

## **Appendix A**

### **Study Research Questions**

# Appendix A

## Study Research Questions

Table A-1. Study research questions

Study research questions	Chapter	C Appendix
1: What is the participant's practice on breastfeeding and formula feeding her infant?	13,14,15	IC2,IC3, IC4
1a: Does the practice/behavior correspond to specific past feeding experiences (cultural norms, support received, personal feelings, barriers encountered, etc.)?	12,13	IC1,IC2
1b: How does breastfeeding advice or support compare to rates of initiation, duration, and exclusivity of breastfeeding?	13,14,15	IC2,IC3, IC4
1c: Are differences from one re-interview to the next statistically significant?	13,14,15	IC2,IC3, IC4
2: What is the frequency of breastfeeding or formula feedings and foods (total and by breast, formula, combinations, and foods) given?	14	IC3
2a: Do mothers/caregivers ever put anything other than human milk or formula in a bottle that is fed to their infant?	14	
3: What is the mean and range in the incidence, duration, and intensity of breastfeeding?	14	IC3
3a: Are differences from one re-interview to another statistically significant?		IC3
4: What are the breastfeeding history characteristics of postpartum women by level (e.g., quintile) of mean incidence, duration, and intensity?	14	IC3
4a: Do these characteristics change from one interview to the next? If so, are the differences statistically significant?	14	IC3
5: How does the mother/ caregiver determine the daily feeding schedule for the infant?	14	IC3
5a: How does this vary by day of the week, work schedule, and other factors? Not collecting day of but rather typical pattern week	14	IC3
6: What are the feeding practices with pumping or expressing human milk?	14	IC3
6a: How does the mother/ caregiver determine these practices?	14	IC3
6b: How does this vary by day of the week, work schedule, healthcare support and other factors? Not collecting day of week	14	IC3
7: How does the mother/caregiver determine the specific time and duration of feeding?	14	IC3
8: What are mothers' reported breastfeeding problems?	14	IC3
8a: Among those who had common breastfeeding problems, what are the number and percent receiving help from the WIC staff?	14	IC3
9: What is the distribution of caregiver understanding of appropriate feeding behaviors associated with infants' nonverbal cues regarding satiety gestures and cry interpretations?		IC3
10: How are caregivers obtaining or preparing baby foods (e.g., making at home, buying, getting from WIC, etc.)?	16	IC5
11: How do caregivers' infant food choices vary across feedings (e.g., only human milk, only formula, mixture, alterations, or other drinks)?	15	IC4
11a: Is the caregiver supplementing with food and/or other beverages besides formula and breast milk (e.g., soda, tea, juice)?	15	IC4

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Table A-1. Study research questions (continued)

Study research questions	Chapter	C Appendix
11b: What is the percentage of combination feedings comparing human milk, formula, and/or foods (e.g., mom supplements in the evening to allow infant to sleep through the night being 90 percent human milk, 5 percent baby foods, and 5 percent formula per day)?	I5	IC4
11c: How much food and/or cow's milk (i.e., whole, 2%, chocolate or 1% milk) is used?	I5	IC4
12: What WIC Food Package is the caregiver/infant receiving (i.e., full breastfeeding or partial breastfeeding)?	I3	IC2
13: What are the barriers (e.g., environmental) in breastfeeding practices and behaviors for infants?	I4	IC3
13a: For those who identified barriers, what do they think would be the best possible solution to overcome the barriers?	I4	IC3
14: What do mothers/caregivers perceive to be the impact of their food package choices on their breastfeeding behavior?	I4	IC3
15: What do mothers/caregivers perceive to be the impact of their food package choices on the food their child receives?	S3	SC2
16: What is the nutrient intake of infants and toddlers?	S5	SC4
16a: How does the nutrient intake vary by State food package choices?	S5	
16b: How does the nutrient intake vary by age, primary milk source, and other factors?	S5	SC4
17: What is the frequency and nature of mothers' reported breastfeeding problems?	I4	IC3
17a: Did the mother receive support? For whom? If not, from whom would she have liked support (WIC, family, all the above, etc.)?	I4	IC3
17b: Are there group differences in the prevalence of breastfeeding problems by race/ethnicity, age, and education of the mother?	I4	IC3
17c: How does the frequency of breastfeeding problems vary with other actors?	I4	IC3
17d: What are the resolutions of the problems?	I4	IC3
18: At each age, what percentages of WIC infants and/or toddlers use a cup (with and without assistance), a spoon, a Sippy cup or a pacifier throughout the first years of life? What percentage of WIC infants self-feed during mealtimes?	S3	IC3, SC2
19: How well are caregivers who use formula following the standard or specialized formula dilutions prescribed by the doctor or nutritionist? What is the prescribed amount, and is this over or under standard recommendations?	I4	IC3
20: What is the frequency of methods used by the caregiver to prepare foods (such as pureeing or mashing with utensils or by chewing up foods then giving to child)?	S3	SC2
21: When is pumping or expressing human milk done and how often? What are the storage practices? If using a breast pump, where did mother receive the pump from? What is the distribution of the frequency of use of pumps?	I4	IC3
22: What non-program and program factors (i.e., supplies, policies, staff competencies, and actions) contribute to the likelihood of initiating breastfeeding, formula supplementation, baby foods, and cereals?	I3,I4,I5	IC2,IC3,IC4
23: For women who chose a fully breastfeeding package yet also use formula, where do these women obtain formula?		IC3

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Study research questions	Chapter	C Appendix
24: If formula is used, what type(s) of formula (i.e., exempt, soy, milk-based, ready-to-drink powdered or concentrated)?	I4	IC3
24a: Who provided formula?	I4	IC3
24b: What was the reason for the formula?	I4	IC3
24c: How do these factors change in relation to the age of the infant?	I4	IC3
25: Does the mother or child have any medical conditions? If so, what were the actions taken to rectify? <i>Are only asking about treatments that could affect feeding behaviors (e.g., hospitalization, medication, etc.)</i>	I3	IC2
26: If child ever used a pacifier, when was it introduced and who introduced it? For what reason was the pacifier introduced? How often is the pacifier used and are there specific times when it is used or not used? <i>Not asking frequency of use or times used</i>		IC3
27: What is the overall prevalence of breastfeeding problems over the first half of infancy? What is the distribution of type of problem? How does this change over time?	I3	IC2
28: How do the feeding practices of infants and children who continue WIC participation compare to those who leave the program or have non-continuous periods of participation?	I3,I4,I5	IC2,IC3,IC4, SC1, SC2, SC3, SC4, SC5
29: What is the first feeding of WIC infants in the hospital?	I3	IC2
29a: Was the mother encouraged to initiate breastfeeding?	I3	IC2
29b: Did mother initiate breastfeeding in the hospital?	I3	IC2
29c: If so, how long after delivery was feeding initiated/encouraged (such as within the first hour after birth)?	I3	IC2
29d: Did the infant receive anything other than human milk in the hospital? If so, what, when and how often?	I3	IC2
30: What are mothers' reported breastfeeding problems while in the hospital? Among those who had common breastfeeding problems, what are the number and percent receiving help from the hospital staff?	I3	IC2
31: Did the mother/caregiver report receiving various items such as formula, pacifiers, bottles, breast pump; perhaps as part of a gift package from inside the hospital? What is the distribution of the content of these items? How does this relate to breastfeeding and other infant feeding practices?	I3	
32: Did the mother use any of the following services in the hospital: Media campaign materials, Lactation consultant, Other trained specialist, Breastfeeding support groups or classes, Equipment for breastfeeding support, Peer counseling, Other counseling, 24-hr. breastfeeding hotline, Designated staff members contact, Any other activities?	I3	IC2
33: Did the mother birth multiples? If yes - vaginally or cesarean section?	I3	IC2
33a: Infants health status (such as height, weight, head circumference, blood tests, Apgar scoring, immunizations, amount of wet/soiled diapers, and food allergy)? <i>Not collecting data on food allergies</i>	I3	IC2
34: When was mother discharged from hospital? Infant? How do these relate to infant feeding at discharge and later?	I3	IC2
35: What was the type(s) of feeding at hospital discharge (e.g., breast, formula, or both)?	I3	IC2
36: If applicable, what is the amount of expressed milk during the first 2 weeks after birth? What was done with the expressed milk? Interview occurs at 1 month and not at 2 weeks		IC3

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Study research questions	Chapter	C Appendix
37: What are the reasons why mothers stop breastfeeding during the first few weeks of their infant's life? How often do these occur? Which pose the greatest risk to breastfeeding success and duration?	I5	IC4
38: What factors play into a mother being successful at breastfeeding her infant during the first few weeks of life and 4-6 months of life? What factors are associated with successful breastfeeding for the first 6 months of her infant's life?	I3,I4,I5	IC2,IC3, IC4
39: What is the distribution of reasons for mothers coming into WIC clinics at 4-6 months and, in some cases, stopping breastfeeding?	I5	IC4
40: What is the mother's Edinburgh Postpartum Depression Scale score? How does this relate to infant feeding practices?		IC4
41: How do the answers to all above listed research questions vary in relation to the infant's health status at birth (such as length, weight, etc.) and household demographic characteristics?	I3,I4,I5	IC4
42: For working mothers, describe the distribution of characteristics of the place at work to pump human milk? Does the mother's employer have a workplace lactation program or provide any workplace accommodations (such as reasonable breaks, an appropriate place to store milk, a place other than the bathroom to pump/express human milk, etc.)?	S2	SC1
43: Is the respondent's child participating in the CACFP? If yes, what is the transition of baby foods, table foods, cow's milk, and human milk in the CACFP and other facilities?	S2	
44: If applicable, when did the child go into a childcare facility and what kind (i.e., child care center, family day care homes, early Head Start, homeless shelters, etc.)?	S2	SC1
45: For infants in child care: What are the general barriers to breastfeeding in these facilities? Who provides the food to these facilities? Is human milk given by bottle or nipple when at facilities (e.g., may go to facility on break to breastfeed or some mothers only bottle feed human milk to infants)? If the mother providing expressed human milk or breastfeeding the infant at the facility? How does breastfeeding success relate to childcare policies and practices?	S2	SC1
46: What are the caregiver's socio-demographic characteristics (i.e., sex, birth order, age of mother at time of birth, U.S. citizen, marital status, household size, poverty level, receipt of public assistance, education, employment prior WIC, drug history, health care, Medicaid, etc.) by maternal race and ethnicity? What is the native language? Not including drug history or native language. Will use foreign born rather than citizenship.	I1, S1	
47: What are the distributions of caregivers' and participants' health-related characteristics by race and ethnicity of the mother?	I1,S1	IC2,IC4
48: Is this the mother's first time breastfeeding or formula feeding?	I1,I2	
49: Did the mother breastfeed siblings?	I1,I2	
49a: If so, when did she initiate and how long did she breastfeed?	I1,I2	IC2
49b: When did she first give baby foods and table foods to siblings on WIC?		IC4
50: When did the mother/caregiver start participating in the WIC program?	I1	IC4
51: What are mothers' influences to breastfeed or formula feed? What influences the mother to breastfeed or formula feed?	I2,I3	IC1,IC2
52: Does the mother intend to breastfeed?	I2	IC1

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<b>Study research questions</b>	<b>Chapter</b>	<b>C Appendix</b>
<b>53: Did the mother receive counseling on infant feeding and care and by whom?</b>	I2	IC4
53a: Where did the mother receive her counseling on infant feeding and care (e.g., clinical dietitian from hospital, nurse practitioner or WIC nutritionist clinic)?		IC4
<b>54: What are staff and mothers/caregivers knowledge, attitudes, and beliefs about nutrition and behavior (e.g., following a kosher, vegan diet or other religious views affecting food consumption, etc.) for infants and toddlers?</b>	I4	IC4
<b>55: What are the mothers'/caregivers' challenges in nutrition education involving feeding practices?</b>		IC3
<b>56: Where does the mother/caregiver get nutrition information (e.g., WIC, websites, social media, family, friends, social networks, healthcare providers, etc.)?</b>	I4	IC3
<b>57: What triggers mothers'/caregivers' behavior to get information (such as infant won't stop crying, desire to be good mother, etc.)?</b>		IC3
<b>58: What are the physicians' views and/or beliefs regarding breastfeeding a preemie vs. non-preemie (e.g., growth)? Not interviewing providers. Instead, asking mother/caregiver their perception of their provider's views.</b>		IC3
<b>59: What is the relationship of infant and child feeding practices to infant and child growth and weight status (e.g., overweight/ underweight)?</b>	S6	SC5
<b>60: What are the mothers/caregivers and child's health care providers (OBGYN, pediatrician, etc.) views or beliefs regarding breastfeeding? What recommendations have mothers/caregivers received from their health care providers regarding breastfeeding? Not interviewing providers. Instead asking mother/caregiver their perception of their provider's views. As such perception of views and recommendations merge.</b>	I2,I3	IC3

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