)</p>	<ul style="list-style-type: none"> -Counselors - MTMSG - Group education - EPI/GMP - Satellite clinic - Community clinic None - Other. Specify <hr/> - Don't Know 	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																								
7.17	<p>Where do you gain knowledge about complementary feeding?</p> <p><i>Instructions: Please record all responses.</i></p> <p>01 = Yes 99 = Not Applicable (If no response)</p>	<ul style="list-style-type: none"> - Counselors - MTMSG - Group education - EPI/GMP 05 = Satellite clinic - Community clinic None Radio TV News Paper Books - Other. Specify <hr/> - Don't Know 	<table border="1"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																								
7.18	<p>Where do you gain knowledge about micronutrient powders</p>																										

Study ID

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7.18	<p>(SPRINKLES)?</p> <p><i>Instructions: Please record all responses.</i></p> <p>01 = Yes 99 = Not Applicable (If no response)</p>	<p>- Counselors</p> <p>- MTMSG</p> <p>- Group education</p> <p>- EPI/GMP</p> <p>- Satellite clinic</p> <p>- Community clinic</p> <p>None</p> <p>- Other. Specify</p> <hr/> <hr/> <p>- Don't Know</p>	<table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table> <table border="1"> <tr><td></td><td></td></tr> </table>																								

Study ID

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8. Breastfeeding and Complementary Feeding Attitudes

READ: Now I would like to ask you about your intentions regarding feeding infants foods in addition to breast milk. Please consider the following statements about feeding your baby, (INFANT NAME). After I read each statement, please tell me whether you strongly disagree, disagree, agree, strongly agree with, or are neutral about the statement.

		Strongly Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
8.1	<i>Eating foods in addition to breast milk is healthy for the baby when he/she is older than 6 months.</i>	1	2	3	4	5
8.2	<i>When (INFANT NAME) is one year old, it is best to feed him/her both foods AND provide breast milk.</i>	1	2	3	4	5
8.3	<i>Feeding (INFANT NAME) food will make it easier for me to get rest at night.</i>	1	2	3	4	5
8.4	<i>Feeding (INFANT NAME) food costs more than just feeding my baby breast milk.</i>	1	2	3	4	5
8.5	<i>Feeding (INFANT NAME) nutritional supplements (such as sprinkles) ensures that he/she has the nutrition he/she needs.</i>	1	2	3	4	5
8.6	<i>It is easy to find nutritional supplements (such as sprinkles).</i>	1	2	3	4	5
8.7	<i>Nutritional supplements (such as sprinkles) are affordable.</i>	1	2	3	4	5
8.8	<i>I am able to provide enough breast milk for my baby.</i>	1	2	3	4	5
8.9	<i>I am always able to provide enough breast milk for my baby.</i>	1	2	3	4	5
8.10	<i>I have someone who is supportive of my breastfeeding.</i> Instructions: If "Disagree" marked >> Skip to 8.12	1	2	3	4	5

8.11	<i>Who supports your breastfeeding?</i> Instructions: Please mark ALL responses. 01 = Yes 99 = Not Applicable (If no response)	Husband Mother Mother-in-law Sister Sister-in-law Friend No one supports Other. Specify:	<table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>																				
8.12	<i>How would you rate your overall breastfeeding experience with (INFANT NAME) on a scale from 1 to 5. 1 being 'very bad, will never again breast feed', and 5 being 'very good, will continue to breastfeed future children.'</i>	Very Bad 1	Bad 2	So-So 3	Good 4	Very Good 5																	

READ: Now I would like to ask you about who makes decisions about breastfeeding (INFANT NAME).

8.13	<i>Who makes decisions about up to what age (INFANT NAME) will be (or was) exclusively breastfed?</i> Instructions: (code '99' if the baby is fed with other food at present)	01 = Mother (interviewee) 02 = Father 03 = Mother's mother 04 = Mother-in-law 05 = Sister 06 = Sister-in-law	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

Study ID

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		<i>99=Not applicable</i> <i>77 = Other. Specify _____</i>			
8.14	<i>Who makes decisions about up to what age (INFANT NAME) will be (or was) breastfed?</i>	<i>01 = Mother (interviewee)</i> <i>02 = Father</i> <i>03 = Mother's mother</i> <i>04 = Mother-in-law</i> <i>05 = Sister</i> <i>06 = Sister-in-law</i> <i>99=Not applicable</i> <i>77 = Other. Specify _____</i>	<table border="1"> <tr> <td></td> <td></td> </tr> </table>		

Study ID

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Read: For each of the following individuals, indicate what they believe is the best way to feed your child after 6 months of age. The options are as follows:

The baby should:

- 1) Receive only breast milk after 6 months of age.
- 2) Receive foods in addition to breast milk after 6 months of age.
- 3) Receive only foods (and no breast milk) after 6 months of age.

Please let me know if you would like me to repeat the three options at any point.

If father/mother/mother-in-law died or received no advice from doctor please note this by marking "99" as the response

If respondent does not know what the person thinks please note this by marking "88" as the response

8.15	My husband thinks I should	1	2	3	99	88
8.16	My mother thinks I should	1	2	3	99	88
8.17	My mother-in-law thinks I should	1	2	3	99	88
8.18	My sister thinks I should	1	2	3	99	88
8.19	My doctor thinks I should	1	2	3	99	88

Read: Now for each of the following individuals, please indicate what they believe is the best way to feed your child at 9 months of age. The options are as follows:

The baby should:

- 1) Receive only breast milk at 9 months of age.
- 2) Receive foods in addition to breast milk at 9 months of age.
- 3) Receive foods (and no breast milk) at 9 months of age.

Please let me know if you would like me to repeat the three options at any point.

If father/mother/mother-in-law died or received no advice from doctor please note this by marking "99" as the response

If respondent does not know what the person thinks please note this by marking "88" as the response

8.20	My husband thinks I should	1	2	3	99	88
8.21	My mother thinks I should	1	2	3	99	88
8.22	My mother-in-law thinks I should	1	2	3	99	88
8.23	My sister thinks I should	1	2	3	99	88
8.24	My doctor thinks I should	1	2	3	99	88

Read: Now for each of the following individuals, please indicate what they believe is the best way to feed your child at 9 months of age. The options are as follows:

At 9 months of age, the baby should:

- 1) Receive only breast milk at 9 months of age.
- 2) Receive foods without sprinkles(multiple micronutrient powder (MNP)) in addition to breast milk
- 3) Receive food with sprinkles in addition to breast milk
- 4) Receive only foods without sprinkles
- 5) Receive only food with sprinkles

Please let me know if you would like me to repeat the five options at any point.

If father/mother/mother-in-law died or received no advice from doctor please note this by marking "99" as the response

If respondent does not know what the person thinks please note this by marking "88" as the response

8.25	My husband thinks I should	1	2	3	4	5	99	88
8.26	My mother thinks I should	1	2	3	4	5	99	88
8.27	My mother-in-law thinks I should	1	2	3	4	5	99	88

Study ID

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8.28	<i>My sister thinks I should</i>	1	2	3	4	5	99	88
8.29	<i>My doctor thinks I should</i>	1	2	3	4	5	99	88

Read: Now I would like to ask for you to please tell me the degree to which you agree or disagree with the following statements.

1 = Strongly Agree 2 = Agree 3 = Neutral 4 = Disagree 5 = Strongly Disagree

8.30	<i>I am able to give my baby foods in addition to breast milk.</i>	1	2	3	4	5
8.31	<i>I know how to give my baby foods in addition to breast milk.</i>	1	2	3	4	5
8.32	<i>I am determined to give my baby foods in addition to breast milk.</i>	1	2	3	4	5
8.33	<i>I won't need help to give my baby foods in addition to breast milk.</i>	1	2	3	4	5
8.34	<i>Giving my baby foods in addition to breast milk is easy.</i>	1	2	3	4	5
8.35	<i>I am confident I can give my baby foods in addition to breast milk.</i>	1	2	3	4	5
8.36	<i>I am confident I can give my baby foods with micronutrient powders in addition to breast milk</i>	1	2	3	4	5

READ: Now I would like to ask you about you and people in your family or community. How much do you agree with the following statements? Please tell me whether you agree, disagree, or are unsure. **Since you delivered your new baby...**

8.37	<i>... I have someone to help me if I am sick or need to rest</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<table border="1" style="width: 100%;"><tr><td style="width: 50%; height: 20px;"></td><td style="width: 50%; height: 20px;"></td></tr></table>		
8.38	<i>... I have someone to take me to the clinic or doctor's office</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<table border="1" style="width: 100%;"><tr><td style="width: 50%; height: 20px;"></td><td style="width: 50%; height: 20px;"></td></tr></table>		
8.39	<i>... I have someone to talk with about my problems</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<table border="1" style="width: 100%;"><tr><td style="width: 50%; height: 20px;"></td><td style="width: 50%; height: 20px;"></td></tr></table>		
8.40	<i>... I have someone to help me if I am tired and feeling frustrated with my new baby</i>	01 = Agree 02 = Disagree 03 = Unsure	99=Not applicable 77 = Other. Specify _____	<table border="1" style="width: 100%;"><tr><td style="width: 50%; height: 20px;"></td><td style="width: 50%; height: 20px;"></td></tr></table>		

READ: Now I would like to ask you 2 additional questions, which are still about you and people in your family or community. Again, I will first read a statement. Please tell me whether you agree, disagree, strongly agree, strongly disagree, or are unsure. 2

8.41	<i>In general, I can trust the majority of people in my community.</i>	01 = Strongly Agree 02 = Agree 03 = Unsure 04 = Disagree 05 = Strongly Disagree	99=Not applicable 77 = Other. Specify _____	<table border="1" style="width: 100%;"><tr><td style="width: 50%; height: 20px;"></td><td style="width: 50%; height: 20px;"></td></tr></table>		
8.42	<i>I feel as though I am a part of this community.</i>	01 = Strongly Agree 02 = Agree 03 = Unsure 04 = Disagree 05 = Strongly Disagree	99=Not applicable 77 = Other. Specify _____	<table border="1" style="width: 100%;"><tr><td style="width: 50%; height: 20px;"></td><td style="width: 50%; height: 20px;"></td></tr></table>		

¹Adapted from Pregnancy Risk Assessment Monitoring System and Lippman et al. (2009) Social-Environmental Factors and Protective Sexual Behavior among Sex Workers: The Encontros Intervention in Brazil. *Amer J Public Health*, 99(11), 1-11.
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Study ID

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9. Maternal Depression Screener³

Read: Now I would like to ask you a few questions about you have been feeling since giving birth to (INFANT NAME). Specifically, I would like for you to now recall how you have been feeling IN THE PAST 2 WEEKS, not just how you feel today.

Instructions: Please read aloud the 4 answer choices before the respondent answers.

READ: Over the last 2 weeks, how often have you been bothered by any of the following problems:

<p>9.1 <i>Feeling down, depressed, or hopeless</i></p>	<p>01 = Not at all 02 = Several days 03 = More than half of the days 04 = Nearly every day 05 = Other. Specify _____ 88 = Don't Know</p>	<table border="1" style="margin: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
<p>9.2 <i>Little interest or pleasure in doing things</i></p>	<p>01 = Not at all 02 = Several days 03 = More than half of the days 04 = Nearly every day 05 = Other. Specify _____ 88 = Don't Know</p>	<table border="1" style="margin: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

³ Gjerdingen D, Crow S, McGovern P, Miner M, Center B. Postpartum depression screening at well-child visits: validity of a 2-question screen and the PHQ-9. *Ann Fam Med.* 2009;7(1):63-70.
 Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. *Med Care.* 2003;41(11):1284-92.

Study ID

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10. Infant Health*READ: Now I would like to ask about (INFANT NAME)'s health in the past two weeks.*

10.1	<p>Did (INFANT NAME) receive a vitamin A dose (like this/any of these) since birth?</p> <p>Show common types of capsules.</p>	<p>01 = Yes 02 = No 88 = Don't Know</p>	<input type="text"/>
10.2	<p>Has (INFANT NAME) had diarrhea in the last 2 weeks?</p>	<p>01 = Yes 02 = No >> Skip to 9.13 88 = Don't Know >> Skip to 9.13</p>	<input type="text"/>
10.3	<p>While (INFANT NAME) had diarrhea, was he/she given breast milk?</p>	<p>01 = Yes 02 = No >> Skip to 9.5 88 = Don't Know >> Skip to 9.5</p>	<input type="text"/>
10.4	<p>While (INFANT NAME) had diarrhea, how much <u>breast milk</u> was he/she given to drink?</p> <p>Was he/she given less than usual breast milk to drink, about the same amount, or more than usual to drink?</p> <p>IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?</p>	<p>01 = Much Less 02 = Somewhat Less 03 = About the Same 04 = More 88 = Don't Know 99 = Not applicable</p>	<input type="text"/>
10.5	<p>While (INFANT NAME) had diarrhea, was he/she given liquids (aside from breast milk) to drink?</p>	<p>01 = Yes 02 = No >> Skip to 9.7 88 = Don't Know >> Skip to 9.7</p>	<input type="text"/>
10.6	<p>While (INFANT NAME) had diarrhea, how much <u>other liquids</u> (aside from breast milk) was he/she given to drink?</p> <p>Was he/she given less than usual other liquids to drink, about the same amount, or more than usual to drink?</p> <p>IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?</p>	<p>01 = Much Less 02 = Somewhat Less 03 = About the Same 04 = More 05 = No drinks given 88 = Don't Know 99 = Not applicable</p>	<input type="text"/>
10.7	<p>When (INFANT NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual to eat, or nothing to eat?</p> <p>Instructions: ONLY ask if the infant is not exclusively breastfed. If the infant is still exclusively breastfed, mark '99'/'Not Applicable'</p> <p>IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?</p>	<p>01 = Much Less 02 = Somewhat Less 03 = About the Same 04 = More 05 = Nothing to Eat 88 = Don't Know 99 = Not Applicable</p>	<input type="text"/>

Study ID

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10.8	When (INFANT NAME) had diarrhea, was he/she given multiple micronutrient powder (SPRINKLES) with food?	01 = Yes 02 = No >> Skip to 9.13 88 = Don't Know >> Skip to 9.13 99 = Not Applicable	<input type="text"/>
10.9	How many sachets of multiple micronutrient powder (SPRINKLES) was (INFANT NAME) given while he/she had diarrhea?	----- no. of sachets 88 = Don't Know 99 = Not Applicable	<input type="text"/>
10.10	Did you seek advice or treatment when (INFANT NAME) has diarrhea?	01 = Yes 02 = No >> Skip to 9.13 88 = Don't Know >> Skip to 9.13 99 = Not Applicable	<input type="text"/>
10.11	What was the advice or treatment received? Instructions: Please record all responses.	01 = ORS 02 = zinc 03 = ORS + zinc 04 = Drinking more liquids (aside from breast milk) 05 = Drinking less liquids (aside from breast milk) 06 = Drinking more breast milk than usual 07 = Drinking less breast milk than usual 08 = Antibiotics 88 = Don't Know 99=Not applicable	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
10.12	Where did you seek advice or treatment from?	01 = Health Personnel / Qualified Doctor 02 = Nurse/Midwife/Paramedic 03 = Community Counselor 04 = Community Health and Nutrition Worker 05 = Community Health and Nutrition Mobilizer 06 = Family Welfare Visitor 07 = Community Skilled Birth Attendant 08 = MA/SACMO 09 = Health Assistant 10 = Family Welfare Assistant 11 = Trained TBA 12 = Untrained TBA 13 = Unqualified Doctor 77 = Other(Specify) _____ 88 = Don't know 99=Not applicable	<input type="text"/>
10.13	Has (INFANT NAME) been ill with a fever at any time in the last 2 weeks?	01 = Yes 02 = No 88 = Don't Know	<input type="text"/>
10.14	Has (INFANT NAME) had an illness with a cough at any time in the last 2 weeks?	01 = Yes 02 = No >> Skip to 9.17 88 = Don't Know>> Skip to 9.17	<input type="text"/>

Study ID

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10.15	When (INFANT NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	01 = Yes 02 = No >> Skip to 9.17 88 = Don't Know>> Skip to 9.17 99=Not applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
10.16	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	01 = Chest only 02 = Nose only 03 = Both 77 = Other _____Specify 88 = Don't Know 99=Not applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
10.17	Is (INFANT NAME) still sick with a fever/cough?	01 = Fever only 02 = Cough only 03 = Both fever and cough 04 = No, neither>> <i>skip to Q 10.1</i> 88 = Don't Know 99=Not applicable (<i>If Q-9.13, 9.14 answer "no"</i>)	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
10.18	Did you give breast milk when (INFANT NAME) had fever/cough?	01 = Yes 02 = No >> Skip to 10.1 88 = Don't Know>> Skip to 10.1	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
10.19	When (INFANT NAME) had fever/cough, how much breast milk was given to the child? Was he/she given less than usual to breast milk, about the same amount, more than usual to breast milk? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	01 = Much Less 02 = Somewhat Less 03 = About the Same 04 = More 05 = Nothing to drink 88 = Don't Know 99 = Not Applicable			
10.20	When (INFANT NAME) had fever/cough, was he/she given less than usual to eat, about the same amount, more than usual to eat? Instructions: ONLY ask if the infant is not exclusively breastfed. If the infant is still exclusively breastfed, mark '99'/'Not Applicable' IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	01 = Much Less 02 = Somewhat Less 03 = About the Same 04 = More 05 = Nothing to drink 88 = Don't Know 99 = Not Applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
10.21	Did you seek advice or treatment when (INFANT NAME) has diarrhea?	01 = Yes 02 = No >> Skip to 10.1 99=Not applicable	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		
10.22	What was the advice or treatment received? Instructions: Please record all responses.	01 = Acetaminophen 02 = Ibuprofen 03 = Oral antibiotics 04 = Shot 05 = Both oral antibiotics and shot 06 = Intravenous (IV) fluids 07 = Cough medicine	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		

Study ID

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		08 = Aspirin 77 = Other. Specify: _____ 88 = Don't Know 99=Not applicable			
10.23	Where did you seek advice or treatment from when child had fever/cough?	01 = Health Personnel / Qualified Doctor 02 = Nurse/Midwife/Paramedic 03 = Community Counselor 04 = Community Health and Nutrition Worker 05 = Community Health and Nutrition Mobilizer 06 = Family Welfare Visitor 07 = Community Skilled Birth Attendant 08 = MA/SACMO 09 = Health Assistant 10 = Family Welfare Assistant 11 = Trained TBA 12 = Untrained TBA 13 = Unqualified Doctor 77 = Other(Specify) _____ 88 = Don't know 99=Not applicable	<table border="1"> <tr> <td></td> <td></td> </tr> </table>		

Study ID

11. Anthropometrics

Read: Now I would like to take your height and weight measurements. Also, a finger prick blood sample will be taken in order to check the amount of iron that is in your blood. Please know that this is a common, standard test for iron, which requires only a small drop of blood.

MEASUREMENTS FOR MOTHER	
11.1	HEIGHT IN CENTIMETERS CM <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>
11.2	WEIGHT IN KILOGRAMS KG <input type="text"/> <input type="text"/> . <input type="text"/>
11.3	HEMOGLOBIN IN FINGERPRICK BLOOD SAMPLE gm/dL <input type="text"/> <input type="text"/> <input type="text"/> .
11.4	STATUS OF HEIGHT, WEIGHT, AND HEMOGLOBIN MEASUREMENTS Measured 1 Not Present 2 Refused all 3 Other 7 <input type="text"/> <input type="text"/>

Read: Now I would now like to take length, weight, head circumference, and iron measurements of (INFANT NAME) A finger prick blood sample will also be taken in order to check the amount of iron that is in your blood. Again, this is a common, standard procedure that requires only a small drop of blood.

ANTHROPOMETRIC MEASURES AND IRON STATUS FOR CHILD (3 MONTHS)	
11.5	RECORD NAME OF INFANT FROM 4.1 NAME _____
11.6	RECORD SEX OF INFANT FROM 4.2 01=Male 02=Female <input type="text"/> <input type="text"/>
11.7	WEIGHT IN KILOGRAMS Caretaker with child KG <input type="text"/> <input type="text"/> . <input type="text"/>
	Only mother KG <input type="text"/> <input type="text"/> . <input type="text"/>
11.8	LENGTH IN CENTIMETERS Instructions: Measurement should be taken when infant is lying down as flat as possible on his/her back. CM <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>
11.9	HEAD CIRCUMFERENCE IN CENTIMETERS CM <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>
11.10	HEMOGLOBIN IN FINGERPRICK BLOOD SAMPLE gm/dL <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>

Study ID

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11.11	STATUS OF HEIGHT, WEIGHT, AND HEMOGLOBIN MEASUREMENTS Measured 1 Not Present 2 Refused all 3 Other 7	<input type="checkbox"/>
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Was anyone other than the respondent present at the time of interview?

01=Yes
02=No

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If 'Yes' mention

Husband

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Father-in-law//Mother-in-law

--	--

Daughter/Son

--	--

Elder sister-in-law/Sister-in-law

--	--

Uncle/Aunt

--	--

Other household members

--	--

Neighbor (Name, relation)

--	--

Notes:

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Name of Interviewer _____

Code

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Name of Quality
Controller _____

Code

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Date:-----

Appendix References

1. World Health Organization. Exclusive breastfeeding for six months best for babies everywhere. Geneva: WHO, 2011.
2. Kramer MS, Kakuma R. The optimal duration of exclusive breastfeeding: a systematic review. *Adv Exp Med Biol* 2004;554:63-77.
3. American Academy of Pediatrics. Breastfeeding and the Use of Human Milk. *Pediatrics* 2012;129:e827-e41.
4. Fewtrell M, Wilson DC, Booth I. Six months of exclusive breast feeding: how good is the evidence? *BMJ* 2011;342:c5955.
5. World Health Organization. Indicators for assessing infant and young child feeding practices (Part I: Definitions): conclusions of a consensus meeting held 6–8 November 2007 in Washington D.C., USA. Geneva: WHO, 2008.