

**WIC Breastfeeding Policy
Inventory**

Final Report

January 2015

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Ronette Briefel
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MATHEMATICA
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GLOSSARY

Breastfeeding Duration: The length of time a mother fed breast milk to her child. Duration could be determined by start and stop dates, the amount of time reported in days, weeks, or months, or the amount of time an infant received a fully or partially breastfeeding food package.

Breastfeeding Exclusivity: The length of time a mother fed only breast milk to her child. Exclusivity could be determined by start and stop dates (for example, the introduction of water, formula, or foods), the amount of time reported in days, weeks, or months, or the amount of time an infant received a fully breastfeeding food package.

Breastfeeding Initiation: A mother breastfed or fed her child breast milk at least once, or a child ever received a fully or partially breastfeeding food package.

Breastfeeding Intensity: The number of feedings that were breast milk, out of the total number of feedings in a given time period, such as 24 hours or seven days.

Direct-Service State Agency: A State WIC agency that reported providing direct services to WIC participants.

Full-time Equivalent (FTE): An FTE of 1 represents one person serving 40 hours per week in that position. An FTE of 0.5 indicates one person working 20 hours per week, or half-time, in that position.

Helpline: A local or toll-free telephone number that is dedicated to providing information on breastfeeding. Staff may either answer calls as they come in, or women may leave messages and calls are returned later. Helplines are also referred to as hotlines or warmlines. They do not include the clinic telephone number where participants call for other purposes such as scheduling appointments.

Local Agency Breastfeeding Coordinator: A staff person who oversees planning, implementation, evaluation, and training of breastfeeding activities in the local WIC agency.

Nutritionist: A staff member who provides individual or group nutrition education or counseling, usually State-licensed. Nutritionists may also have credentials such as Registered Dietitian.

Other Administrative System: A separate database or some other method of data storage that your agency uses to administer the WIC program.

Paradata: Information about the data collection process (for example, timestamp information) that is routinely captured while data collection is underway.

Peer Counseling Program Coordinator: A staff person who oversees planning, implementation, evaluation, and training of peer counseling program activities.

Peer Counselor: A paraprofessional, hired from the target population, who serves as a model for breastfeeding behaviors. This staff person is available to mothers outside of the usual clinic hours and environment. Please include all peer counselor FTEs, regardless of the funding source for the peer counseling program.

Prenatal or Pregnant Participant: A woman who is enrolled in WIC while she is pregnant.

Postpartum Participant: A mother who is enrolled in WIC after giving birth. Postpartum participants may have enrolled in WIC before or after the birth, and may or may not be breastfeeding.

Separate Data System: A data system that includes information on WIC participants but is not used for administering the WIC program.

Social Marketing: The application of commercial marketing strategies to promote positive health behaviors.

State Breastfeeding Coordinator: A staff person who coordinates the State's WIC breastfeeding efforts.

State WIC Agency: One of 90 State-level agencies that oversee administration of the WIC Program. These agencies include those in all 50 States, the District of Columbia, five territories, and 34 Indian Tribal Organizations. Exhibits in the report include all State agencies.

WIC Designated Breastfeeding Expert: A staff member with specialized lactation training who is referred to when other staff face breastfeeding situations outside of their scope of practice. WIC designated breastfeeding experts may include individuals who are International Board Certified Lactation Consultants (IBCLCs), Certified Lactation Educators (CLEs) or Certified Lactation Counselors (CLCs). They may be nurses or perform other functions in an agency or clinic. For this category, do not include staff who may be IBCLCs, CLEs, or CLCs but do not have lactation-related job responsibilities.

WIC Information System: The data system a WIC agency uses to certify participants.

ACRONYMS

CDC = Centers for Disease Control and Prevention

CPA = Competent Professional Authority

DC = District of Columbia

DHHS = U.S. Department of Health and Human Services

FNS = Food and Nutrition Service

FTE = full-time equivalent

FY = fiscal year

HRSA = Health Resources and Services Administration

IBCLC = International Board Certified Lactation Consultant

IOM = Institute of Medicine

ITFPS = WIC Infant and Toddler Feeding Practices Study

ITO = Indian Tribal Organization

LA = local WIC agency

MIS = management information system

MOU = memorandum of understanding

mPINC = National Survey of Maternity Practices in Infant Nutrition and Care

MPSC = Mountain Plains States Consortium

n.a. = not applicable

NCIRD = National Center for Immunization and Respiratory Diseases

NHANES = National Health and Nutrition Examination Survey

PC = peer counseling

PedNSS = Pediatric Nutrition Surveillance System

PNSS = Pregnancy Nutrition Surveillance System

PRAMS = Pregnancy Risk Assessment Monitoring System

SA = State WIC agency

SPIRIT = Successful Partners in Reaching Innovative Technology consortium

USDA = United States Department of Agriculture

WIC = Special Supplemental Nutrition Program for Women, Infants, and Children

WIC BPI = WIC Breastfeeding Policy Inventory

WIC LAD = WIC Local Agency Directory

WIC PC = WIC Program and Participant Characteristics Report

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EXECUTIVE SUMMARY

Breastfeeding promotion and support is a core component of the nutrition services provided by the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to low-income women and children up to five years of age. WIC promotes breastfeeding through State and local agency policies and practices designed to inform expectant and new mothers of the well-documented benefits of breastfeeding and, for mothers who choose to breastfeed, to provide services such as breastfeeding education and peer counseling through the infant's first year.

The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture administers the WIC Program and monitors trends in breastfeeding rates among WIC participants. As part of its ongoing efforts to increase breastfeeding exclusivity and duration, FNS contracted with Mathematica Policy Research to conduct the WIC Breastfeeding Policy Inventory (WIC BPI) Study. The study's main objectives were to describe a census of breastfeeding policies and practices at State agencies (SAs) and local WIC agencies (LAs); the breastfeeding measures that agencies currently collect and report, and the data systems used to do so; and the correlations between breastfeeding outcomes and agencies' policies and practices. The study also assessed the WIC BPI as an ongoing data collection tool for program monitoring and improvement. This report presents findings for each of these objectives except the analysis of correlations between breastfeeding outcomes and agencies' policies and practices, which is described in a separate memo for FNS.

The WIC BPI was a census of 90 State, territory, and ITO WIC agencies as well as approximately 1,800 local WIC agencies. The web-based survey was conducted in two parts. Part 1, which covered policies and practices to promote breastfeeding, was fielded from February to April 2013. Part 2 covered breastfeeding measures, data systems, and reporting, and was fielded from July to October 2013. All 51 States, including the District of Columbia, completed both parts of the survey, as did 91% of local agencies. Response rates were more than 80% for territories and ITOs.

Breastfeeding Policies and Practices

The WIC BPI found that agencies used a diverse set of services to promote and support breastfeeding. The survey documented for the first time the variety and extent of breastfeeding promotion policies and practices.

Staff credentials and training ensure that staff have the skills and knowledge with which to promote breastfeeding, and that they maintain and improve those skills over time. Most SAs and LAs had at least one staff member with a breastfeeding credential. Certified Lactation Counselors were the most prevalent, followed by International Board Certified Lactation Consultants. Training new staff on breastfeeding promotion was common, particularly for peer counselors but also for other staff.

Breastfeeding aids and promotion practices, as well as breastfeeding incentives, can directly support the initiation and continuation of breastfeeding. In the WIC BPI, breast pumps were the most common breastfeeding aid made available to participants, with almost all agencies providing them. The most common circumstance for issuing pumps was mothers returning to work or school, experiencing some other type of separation, or having feeding problems.

Breastfeeding education can help mothers learn the benefits of breastfeeding and effective feeding techniques. Agencies reported that breastfeeding education was offered in many different

languages besides English, though Spanish was the most common, and in many different formats, with in-person group- and individual-level education sessions the most common.

The support that mothers (in other words, peers) provide to other mothers has been shown to be one of the most successful approaches to encourage mothers to breastfeed their babies. The WIC BPI found that nearly all SAs operate or oversee LAs that have peer counseling programs, whereas two-thirds of LAs operate a peer counseling program. WIC staff initiated most enrollment efforts, although at many LAs, participants could request enrollment. Where enrollment was not automatic, nearly all agencies offered enrollment at a prenatal visit, with many also offering it at postpartum certification visits, and when participants were having breastfeeding problems.

In addition to peer counseling, there was diversity in the frequency of WIC staff's contact with participants, and the mode and environment in which it occurred. When pregnant women enrolled in WIC, almost all LAs provided individual breastfeeding counseling, enrolled them in the peer counseling program (if available), and provided information about the greater quantity and variety of foods in the fully breastfeeding food package. Staff frequently had contact with pregnant participants by telephone, though nutrition education classes and breastfeeding support groups were also popular. LA staff interacted with postpartum participants more often in hospitals or homes and less often in nutrition education classes compared to their interactions with pregnant participants.

Breastfeeding Data Systems and Reporting

Information about WIC agencies' data systems can help policymakers and program managers understand their capabilities for collecting and monitoring breastfeeding outcomes and analyzing changes over time to identify effective ways to increase breastfeeding rates. The WIC BPI found that more than one-third of agencies stored breastfeeding information in another administrative system separate from the WIC information system (i.e., the system used to certify participants). Most agencies reported doing so because the WIC information system did not track every aspect of program operations that they needed to track. For LAs, the most common types of other administrative data systems were peer counseling program databases and breast pump issuance databases. Data linking across systems was uncommon, with very few agencies reporting linking breastfeeding data in their WIC information system with other data sources. The most common uses for those that did were service delivery or program management.

The Collection and Measurement of Breastfeeding Outcomes

The WIC BPI collected information on the capabilities of SAs and LAs to collect, store, and report breastfeeding outcomes in various data systems, and process-level information about the specific questions that WIC clinic staff asked mothers in order to assess their infants' breastfeeding status. Knowing the extent to which agencies collect outcome measures will help FNS when considering the use of the WIC BPI as an ongoing data collection tool for program monitoring and improvement. For example, if most agencies collect exclusivity data, then exclusivity data could be collected and aggregated on a regular basis for program monitoring, along with information on breastfeeding policies and practices, and FNS could evaluate best practices in promoting exclusive breastfeeding.

Nearly all agencies reported that they collected information on breastfeeding initiation, duration, and exclusivity, whereas about half of all agencies collected information on breastfeeding intensity. Agencies could most easily provide breastfeeding estimates for initiation and duration (as

they are currently required), but staff believed they could provide exclusivity estimates with more difficulty and intensity estimates only with great difficulty.

For outcomes that agencies could provide, any differences across agencies in how the measures are defined or in the populations or time periods they represent, may lead to differences in outcomes that reflect these attributes rather than specific breastfeeding policies and practices. With this in mind, the WIC BPI asked agencies how they defined breastfeeding initiation, duration, exclusivity, and intensity and how their clinic staff asked mothers questions to assess these outcomes.

To determine breastfeeding initiation, nearly all agencies stored information on whether mothers *ever* breastfed their infant and whether they are *currently* breastfeeding, although in some cases WIC agencies relied on the percentage of infants receiving fully or partially breastfeeding food packages. WIC agencies also used multiple ways of determining breastfeeding duration. For many agencies the most common methods were calculating the difference between the dates when breastfeeding started and using the length of time reported by the mother, though nearly half of agencies were *also* able to use the length of time an infant received a fully or partially breastfeeding food package.

Most agencies that determined exclusivity could report it based on infants receiving the fully breastfeeding package, though about half could report it based on infants receiving no solids, water, or other liquids aside from breast milk. Nearly all agencies could report exclusivity at six months; three months and one month were also common. The WIC BPI study findings indicate that exclusivity rates may represent different subgroups of WIC participants or be estimated in different ways by different sources. Finally, the majority of agencies measured breastfeeding intensity based primarily on the percentage of liquid feedings that were breast milk, though some used percentage of total feedings (and some may have used both). Nearly all agencies based intensity on asking mothers about the past 24 hours; the rest asked about the past seven days. Among agencies that could provide intensity estimates, the most common infant ages when the outcome could be provided (in order of availability) were six months, one month, three months, and 12 months.

WIC BPI as an Ongoing Data Collection Tool

The changes to the WIC food package to support exclusive breastfeeding for a longer period underscore the need for accurate, timely information on breastfeeding rates and on policies and practices that promote breastfeeding. The WIC BPI was feasible as a web survey for both SA and LA respondents. Both parts of the survey achieved high response rates and minimal breakoffs with enthusiastic participation from many agencies, indicating not only a high degree of feasibility, but excellent data quality as well.

In the longer term, FNS may wish to consider alternative ways of collecting breastfeeding-related data from WIC agencies. For example, leveraging administrative data on breastfeeding outcomes that agencies already collect can greatly reduce burden on staff, particularly if information is collected using standardized processes and formats. Integrating breastfeeding data collection into WIC information systems is a promising alternative to surveying agencies. The approach will require long-term guidance from FNS so that agencies collect and store information in a consistent manner and data systems developers include standardized fields.

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I. INTRODUCTION

The benefits of breastfeeding to both infants and mothers are well documented, and breastfeeding is the foundation of maternal and infant health recommendations nationally and internationally (American Academy of Pediatrics 2012; World Health Organization n.d.). In the United States, breastfeeding rates are tracked for National Health Objectives, and breastfeeding promotion and support is a core component of the nutrition services provided by the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to low-income women and children up to five years of age (U.S. Department of Health and Human Services [DHHS] 2013; Food and Nutrition Service [FNS] 2013d). WIC promotes breastfeeding through State and local agency policies and practices designed to inform expectant mothers and new mothers of the well-documented benefits of breastfeeding and, for those mothers that choose to breastfeed, to provide peer counseling and continued support through the infant's first year.

The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) promotes and supports breastfeeding in the WIC Program and monitors trends in breastfeeding rates among WIC participants. As part of its ongoing efforts to identify potential practices to increase breastfeeding exclusivity and duration, FNS contracted with Mathematica Policy Research to conduct the WIC Breastfeeding Policy Inventory (WIC BPI) Study. The WIC BPI Study included the development of a set of data collection instruments and a descriptive report of State and local agency breastfeeding-related policies and practices and breastfeeding measures.

A. Policy Context

Authoritative organizations including the American Academy of Pediatrics recommend exclusive breastfeeding for the first six months of life (American Academy of Pediatrics 2012). However, there are recognized barriers to breastfeeding, including cultural norms, lack of family support, employment, and lack of health services, particularly among disadvantaged and low-income populations (DHHS 2011). National maternal and child health programs, including WIC and Early Head Start, are designed to encourage breastfeeding. To help meet national objectives, these programs seek to track breastfeeding rates overall and in low-income populations (DHHS 2011, 2013).

In addition to the psychological, economic, and overall health benefits of breastfeeding to mothers and babies, several systematic reviews on the relationship between breastfeeding and obesity have concluded that there is an association between breastfeeding and reduced risk of childhood obesity (Institute of Medicine [IOM] 2012). Based on the available evidence, breastfeeding is recommended as a public health strategy for preventing childhood obesity (IOM 2012; Centers for Disease Control and Prevention [CDC] 2013d; DHHS 2013). In fact, four out of a total of 83 indicators included in an IOM-recommended national plan to evaluate progress in preventing obesity are related to breastfeeding: (1) exclusive breastfeeding, (2) hospital breastfeeding practices, (3) employer lactation-support programs, and (4) racial/ethnic disparities in breastfeeding (IOM 2013). Disparities in rates of breastfeeding, particularly exclusive breastfeeding, and in the prevalence of childhood overweight and obesity are of particular concern among the low-income population (Jacknowitz et al. 2007; DHHS 2013). Because WIC serves 53% of all infants born in the United States, the WIC Program can help address such disparities (FNS 2014).

WIC's mission is to improve the health and nutritional status of low-income women, infants, and children age 1 to 5 through the issuance of food packages and the provision of medical screening and services, nutrition education and counseling, and breastfeeding promotion and support. Program funds are provided for breastfeeding education and support systems such as peer counseling programs (FNS 2013d). In fiscal year (FY) 2013, the WIC Program served approximately 8.7 million participants across the 50 States; District of Columbia; five territories (Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Northern Marianas); and 34 Indian Tribal Organizations (ITOs).¹ WIC provides services to participants through its nearly 2,000 local WIC agencies (LAs)² and approximately 10,000 clinic sites operated by those agencies.

In 2009, as part of a major updating of WIC's food packages recommended by the IOM, WIC food packages were revised to distinguish between fully breastfeeding, partially breastfeeding, and fully formula feeding mother/infant pairs. Further, the change (1) focused on the market value of the package for the mother/infant pair for the entire first year after birth; (2) addressed differences in supplementary nutrition needs of breastfed and formula-fed infants; and (3) considered how to minimize early supplementation with formula (IOM 2005). The change was designed to increase incentives for exclusively breastfeeding mothers by providing fully breastfeeding mothers and infants with enhanced food packages.³

Another motivating factor for improving data on breastfeeding outcomes in WIC, as well as policies and practices related to breastfeeding, was a part of the Healthy, Hunger-Free Kids Act of 2010 (Public Law 111-296), which required USDA to annually compile and publish breastfeeding performance measures. FNS collects the measures from State and local WIC agencies and prepares an annual report (FNS 2013b). The summaries provide FNS a means to track breastfeeding data trends in the WIC Program and to identify the variability in breastfeeding rates at the State and local levels. With the continued emphasis on breastfeeding—increasing the proportion of infants who are ever breastfed, increasing the duration of breastfeeding, and increasing the duration of exclusive breastfeeding—in the WIC Program and the public health community at large, the WIC BPI Study comes at a critical time, when more in-depth information on the types and diversity of policies and practices offered by local and State WIC agencies can be used for program monitoring and improvement. USDA needs better data to identify what policies are effective at improving breastfeeding rates for low-income mothers and standardized methods for more uniform and timely data collection and reporting of breastfeeding rates in WIC.

¹ FNS' preliminary estimates for FY 2013 are available at <http://www.fns.usda.gov/pd/wicmain.htm>.

² Some State agencies also provide direct services to participants.

³ An Interim Rule published by USDA in 2007 changed the composition and quantities of prescribed foods in the WIC food packages (72 Federal Register 68965-69032). An evaluation of the impact of the regulatory changes on WIC package choices and breastfeeding initiation, duration, and intensity rates for infants and their mothers for the birth month and next five months postpartum investigated how States and local agencies implemented the Interim Rule (Wilde et al. 2011).

B. Study Objectives and Research Questions

The WIC BPI study and this report were planned to address the following study objectives:

1. To obtain and describe a census of breastfeeding policies and practices at State and local WIC agencies
2. To obtain and describe the breastfeeding measures currently collected and reported by State and local WIC agencies and the data systems used to do so
3. To describe the correlation between breastfeeding outcomes and WIC agency policies and practices⁴
4. To assess the WIC BPI as an ongoing data collection tool and to recommend survey enhancements and future research

A fifth objective—to develop a set of study instruments that FNS, WIC agencies, and/or FNS contractors can adapt and implement in the future to enable the tracking and reporting of WIC local agency breastfeeding policies geographically and over time—was completed by the Mathematica study team and serves as the primary data source for the first three objectives above. The team’s experience in implementing the survey, coupled with a review of the descriptive survey data, is used to address the fourth objective. In learning more about the frequency and methods of breastfeeding data collection, storage, and processing used by State and local WIC agencies, information from the WIC BPI can also be used to standardize methods in the future for more uniform and timely data collection on breastfeeding measures.

Exhibit I.1 summarizes the main topics and research questions addressed in this report. It also provides a roadmap to the location in the report where the topic and findings are discussed.

Exhibit I.1. Summary of Topics and Research Questions Addressed in the Report

Topic	Primary Research Questions	Report Chapter
Breastfeeding Policies and Practices	What are the most common policies and practices that State and local WIC agencies offer to promote breastfeeding? How do they differ by geography?	Chapter III
Breastfeeding Measures	What breastfeeding measures do State and local WIC agencies collect? How are outcomes measured and reported? What are the average values and other distributional characteristics of these measures? How do they differ by State and FNS region?	Chapters IV and V
Assessment of the WIC BPI as an Ongoing Data Collection Tool	What were the advantages and disadvantages of the instrument as implemented? What was its burden on State and local WIC agencies? Could the WIC BPI be integrated into WIC data systems? In what ways could the instrument be refined further?	Chapter VI

⁴ The results of the descriptive correlations to address the research questions for this study objective will be provided to FNS in a separate document describing options for multivariate analysis.

C. Existing Data Sources

To provide additional context and background information on the current state of breastfeeding data collection in the United States, we briefly summarize the major surveys, surveillance systems, and studies that provide information on breastfeeding measures or related topics, such as hospital maternity care policies, and that are expected to continue in the future (Exhibit I.2).⁵ These data sources are important for two primary reasons: (1) they provide standardized survey questions that we reviewed and considered in developing the WIC BPI instruments, and (2) they provide breastfeeding data specific to the WIC population, or national data that can be used for comparison to the WIC Program and/or WIC participants. To compare breastfeeding measures or outcomes across studies, it is essential to have a full understanding and appreciation for how the breastfeeding data are collected and what populations they represent because even small differences in methods can contribute to large differences in outcomes and reduced data comparability.

The National Immunization Survey is used to track national breastfeeding rates for Healthy People 2020 Health Objectives (DHHS 2013). Here the emphasis is on tracking population subgroups defined by infants' age and gender and mothers' age, race/ethnicity, education level, and income level. The National Survey of Children's Health collects and reports breastfeeding initiation, duration, and exclusivity for ages 0 to 5 years by race/ethnicity and income level (Data Resource Center for Child & Adolescent Health 2012). Data on whether newborns are being breastfed at the time of discharge from a birth facility are collected on the 2003 revised U.S. Standard Certificate of Live Birth; however, only about two-thirds of States currently use the revised version. CDC uses birth certificate information to prepare the Breastfeeding Report Card by State and to select a sample for the Pregnancy Risk Assessment Monitoring System (PRAMS; CDC 2013a, 2013c).

⁵ This is not an exhaustive list but includes the major sources of national breastfeeding data used for nutrition policy and program evaluation. Other national surveys such as the National Health and Nutrition Examination Survey (NHANES) and the National Survey of Family Growth also collect selected breastfeeding information to classify women's lactation status and infants' and young children's past and current breastfeeding for interpreting dietary intake, nutritional biochemistries, and health status. See Briefel et al. (2010) for other sources of breastfeeding measures; some have been discontinued.

Exhibit I.2. Summary of Available Breastfeeding Data Sources

Data Source (Sponsor)	Level of Data	Breastfeeding Measures or Information	Sample Design and Target Population	Periodicity
National Immunization Survey (DHHS/CDC and NCIRD)	National, State, selected large urban areas	Breastfeeding disparities (initiation, duration, and exclusivity)	U.S. children 19–35 months	Annual since 1994; breastfeeding since 2001
National Survey of Children's Health (DHHS/HRSA)	National, State, regional	Breastfeeding initiation, duration, exclusivity for ages 0–5 years by race/ethnicity and income	U.S. children 0–17 years in 50 States and DC	Every 4 years (may be annual in the future)
National Survey of Maternity Practices in Infant Nutrition and Care (mPINC) (DHHS/CDC)	National, State	Hospital breastfeeding policies	U.S. and territories; hospitals and birth centers with registered maternity beds	Biennial since 2007
Pregnancy Risk Assessment Monitoring System (DHHS/CDC)	State	Breastfeeding initiation, duration at 4 weeks by race/ethnicity, mother's age, WIC, and Medicaid	Random sample of birth certificates; women with a recent live birth and their infants in 40 participating States and New York City	Annual
State birth registries, birth record data bases (U.S. government)	State	Newborn breastfeeding at discharge from birth facility	Pregnant women and newborns in 28 States (in 2009) using the Revised 2003 U.S. Birth Certificate	Ongoing
WIC Infant and Toddler Feeding Practices Study (ITFPS)-II (USDA/ FNS)	National	Initiation, duration, exclusivity, intensity; WIC mothers' experience with WIC program practices	Nationally representative, longitudinal sample of women and children (followed up to age 2)	2013 – 2015 ^a
WIC Participant and Program Characteristics Report (USDA/FNS)	National, State, regional	Breastfeeding initiation and duration by race/ethnicity	Census of WIC participants in States, territories, and ITOs	Biennial since 1992

^a WIC ITFPS-I was conducted in 1994.

CDC = Centers for Disease Control and Prevention; DC = District of Columbia; FNS = Food and Nutrition Service; DHHS = U.S. Department of Health and Human Services; HRSA: Health Resources and Services Administration; ITO = Indian Tribal Organization; NCIRD = National Center for Immunization and Respiratory Diseases; USDA = U.S. Department of Agriculture.

Some of the national surveys also have the capacity to produce breastfeeding estimates by State or region, as shown in Exhibit I.1. In addition, some national studies collect information on WIC

participation but may not routinely report findings for WIC participants. Because the latter would not be representative of the WIC population, breastfeeding estimates for WIC participants and related program practices are collected in WIC-specific studies including the WIC Participant and Program Characteristics (WIC PC) Report⁶ and the WIC Infant and Toddler Feeding Practices Study-II (Johnson et al. 2013; Harrison et al. 2014). The WIC PC Study is a census of participant data compiled from State agency data. Special studies such as the WIC Breastfeeding Peer Counseling Implementation Study collected information on the ability of State and local WIC agencies to estimate breastfeeding initiation and duration measures among peer counseling (PC) program participants and included questions on general breastfeeding practices, but are not listed in Exhibit I.2 because the focus is on ongoing surveys and systems that assess breastfeeding.⁷

Information on national and State-level hospital breastfeeding practices is collected in the National Survey of Maternity Practices in Infant Nutrition and Care (mPINC). Conducted every two years since 2007, this survey tracks trends in hospital practices that can affect breastfeeding initiation, duration, and exclusivity (CDC 2013b).

D. Contribution of the WIC BPI

The instruments developed for the WIC BPI provide a unique opportunity to add to the knowledge of WIC breastfeeding policies and practices and how they may be associated with breastfeeding measures, in particular those that are less well documented in the WIC Program (exclusivity and intensity). Other survey instruments used in national studies or WIC-specific studies are generally focused on a single topic (such as peer counseling) or collect breastfeeding measures as an ancillary topic to other nutrition and health topics (such as NHANES). The WIC BPI is a comprehensive collection of policies and practices related to breastfeeding in the WIC Program nationwide. In addition, the WIC BPI is the first survey to include process-based outcome questions (for example, when and how clinic staff at each agency ask WIC participants about various aspects of breastfeeding) for all WIC agencies. This has been an area of particular interest because the specific way that WIC staff ask about breastfeeding may affect how WIC mothers interpret and answer the questions that are subsequently used to determine breastfeeding duration and exclusivity, for example.

The WIC PC Report is based on biennial data collected on breastfeeding initiation and duration, but not exclusivity and intensity. The baseline WIC BPI captured relevant information that can make tracking exclusivity and intensity viable in the future. Since the study included a census of all State and local WIC agencies it provides a strong research base for the assessment of how breastfeeding policies, practices, and outcomes vary across the country. The WIC BPI study features make the instruments, study findings, and public use files of value to policymakers and other researchers at relatively low burden, cost, and ease of replication in the future, relative to other data collection modes. The importance of this project, however, extends beyond the collection of agency breastfeeding measures and policy data. The findings will help FNS to aid WIC agencies in allocating

⁶ Past studies of WIC participant characteristics included a local agency survey that collected data on breastfeeding promotion and support, but the local agency survey was discontinued after 1998.

⁷ The CDC stopped collecting information in the Pregnancy Nutrition Surveillance System and the Pediatric Nutrition Surveillance in 2012 (IOM 2013; CDC 2014). Along with the WIC Program and Participants Characteristics Study, conducted every two years, the CDC surveillance systems were a main source of data on breastfeeding rates in the low-income and the WIC populations.

limited program resources and also help inform the design of future agency breastfeeding policies. Further, the WIC BPI study has the potential to contribute information that informs breastfeeding strategies that support the prevention of childhood obesity.

E. Organization of the Report

The findings in this report are presented in five additional chapters. Chapter II provides an overview of the study methodology including the design, data collection, and analysis. Chapter III describes the breastfeeding policies and practices reported by State agencies and LAs; Chapter IV describes their data systems and reporting; Chapter V describes breastfeeding outcomes, focusing on measures of breastfeeding initiation, duration, exclusivity, and intensity; and Chapter VI provides considerations for future fielding based on the lessons learned from the baseline WIC BPI in 2013. Chapter VII provides a summary of study findings and recommendations for future research. The appendices provide supplementary data exhibits and technical documentation of the study methods including the survey instruments.

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II. DATA AND METHODOLOGY

This chapter describes the WIC BPI methodology, including the study design and analysis methods. The latter includes a description of data linkages to the WIC Participant and Program Characteristics (WIC PC) 2012 data and the construction of nonresponse weights.

A. Study Design

1. Census Frame

The WIC BPI was a census of all 90 State, territory, and ITO WIC agencies as well as approximately 1,800 LAs. We obtained contact information for State WIC directors from an FNS-maintained website. For LAs, we used the FNS-maintained WIC Local Agency Directory (LAD) to identify agencies. We then sent a list to each State WIC agency (SA) to request the name, telephone number, and email address of each LA director.

2. Fielding and Response Rates

The WIC BPI survey was comprehensive, collecting in-depth information on breastfeeding policies and practices, measures, and data systems. To make the survey task more manageable, we fielded it in two parts separated by three months. Each part of the survey was fielded on the web for 10 weeks. Part 1, which covered policies and practices to promote breastfeeding, was fielded in February to April 2013. Part 2 covered breastfeeding measures, data systems, and reporting, and was fielded in July to October 2013. Prior to Part 1, we notified the seven FNS Regional Offices that the survey was forthcoming and mailed advance letters to all agencies. Shortly after, we emailed invitations and additional information about the survey to agencies and followed up periodically with email, postcard, and telephone reminders. Procedures were similar during Part 2, with the exception that we mailed an advance letter only to agencies that did not respond to Part 1.⁸

Exhibit II.1 presents the survey response rates. All 51 States (including the District of Columbia) completed both parts of the survey, as did 91% of LAs. Response rates were slightly lower among territories and ITOs, but were more than 80% within each part of the survey separately for each agency type.⁹

⁸ Instrument development, instrument testing, and study eligibility criteria are described in greater detail in Appendix A. Hard-copy versions of the instruments are included in Appendix F.

⁹Response rate 1 (RR1) using the American Association for Public Opinion Research standard definition http://www.aapor.org/Standard_Definitions2.htm.

Exhibit II.1. Number and Percentage of WIC Agencies That Completed the WIC BPI Survey

Agency Level	Total Number in U.S.	Completed Part 1 n (%)	Completed Part 2 n (%)	Completed Both Parts n (%)
State (including DC)	51	51 (100%)	51 (100%)	51 (100%)
Territory	5	4 (80%)	4 (80%)	3 (60%)
Indian Tribal Organization	34	32 (94%)	29 (85%)	28 (82%)
Local	1,750	1,658 (95%)	1,633 (94%) ^a	1,580 (91%)
Total	1,840	1,745 (95%)	1,717 (94%)^b	1,662 (91%)

Source: WIC Breastfeeding Policy Inventory Study.

^a Out of 1,742 agencies that completed Part 1 and were still in operation at the start of the Part 2 field period.

^b Out of 1,832 agencies that completed Part 1 and were still in operation at the start of the Part 2 field period.

B. Analysis Methods

1. Analysis and Presentation of Findings

This report presents findings based on descriptive, tabular analysis of breastfeeding policies and practices, data systems, and outcomes. Percentage estimates are presented for binary variables, such as whether an agency has a peer counseling program. For continuous variables, such as the number of full-time equivalent staff working at the agency, the mean, median, and the interquartile range are used to characterize the distribution.

Most tables present information in separate columns for State agencies (including the District of Columbia, ITOs, and territories) and local WIC agencies. State agency estimates are based on responses to the survey completed by State agencies, whereas local WIC agency estimates are based on responses to the survey completed by local agencies. State agencies that reported providing direct services to WIC participants were asked many of the same questions about policies and practices as local agencies. As a result, in many tables the estimates in the State agency column represent all State agencies, or the subset of agencies to which the question applied, but in some tables the State agency column represents estimates only for State agencies that were direct service providers; such agencies were asked some of the questions that were otherwise targeted to local WIC agencies. When applicable, this is explained in table and figure footnotes. We refer to these agencies as “Direct-Service State agencies.” Nearly all ITOs and territories and seven States reported providing direct services to WIC participants.

Table and figure source notes include the eligible survey sample sizes (that is, the number of State and local WIC agencies that were asked the survey question). The numbers in table rows indicate the non-missing sample size (that is, the number of valid answers that the estimate is based on). Eligible survey sample sizes are denoted in tables by n_{SA} for State agencies and n_{LA} for local agencies in table rows.

Most tables and figures present information at the State and/or local agency level. For example, what percentage of agencies has a peer counseling program? Some tables, however, present information based on the number of WIC participants that receive services from local agencies with a specific policy or practice. For example, what percentage of WIC participants receives services from an agency that has a peer counseling program? As described below, this is achieved through using participant-level weights, created by obtaining information on the number of participants

served by each WIC agency, in place of agency-level weights. Comparing the agency-level and participant-level estimates can help to make assessments of the role of agency size in agencies' use of various policies or practices and also be used to estimate the proportion of all WIC participants exposed to various policies and practices.

For many survey questions, respondents were allowed to select multiple answers. This is indicated in table and figure footnotes, where applicable. For example, several questions ask about the type of agency or clinic staff that typically perform a role, such as who collects breastfeeding information from participants. Agencies could have selected multiple responses to these questions, such as “breastfeeding coordinator” and “nutritionist,” even though a single person performs both roles.

2. Census Weights

We constructed census weights to minimize the potential for nonresponse bias, reflecting the possibility that agencies that completed the survey may differ from agencies that did not complete the survey. Because this was a census and not a sample, weights consisted solely of nonresponse adjustments and did not require further adjustment to account for selection probabilities. Because findings are presented at the State and local agency levels, there are separate weights for State and local agencies. Because data were collected in two field periods, there are also separate agency-level weights for agencies responding to Part 1 and agencies responding to Part 2. Thus, there are four sets of weights corresponding to State agencies responding to Part 1, State agencies responding to Part 2, local agencies responding to Part 1, and local agencies responding to Part 2. The weights make the estimates representative of all WIC agencies at each level (State or local) operating at the start of the first field period.¹⁰

Weights were constructed using a tabular cell-based approach. We compared characteristics of responding and nonresponding agencies and then used the factors on which the agencies differed to define adjustment cells of similar agencies. All responding agencies in a cell received the same adjustment factor. To determine the weight classes, we used agency-level information constructed from the WIC PC 2012 file to compare responding and nonresponding WIC BPI agencies.

In addition to the construction of the WIC BPI agency-level weights, we constructed another set of weights to reflect participants that receive services from the local agency, using the numbers of participants at each agency in the WIC PC 2012 data. As with the WIC BPI weights, weighting was done separately for State and local agencies and for agencies that responded to Part 1 and agencies that responded to Part 2. Tables and figures that use participant-level weights are separate from tables and figures that use agency-level weights (except for a few exhibits in Appendix D where they were combined).

3. Missing Data

We designed the survey to route respondents to relevant questions or to present only applicable response options based on the type of agency (State versus local) or answers to previous questions. To facilitate data analysis, we coded unanswered questions to distinguish logical skips from

¹⁰ The weight construction process is described in greater detail in Appendix A.

questions that respondents were presented and did not answer (missing data). Also, for some questions, “don’t know” was an available response option. We did not impute missing data or “don’t know” responses in the analysis. The percentage of agencies with missing data for questions was low in both parts of the survey. Most items had less than 1% of responses missing with some exceptions, including questions that asked agencies to provide the number of full time equivalents providing breastfeeding services at the agency; questions related to any other administrative data systems an agency used to store breastfeeding information that was separate from the WIC information system that was used to certify participants; and questions that requested agencies to provide estimates of breastfeeding exclusivity and intensity (items with more missing data are discussed in Chapter VI). Most of these topic areas were in Part 2 of the survey. As described in Chapter VI, Part 2 of the survey focused on four breastfeeding measures and was more difficult than Part 1 for some respondents to complete. A greater number of respondents broke off before completing the entire survey in Part 2 relative to Part 1. As a result, missing rates for individual items were higher in Part 2. However, we required respondents to answer critical questions in survey, so key variables of interest, such as whether an agency has a peer counseling program, the data systems it uses to store breastfeeding information, or whether the agency collects and stores information about breastfeeding measures, are missing virtually no data.

Estimates in tables and figures in this report are based on nonmissing data. Percentage estimates, for example, exclude logical skips and missing data from both the numerator and denominator of the percentage. This is also generally true for “don’t know” responses, though in some tables it was important to show the “don’t know” response option. This is noted in table and figure footnotes, where applicable.

C. Study Strengths and Limitations

Several features of the WIC BPI contributed to the strength of the study in both its design and implementation and in the data collected. These strengths, as well as several limitations of the data, are described below.

1. Strengths

Four design and implementation features contributed to the study’s strengths: (1) demonstrating the face validity of the WIC BPI, (2) fielding it to all State agencies and local WIC agencies, (3) fielding it as a web survey, and (4) splitting it into two parts.

We established face validity—expert determination that questions and response options are measuring the concepts—by using a preliminary investigation to inform instrument development and expert panel review to ensure the WIC BPI allowed for collection of in-depth and policy-relevant information on breastfeeding policies, practices, and measures. Fielding the survey as a census enabled us to meet the study objectives of obtaining comprehensive information about breastfeeding policies and practices, data systems, and outcome measures. The web mode allowed for complex routing of participants, particularly based on multiple data systems, breastfeeding outcomes, and agencies’ measurement processes. With the survey programming, we were able to obtain more comprehensive information than would have been feasible in a simpler, hard-copy format. Finally, fielding the WIC BPI in two parts spread out the burden over time. Doing so promoted data quality and high survey participation rates.

2. Limitations

Several limitations are important to consider when interpreting the study's findings. Although response rates were high overall, response rates for territories and ITOs were relatively lower. Territories had response rates of 80% in both Part 1 and Part 2 and ITOs had a response rate of 85% in Part 2. Although a nonresponse analysis was conducted and census weights were constructed to adjust for nonresponse at the agency level, nonresponse bias may exist.

A second potential limitation is that data were self-reported by agency staff. If some respondents who completed the questionnaire were not the most knowledgeable staff in the agency on a topic, then the validity of responses could be affected. Although we directed the survey invitation to agency directors, we do not know who actually completed the survey within the agency. For example, agency directors or breastfeeding coordinators may have completed the breastfeeding policies and practices modules in Part 1, while agency directors or information systems staff may have completed the Part 2 data systems questions. Further, the modular design for Part 1 offered agencies the flexibility of having multiple staff with different expertise answer questions about particular topics independently of the other topics. Thus, while the instrument demonstrated face validity through the preliminary investigation, pretest, and both FNS and expert panel review, it is still possible that agencies did not always identify the best person to respond (a common issue in organizational surveys).

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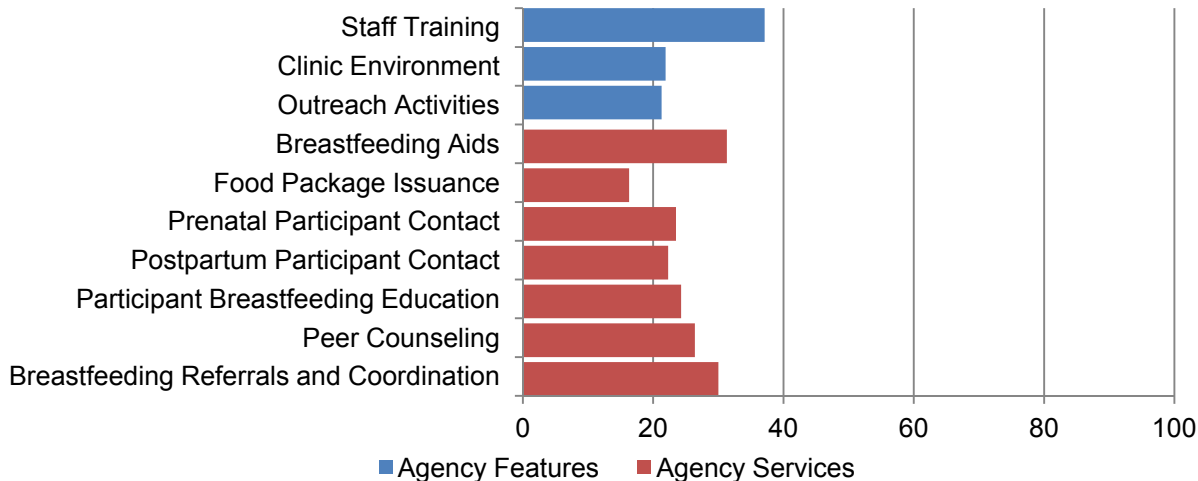
III. BREASTFEEDING POLICIES AND PRACTICES

Part 1 of the WIC BPI collected information on the policies and practices State agencies (SAs) and LAs used to promote breastfeeding. State and local agency respondents first described general features of their agencies, such as the number of clinic sites or whether the State has a WIC breastfeeding committee, and then completed 11 modules on topics including breastfeeding aids, prenatal and postpartum contact with mothers, outreach and referrals, and peer counseling. In this chapter, we present national estimates for SAs, LAs, and WIC participants on these topics. We first provide a high-level overview of agencies' policies and practices, and then describe agency features (for example, the types of staff who received breastfeeding training) and breastfeeding-related services provided to WIC participants. As described in Chapter II, we refer to SAs that reported providing direct services to WIC participants as *direct-service SAs*.

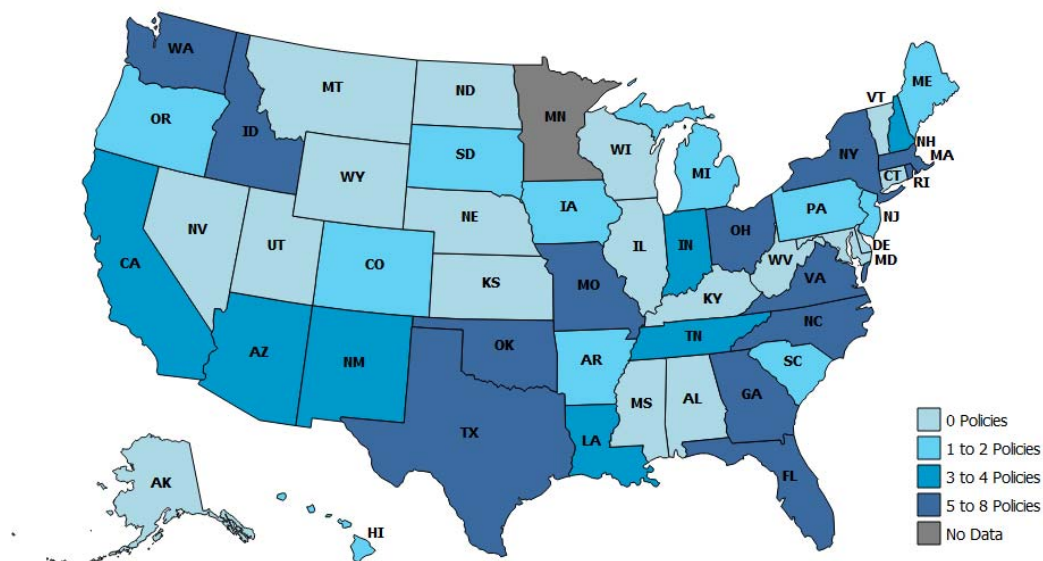
A. Policies and Practices Overview

We asked all State-level respondents whether the SA had policies that exceeded Federal requirements. Although relatively few SAs reported having such policies, they were most common in the areas of staff training (37%) and breastfeeding aids (31%; Exhibit III.1 [tabulated in Appendix Exhibit B.1]). SAs were least likely to exceed Federal requirements for food package issuance (16%). More than 25% of the 50 States reported their policies did not exceed Federal requirements in any of the 10 areas (Exhibit III.2 [tabulated in Appendix Exhibit B.2]). States in the East and West tended to have more policies that exceeded requirements.

Exhibit III.1. State WIC Agencies with Breastfeeding Promotion Policies that Exceeded Federal Requirements



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.1.

Exhibit III.2. States' Number of Breastfeeding Promotion Policies that Exceeded Federal Requirements

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 50$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.2.

Because some LAs might not have their breastfeeding-related practices formalized in written policies and the WIC BPI survey might have been the first time their procedures were documented systematically, we assessed whether each local WIC agency's practices were written in formal policies, independent of what the practices were (see Appendix Exhibits B.3 and B.4, respectively, for agency- and participant-level percentages). In the sections that follow, we present findings ordered by which LA practices were nationally most often formalized as written policies, first for agency features and then for services.

B. Agency Features

1. Staffing and Staff Training for Breastfeeding Promotion

Both State and local WIC agencies had approximately one full-time equivalent staff member (FTE) in each of several breastfeeding-related positions except for peer counselors (Exhibit III.3). On average, SAs had 1.0 FTE in the breastfeeding coordinator position and 1.9 FTEs for the WIC designated breastfeeding expert position. Among States in which peer counseling (PC) programs were present, 0.8 FTEs were allocated to PC program coordinators per State agency, and 6.1 FTEs were allocated to peer counselors (among direct-service SAs with a PC program). FTEs were similar for LAs, with the exception of peer counselors; local agencies had approximately half as many FTEs for peer counselors. LAs with FTEs greater than the median served approximately two-thirds of participants (Exhibit III.4).

Exhibit III.3. WIC Agencies' Breastfeeding-Related Positions and Credentials

	State Agencies	Local Agencies
State Agency Has a WIC Breastfeeding Committee, Group, or Work Group that Develops or Oversees WIC Breastfeeding Policies and Practices ($n_{SA} = 87$)	61.5	n.a.
Breastfeeding Coordinator ($n_{SA} = 86$; $n_{LA} = 1,600$)		
Mean FTEs	1.0	1.3
Median FTEs	1.0	0.3
FTE interquartile range	0.5–1.0	0.1–1.0
Peer Counseling Program Coordinator ($n_{SA} = 70$; $n_{LA} = 1,033$) ^a		
Mean FTEs	0.8	0.7
Median FTEs	0.3	0.2
FTE interquartile range	0.0–0.8	0.0–0.5
WIC Designated Breastfeeding Expert ($n_{SA} = 34$; $n_{LA} = 1,449$) ^b		
Mean FTEs	1.9	1.6
Median FTEs	0.3	0.1
FTE interquartile range	0.0–1.0	0.0–1.0
Peer Counselor ($n_{SA} = 33$; $n_{LA} = 1,093$) ^{a,b}		
Mean FTEs	6.1	3.3
Median FTEs	1.0	1.0
FTE interquartile range	1.0–2.0	0.4–1.8
Mean Number of Peer Counselor Staff ($n_{SA} = 26$; $n_{LA} = 666$) ^{a,b}	6.5	3.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Data are percentages unless otherwise noted. We defined *breastfeeding coordinator* as a staff person who oversees planning, implementation, evaluation, and training of breastfeeding activities in the local WIC agency or who coordinates the State's WIC breastfeeding efforts. We defined *peer counseling program coordinator* as a staff person who oversees planning, implementation, evaluation, and training of peer counseling program activities. We defined *WIC designated breastfeeding expert* as a staff member with specialized lactation training who is referred to when other staff face breastfeeding situations outside of their scope of practice. We defined *peer counselor* as a paraprofessional, hired from the target population, who serves as a model for breastfeeding behaviors and is available to mothers outside of the usual clinic hours and environment.

^a Among agencies that operate a peer counseling program.

^b Among State agencies that provide direct services to participants.

FTE = full-time equivalent; n.a. = not applicable.

Exhibit III.4. Participants at Local WIC Agencies with Staff Holding Breastfeeding-Related Positions and Credentials (Percentages)

	Participants
Breastfeeding Coordinator (n _{LA} = 1,576)	
FTEs less than or equal to the median	27.3
FTEs greater than the median	72.7
Peer Counseling Program Coordinator (n _{LA} = 1,015) ^a	
FTEs less than or equal to the median	36.3
FTEs greater than the median	63.7
WIC Designated Breastfeeding Expert (n _{LA} = 1,428)	
FTEs less than or equal to the median	32.1
FTEs greater than the median	67.9
Peer Counselor (n _{LA} = 1,075) ^a	
FTEs less than or equal to the median	30.2
FTEs greater than the median	69.8
Number of Peer Counselor Staff (n _{LA} = 652) ^a	
Number of peer counselor staff less than or equal to the median	33.3
Number of peer counselor staff greater than the median	66.7
Breastfeeding Credential Held by at Least One Member of Local Agency Staff (n _{LA} = 1,623) ^b	
International Board Certified Lactation Consultant	71.4
Certified Lactation Educator	39.6
Certified Lactation Counselor	59.5
Other certification in lactation management	14.8
Certified Lactation Specialist	6.0
None of these	7.6

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,634) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

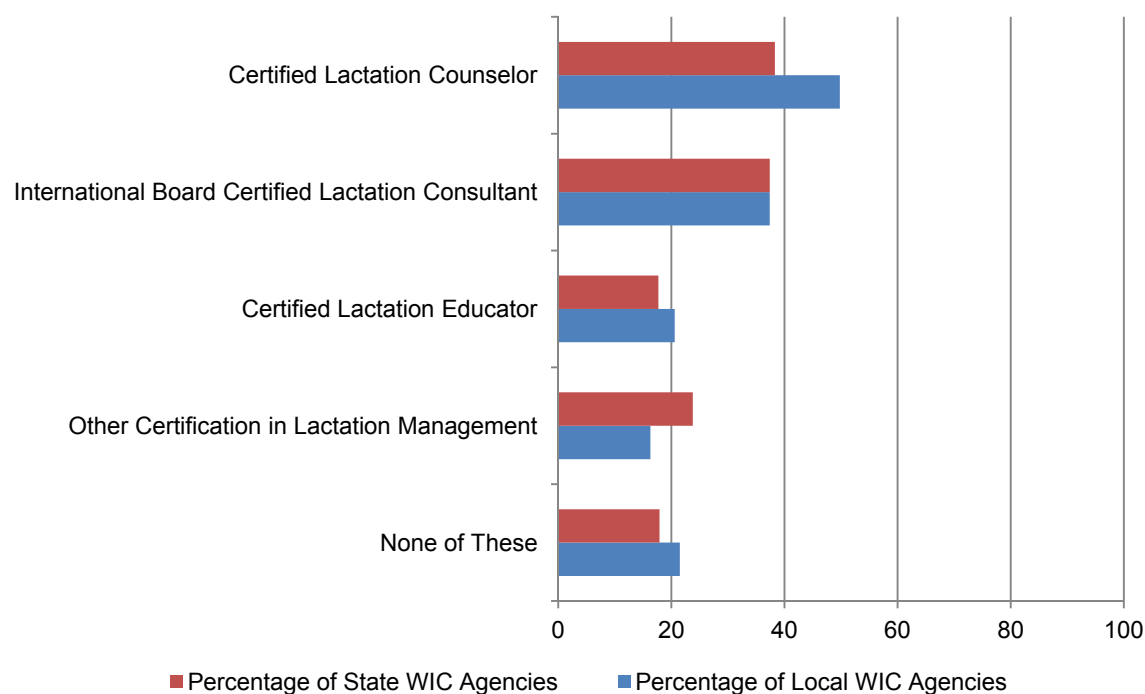
Note: We defined *breastfeeding coordinator* as a staff person who oversees planning, implementation, evaluation, and training of breastfeeding activities in the local WIC agency or who coordinates the State's WIC breastfeeding efforts. We defined *peer counseling program coordinator* as a staff person who oversees planning, implementation, evaluation, and training of peer counseling program activities. We defined *WIC designated breastfeeding expert* as a staff member with specialized lactation training who is referred to when other staff face breastfeeding situations outside of their scope of practice. We defined *peer counselor* as a paraprofessional, hired from the target population, who serves as a model for breastfeeding behaviors and is available to mothers outside of the usual clinic hours and environment.

^aAmong agencies that operate a peer counseling program.

^bMultiple answers allowed.

FTE = full-time equivalent.

Four-fifths of SAs and LAs had at least one staff member with a breastfeeding credential (that is, 18% of SAs and 22% of LAs indicated they did not have a staff member with a breastfeeding credential; Exhibit III.5 [tabulated in Appendix Exhibit B.5]). Certified Lactation Counselors were the most prevalent, particularly at LAs, followed by International Board Certified Lactation Consultants (IBCLCs; 38% of both SAs and LAs). LAs with a credentialed staff member served more than 9 of 10 WIC participants, which included 71% of participants who were served by an agency with an IBCLC (Exhibit III.4). The proportion of LAs with an IBCLC on staff within each State is presented in Appendix Exhibits B.6 and B.7.

Exhibit III.5. Breastfeeding Credentials Held by at Least One WIC Agency Staff Member

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 41$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.5.

Note: State agency estimates are among those that provide direct services to participants. Multiple answers allowed.

Training new staff on breastfeeding promotion was common, particularly for peer counselors. At least 97% of SAs and LAs with a PC program trained newly hired peer counselors (Exhibit III.6). SAs and LAs were the least likely to train newly hired WIC designated breastfeeding experts on breastfeeding promotion (55% and 68%, respectively), likely because of the specialized training such staff already bring to the position. Excluding WIC designated breastfeeding experts, 74% of SAs and 58% of LAs reported training all of the listed staff positions on breastfeeding promotion. Training for newly hired staff was often developed by more than one entity. USDA FNS was cited the most often (87% of SAs and 67% of LAs, with the latter serving 70% of participants; see Appendix Exhibit B.8), including for materials such as “Using Loving Support to Grow and Glow in WIC,”¹¹ followed by a State WIC agency (respectively, 68% and 65%). Nearly one-third of LAs (26%) also used local WIC agency-developed training for new hires.

¹¹ http://www.nal.usda.gov/wicworks/Learning_Center/BF_training.html

Exhibit III.6. WIC Agencies' Breastfeeding Promotion Training for New Hires (Percentages)

	State Agencies	Local Agencies
Staff Who Receive Breastfeeding Promotion Training as New Hires ($n_{SA} = 86$; $n_{LA} = 1,644$) ^a		
Clerical or support staff ^b	65.7	73.5
Competent Professional Authorities ^b	85.6	82.2
Peer counselors ^c	97.2	97.9
WIC designated breastfeeding experts ^b	55.4	68.0
Breastfeeding coordinators	91.7	89.1
Nutritionists	89.4	87.6
All of the above applicable staff	67.7	45.2
All of the above applicable staff except WIC designated breastfeeding experts	73.9	58.3
Developer of New Hire Breastfeeding Promotion Training ($n_{SA} = 85$; $n_{LA} = 1,639$) ^a		
A local WIC agency	n.a.	29.5
A State WIC agency	68.2	64.6
USDA Food and Nutrition Service	86.9	67.2
Breastfeeding support organization	7.1	5.8
Education or public health institution	2.6	4.9
Vendor	6.9	1.7

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: We defined *breastfeeding coordinator* as a staff person who oversees planning, implementation, evaluation, and training of breastfeeding activities in the local WIC agency or who coordinates the State's WIC breastfeeding efforts. We defined *WIC designated breastfeeding expert* as a staff member with specialized lactation training who is referred to when other staff face breastfeeding situations outside of their scope of practice. We defined *peer counselor* as a paraprofessional, hired from the target population, who serves as a model for breastfeeding behaviors and is available to mothers outside of the usual clinic hours and environment.

^aMultiple answers allowed.

^bAmong State agencies that provide direct services to participants.

^cAmong States with local agencies that operate peer counseling programs and local agencies that operate a peer counseling program.

n.a. = not applicable; USDA = United States Department of Agriculture.

Peer counselors were also the most likely to receive ongoing breastfeeding promotion training, including at all direct-service SAs with a PC program and at 97% of LAs (Exhibit III.7). Similar to trainings provided to newly hired staff, LAs' ongoing trainings were typically developed by a State WIC agency (70%), USDA FNS (59%), or a local WIC agency (38%). The majority of State and local agencies train their staff on using food packages to promote breastfeeding (93% and 96%, respectively), including exclusive breastfeeding (92% and 91%). The percentage of participants served by LAs with specific ongoing training practices is tabulated in Appendix Exhibit B.9.

Exhibit III.7. WIC Agencies' Ongoing Breastfeeding Promotion Training (Percentages)

	State Agencies	Local Agencies
Staff Who Receive Ongoing Breastfeeding Promotion Training (n _{SA} = 87; n _{LA} = 1,655) ^a		
Clerical or support staff ^b	58.2	59.5
Competent Professional Authorities ^b	83.1	77.7
Peer counselors ^c	100.0	97.3
WIC designated breastfeeding experts ^b	52.9	67.1
Breastfeeding coordinators	94.2	92.8
Nutritionists	90.8	84.9
None of these	2.4	1.2
Staff Are Trained on Using Food Packages to Promote Breastfeeding (n _{SA} = 41; n _{LA} = 1,656) ^b	92.7	96.4
Staff Are Trained on Using Food Packages to Promote Exclusive Breastfeeding (n _{SA} = 39; n _{LA} = 1,598) ^b	91.8	91.2
Developer of Ongoing Breastfeeding Promotion Training (n _{SA} = 87; n _{LA} = 1,643) ^a		
A local WIC agency	n.a.	38.4
A State WIC agency	70.1	69.5
USDA Food and Nutrition Service	81.6	59.3
Breastfeeding support organization	24.9	18.6
Education or public health institution	19.4	14.8
Vendor	17.9	5.6

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 87; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Note: We defined *breastfeeding coordinator* as a staff person who oversees planning, implementation, evaluation, and training of breastfeeding activities in the local WIC agency or who coordinates the State's WIC breastfeeding efforts. We defined *WIC designated breastfeeding expert* as a staff member with specialized lactation training who is referred to when other staff face breastfeeding situations outside of their scope of practice. We defined *peer counselor* as a paraprofessional, hired from the target population, who serves as a model for breastfeeding behaviors and is available to mothers outside of the usual clinic hours and environment.

^aMultiple answers allowed.

^bAmong State agencies that provide direct services to participants.

^cAmong State and local agencies that operate a peer counseling program.

n.a. = not applicable; USDA = United States Department of Agriculture.

Among agencies providing ongoing breastfeeding promotion training to staff, training was typically provided annually (Exhibit III.8). Peer counselors, however, received training more frequently. More than half of LAs with a PC program reported training peer counselors on a monthly or quarterly basis. Agencies training peer counselors on a monthly or quarterly basis served three-fourths of participants at agencies with a PC program (Exhibit III.9). SAs were less likely to provide ongoing breastfeeding promotion training to staff. Fifty-three percent of direct-service SAs did not follow a set schedule for training clerical or support staff; 42% did not train WIC designated breastfeeding experts regularly (Exhibit III.8).

Exhibit III.8. Among Staff Who Receive Ongoing Breastfeeding Promotion Training, Frequency of Training, by Staff Type (Percentages)

	State Agencies	Local Agencies
Clerical or Support Staff ($n_{SA} = 24$; $n_{LA} = 976$) ^a		
Monthly	9.1	9.1
Quarterly	4.2	15.0
Twice per year	3.9	6.9
Once per year	29.7	45.8
Less often than once per year	0.0	3.4
No set schedule	53.1	19.9
Competent Professional Authorities ($n_{SA} = 34$; $n_{LA} = 1,263$) ^a		
Monthly	9.1	8.2
Quarterly	14.5	16.6
Twice per year	5.7	10.5
Once per year	36.0	39.4
Less often than once per year	0.0	2.7
No set schedule	34.8	22.7
Peer Counselors ($n_{SA} = 35$; $n_{LA} = 1,101$) ^{a,b}		
Monthly	11.8	25.1
Quarterly	19.7	29.2
Twice per year	14.5	9.7
Once per year	28.5	22.3
Less often than once per year	0.0	0.4
No set schedule	25.6	13.3
WIC Designated Breastfeeding Experts ($n_{SA} = 22$; $n_{LA} = 1,146$) ^a		
Monthly	0.0	13.5
Quarterly	18.1	23.5
Twice per year	8.9	11.5
Once per year	31.4	30.4
Less often than once per year	0.0	1.4
No set schedule	41.6	19.6
Breastfeeding Coordinators ($n_{SA} = 82$; $n_{LA} = 1,522$)		
Monthly	2.4	11.6
Quarterly	20.6	24.3
Twice per year	10.0	11.8
Once per year	33.0	31.8
Less often than once per year	3.6	1.2
No set schedule	30.5	19.3
Nutritionists ($n_{SA} = 79$; $n_{LA} = 1,389$)		
Monthly	2.5	8.3
Quarterly	7.7	17.4
Twice per year	11.6	11.5
Once per year	34.0	38.5
Less often than once per year	1.2	1.7
No set schedule	42.9	22.5

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 85$; $n_{LA} = 1,635$). All tabulations are weighted to account for agency nonresponse.

Note: We defined *breastfeeding coordinator* as a staff person who oversees planning, implementation, evaluation, and training of breastfeeding activities in the local WIC agency or who coordinates the State's WIC breastfeeding efforts. We defined *WIC designated breastfeeding expert* as a staff member with specialized lactation training who is referred to when other staff face breastfeeding situations outside of their scope of practice. We defined *peer counselor* as a paraprofessional, hired from the target population, who serves as a model for breastfeeding behaviors and is available to mothers outside of the usual clinic hours and environment.

^aAmong State agencies that provide direct services to participants.

^bAmong State and local agencies that operate a peer counseling program.

Exhibit III.9. Participants at Local WIC Agencies with Ongoing Breastfeeding Promotion Training, by Staff Type (Among Staff Who Receive Ongoing Breastfeeding Promotion Training) (Percentages)

	Participants
How Often Clerical or Support Staff Complete Ongoing Breastfeeding Promotion Training ($n_{LA} = 966$)	
Monthly	17.1
Quarterly	16.6
Twice per year	8.5
Once per year	39.9
Less often than once per year	1.3
No set schedule	16.6
How Often Competent Professional Authorities Complete Ongoing Breastfeeding Promotion Training ($n_{LA} = 1,244$)	
Monthly	17.7
Quarterly	20.6
Twice per year	13.9
Once per year	31.0
Less often than once per year	1.5
No set schedule	15.2
How Often Peer Counselors Complete Ongoing Breastfeeding Promotion Training ($n_{LA} = 1,083$) ^a	
Monthly	49.0
Quarterly	24.5
Twice per year	5.9
Once per year	13.0
Less often than once per year	0.2
No set schedule	7.4
How Often WIC Designated Breastfeeding Experts Complete Ongoing Breastfeeding Promotion Training ($n_{LA} = 1,072$)	
Monthly	27.0
Quarterly	23.4
Twice per year	12.2
Once per year	20.6
Less often than once per year	1.1
No set schedule	15.7
How Often Breastfeeding Coordinators Complete Ongoing Breastfeeding Promotion Training ($n_{LA} = 1,499$)	
Monthly	25.1
Quarterly	25.0
Twice per year	12.6
Once per year	21.2
Less often than once per year	0.5
No set schedule	15.6
How Often Nutritionists Complete Ongoing Breastfeeding Promotion Training ($n_{LA} = 1,368$)	
Monthly	16.3
Quarterly	20.9
Twice per year	13.3
Once per year	32.6
Less often than once per year	0.8
No set schedule	16.1

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,612$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aAmong agencies that operate a peer counseling program.

2. The Clinic Environment

Both at direct-service SAs and LAs, staff used a variety of strategies to promote breastfeeding (Exhibit III.10). These breastfeeding-friendly strategies were widespread. Clinic staff at nearly all agencies promoted breastfeeding for as long as possible or as preferred by both the participant and her infant. Nearly 100% of participants were served by LAs where clinics reported the following practices: respecting each mother's infant feeding decision, using breastfeeding-friendly language, offering breastfeeding support on a walk-in basis, and encouraging participants to breastfeed anywhere in the clinic (Exhibit III.11). The least common practice around clinic staff interactions with WIC participants was for staff to assume all postpartum participants initiated breastfeeding (50% of direct-service SAs and 64% of LAs [Exhibit III.10] serving 69% of all participants [Exhibit III.11]).

Exhibit III.10. WIC Agencies' Clinic Environments (Percentages)

	Direct-Service State Agencies	Local Agencies
Practices Around Clinic Staff Interactions with WIC Participants		
Assume all postpartum participants initiated breastfeeding ($n_{SA} = 41$; $n_{LA} = 1,642$)	50.1	63.6
Treat exclusive breastfeeding as the norm ($n_{SA} = 41$; $n_{LA} = 1,648$)	84.5	91.0
Respect each mother's infant feeding decision ($n_{SA} = 41$; $n_{LA} = 1,654$)	97.6	99.6
Encourage participants to breastfeed anywhere in the clinic ($n_{SA} = 41$; $n_{LA} = 1,653$)	94.7	97.7
Use breastfeeding-friendly language ($n_{SA} = 41$; $n_{LA} = 1,655$)	97.6	99.7
Offer breastfeeding support to participants on a walk-in basis ($n_{SA} = 41$; $n_{LA} = 1,653$)	95.3	95.5
Promote breastfeeding for as long as possible or as preferred by both the participant and her infant ($n_{SA} = 41$; $n_{LA} = 1,655$)	100.0	99.9
Clinic Features ($n_{SA} = 41$; $n_{LA} = 1,637$)^a		
Posters showing breastfeeding	97.6	96.7
Informational bulletin boards on breastfeeding	87.8	81.1
Breastfeeding materials featuring ethnically diverse parents and infants	95.1	94.9
Chairs, pillows, footstools, or other furniture to make breastfeeding mothers more comfortable	66.1	72.7
Private space for breastfeeding	80.1	87.6
None of these	0.0	0.1

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 41$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Breastfeeding-related clinic features (for example, having a bulletin board featuring breastfeeding or providing private space for nursing mothers) were commonly reported. Most prevalent were posters showing breastfeeding (98% of direct-service SAs and 98% of LAs) and breastfeeding materials featuring ethnically diverse parents and infants (95% of both direct-service SAs and LAs; Exhibit III.10). The least common clinic feature was furniture, including chairs, pillows, or footstools to make breastfeeding mothers more comfortable (66% of direct-service SAs and 73% of LAs). Nearly all WIC participants were served by LAs with supportive features (Exhibit III.11).

Exhibit III.11. Participants at Local WIC Agencies with Specific Clinic Environments (Percentages)

	Participants
Practices Around Clinic Staff Interactions with WIC Participants	
Assume all postpartum participants initiated breastfeeding ($n_{LA} = 1,618$)	69.2
Treat exclusive breastfeeding as the norm ($n_{LA} = 1,624$)	93.4
Respect each mother's infant feeding decision ($n_{LA} = 1,630$)	100.0
Encourage participants to breastfeed anywhere in the clinic ($n_{LA} = 1,629$)	98.8
Use breastfeeding-friendly language ($n_{LA} = 1,631$)	99.6
Offer breastfeeding support to participants on a walk-in basis ($n_{LA} = 1,629$)	95.7
Promote breastfeeding for as long as possible or as preferred by both the participant and her infant ($n_{LA} = 1,631$)	100.0
Clinic Features ($n_{LA} = 1,631$)^a	
Posters showing breastfeeding	98.1
Informational bulletin boards on breastfeeding	89.8
Breastfeeding materials featuring ethnically diverse parents and infants	97.7
Chairs, pillows, footstools, or other furniture to make breastfeeding mothers more comfortable	83.0
Private space for breastfeeding	93.1

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

3. Agency Outreach

SAs and LAs both engaged in a variety of outreach activities such as a World Breastfeeding Week event (79% and 73%, respectively) or promoting the PC program in the community (64% of direct-service SAs and 60% of LAs with a program; Exhibit III.12). Only 7% of SAs and 9% of LAs reported no breastfeeding promotion/outreach activities in the past year; these LAs served only 3% of participants (Appendix Exhibit B.10), suggesting smaller agencies are less likely to participate in such activities.

Exhibit III.12. WIC Agencies' Breastfeeding Promotion and Outreach Practices (Percentages)

	State Agencies	Local Agencies
Planned or Participated in Breastfeeding Promotion/Outreach in Past Year (n _{SA} = 87; n _{LA} = 1,652) ^a		
Social marketing campaign	27.2	20.2
World Breastfeeding Week event	79.3	72.9
Community health fair	64.0	63.5
Peer counseling program promotion in the community ^b	64.0	59.9
Other	29.7	21.6
None of these	6.7	9.4
Staff Outreach to Hospitals		
Teach in-hospital prenatal classes (n _{SA} = 41; n _{LA} = 1,654) ^{a,c}	19.7	6.7
Provide in-hospital breastfeeding support (n _{SA} = 41; n _{LA} = 1,652) ^{a,c}	56.7	32.9

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 87; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Note: We defined *social marketing* as application of commercial marketing strategies to promote positive health behaviors.

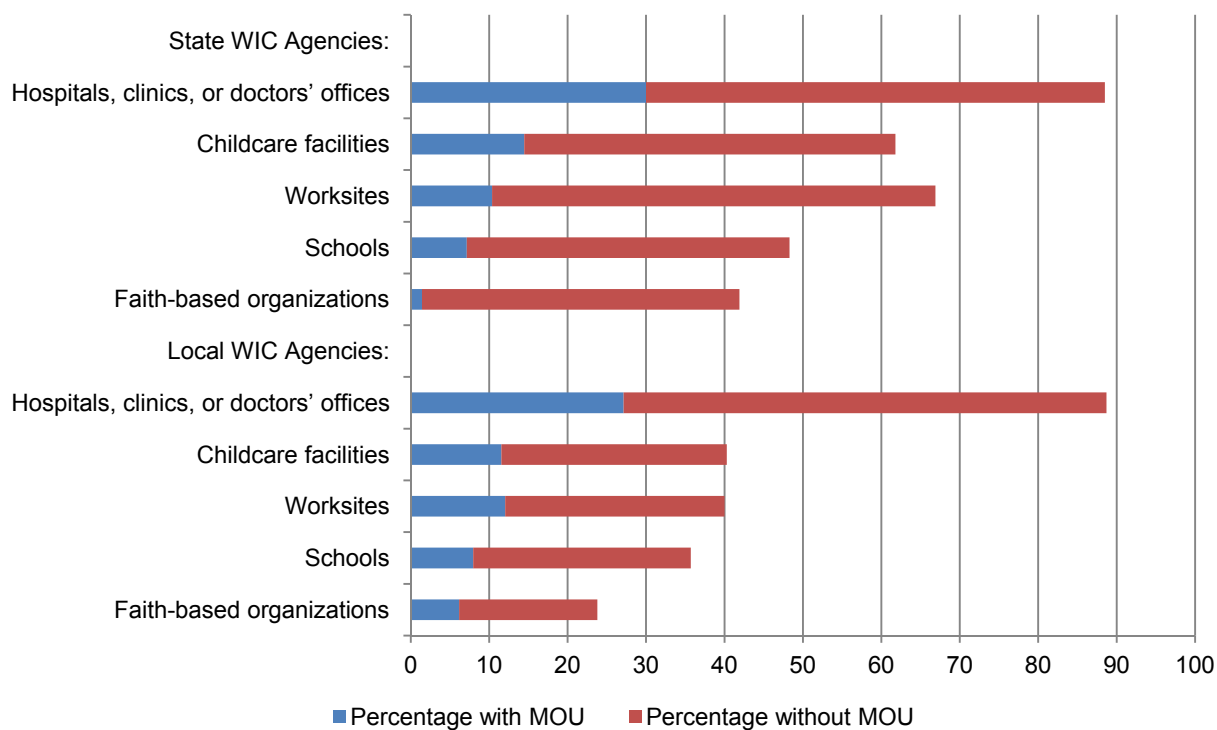
^aMultiple answers allowed.

^bAmong agencies that operate a peer counseling program.

^cAmong State agencies that provide direct services to participants.

Although only 22% of direct-service SAs and 9% of LAs had hospital-based clinic sites (data not shown), WIC agency outreach about breastfeeding to hospitals and other health organizations was common. Nearly nine out of 10 SAs and LAs reported collaborating with hospitals, clinics, or doctors' offices to promote breastfeeding (Exhibit III.13; tabulated in Appendix Exhibit B.11). Particularly among SAs, outreach to worksites (67%) and to childcare facilities (62%) was also common. Forty percent of LAs also had outreach to such sites. A minority of agencies had a memorandum of understanding (MOU) in place with outreach sites. Approximately one-third had an MOU with hospitals, clinics, or doctors' offices, and one-fifth had an MOU in place with worksites or childcare facilities (Exhibit III.13). Appendix Exhibits B.12 and B.13 display the proportion of LAs reporting outreach to worksites within each State.

Exhibit III.13. WIC Agencies' Outreach and Collaboration with Other Organizations



Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 87; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.11.

Note: Multiple answers allowed.

MOU = memorandum of understanding.

C. Breastfeeding Promotion Practices and Participant Services

We asked LAs and direct-service SAs about the practices around seven breastfeeding-related services: breastfeeding aids and breast pump issuance, food package issuance, participant contacts regarding breastfeeding, participant breastfeeding education, referrals for breastfeeding assistance, peer counseling, and breastfeeding incentives.

1. Breastfeeding Aids and Breast Pump Issuance

By far, breast pumps were the most common breastfeeding aid made available to participants (in 98% of direct-service SAs and 99% of LAs; Exhibit III.14). Breast milk storage bags were the least common (48% direct-service SAs; 36% LAs). The 86% of LAs that made aids available to participants served 86% of participants (Appendix Exhibit B.14).

Exhibit III.14. WIC Agencies' Practices Regarding Provision of Breastfeeding Aids (Percentages)

	State Agencies	Local Agencies
Aids Made Available to Participants^a		
Breast pumps (n _{SA} = 41; n _{LA} = 1,656)	97.6	98.5
Breast shells (n _{SA} = 39; n _{LA} = 1,536)	66.2	49.4
Nipple shields (n _{SA} = 40; n _{LA} = 1,542)	62.3	55.2
Nursing supplementers (n _{SA} = 37; n _{LA} = 1,484)	48.2	38.3
Breast milk storage bags (n _{SA} = 40; n _{LA} = 1,512)	47.5	35.5
Allowable Aids Maintained on an Approved List (n _{SA} = 87; n _{LA} = 1,629) ^b	64.0	85.5

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 87; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Note: We defined *breastfeeding aids* as items that directly support the initiation and continuation of breastfeeding; allowable breastfeeding aids can be purchased with federal funds. Nursing supplementers consist of a container and tubing. The tubing is attached at the breast to supplement the breast milk supply during feeding.

^aAmong State agencies that provide direct services to participants.

^bAmong local agencies that make breastfeeding aids available.

Among agencies that distributed breast pumps to participants, nearly all gave participants manual pumps (95% of direct-service SAs and 93% of LAs; Exhibit III.15). Multiuser electronic/hospital grade pumps were the type most frequently loaned (61% and 89%, respectively). Patterns were similar at the participant level (Appendix Exhibit B.15).

Exhibit III.15. WIC Agencies' Breast Pump Issuance Practices, Among Agencies that Distribute Breast Pumps

	Direct-Service State Agencies	Local Agencies
Pump Types Distributed		
Manual ($n_{SA} = 39, n_{LA} = 1,624$)		
Loans	0.0	2.6
Gives	94.9	93.4
Pedal ($n_{SA} = 37, n_{LA} = 1,565$)		
Loans	13.2	23.7
Gives	16.0	4.9
Single-user electric ($n_{SA} = 39, n_{LA} = 1,608$)		
Loans	10.7	6.2
Gives	62.9	72.4
Multiuuser electric/hospital grade ($n_{SA} = 39, n_{LA} = 1,612$)		
Loans	60.8	88.6
Gives	10.2	2.4
<i>Among agencies that distribute more than one pump type:</i>		
Pump type distributed most often ($n_{SA} = 33; n_{LA} = 1,546$)	52.1	37.3
Manual	0.0	0.2
Pedal	39.0	16.7
Single-user electric	9.0	45.8
Multiuuser electric/hospital grade		
Issuance Conditions for Most Common Pump Type ($n_{SA} = 40; n_{LA} = 1,628$)^a		
Mothers request one	23.3	28.2
Mothers certified as fully or partially breastfeeding	62.3	40.8
Mothers certified as fully breastfeeding only	27.3	19.2
Mothers committed to exclusive breastfeeding for a minimum duration	24.9	20.6
Mothers returning to work or school	72.4	76.7
Mother/infant separation (other than work or school)	62.5	74.5
Mother/infant feeding problem	58.1	76.2
Other	14.7	10.9
Other Issuance Policies or Practices		
Breast pump training may count as a nutrition education contact ($n_{SA} = 39; n_{LA} = 1,617$)	46.0	57.9
Participants are required to complete breast pump training ($n_{SA} = 40; n_{LA} = 1,620$)	74.8	75.5
Clinic staff must follow up with participants who have been issued a breast pump ($n_{SA} = 40; n_{LA} = 1,623$)	77.4	88.3
Breast pumps may be issued to a participant proxy ($n_{SA} = 40; n_{LA} = 1,618$)	51.6	53.8
Participants may be required to make a deposit before a breast pump is issued ($n_{SA} = 40; n_{LA} = 1,610$)	0.0	7.8
Participants may purchase a breast pump at a price below retail ($n_{SA} = 40; n_{LA} = 1,609$)	5.0	2.5
Third parties are contracted to issue breast pumps to WIC participants ($n_{SA} = 40; n_{LA} = 1,607$)	15.0	12.9
<i>Among Agencies Charging a Deposit:</i>		
Amount Charged for Deposit (Dollars) ($n_{SA} = 0; n_{LA} = 124$)		
Mean	—	28.89
Median	—	20.00
Interquartile range	—	20.00-30.00

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 41; n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Data are percentages unless otherwise noted.

^aMultiple answers allowed.

— indicates that no agencies met this criterion.

The most common circumstance for issuing the most-used pump type was mothers returning to work or school (72% direct-service SAs and 77% LAs), followed by separation other than work or school or feeding problems (63% direct-service SAs and 75% LAs). Staff follow-up with women issued a breast pump was common: respondents from 77% of direct-service SAs and 88% of LAs reported that clinic staff follow up with participants who were issued a pump, and three-fourths (75% direct-service SAs and 76% LAs) require participants to complete breast pump training. The share of participants served by LAs with specific practices is in Appendix Exhibit B.15.

2. Food Package Issuance

Current federal requirements allow SAs the option not to allow the routine issuance of formula to partially breastfeeding mothers in the first month after birth so that they can establish breastfeeding with their infants (FNS 2013a). Nearly 40% of SAs and one-fourth of LAs did not allow formula to be issued to fully breastfeeding participants in the first month postpartum if the participants requested it (Exhibit III.16). LAs in the Northwest were generally more likely to report issuing formula to fully breastfeeding participants in the first month postpartum at participants' request only when a doctor prescribed it¹² or not at all (Exhibit III.17 [tabulated in Appendix Exhibit B.16]). The majority of LAs and nearly half of SAs would issue formula when the mother no longer wished to exclusively breastfeed.¹³ When a participant receiving a fully breastfeeding food package requested formula, the majority of direct-service SAs and all LAs reported providing counseling about changing food packages and/or the benefits of breastfeeding. Very few (8% of direct-service SAs and 2% of LAs) issued formula without any additional steps taken. Patterns were similar at the participant level (Appendix Exhibit B.17).

Exhibit III.16. WIC Agencies' Food Package Issuance Practices (Percentages)

	State Agencies	Local Agencies
Circumstances Under Which Formula May Be Issued to Fully Breastfeeding Participants in the First Month Postpartum when Participants Request It (n_{SA} = 86; n_{LA} = 1,646)^a		
When a doctor prescribes formula	36.6	47.4
When the mother no longer wants to exclusively breastfeed	49.1	60.9
Never	36.9	25.5
Other	12.8	9.3
Steps Clinic Staff Take when a Participant on a Fully Breastfeeding Food Package Requests Formula (n_{SA} = 40; n_{LA} = 1,652)^{a,b}		
Formula is issued without any additional steps taken	7.5	1.5
Participant receives counseling about benefits of breastfeeding	84.8	91.1
Participant receives counseling about changing food packages	79.8	93.0
A minimum amount of formula is provided based on assessment	79.8	78.7
Other	7.5	9.2

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 87; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

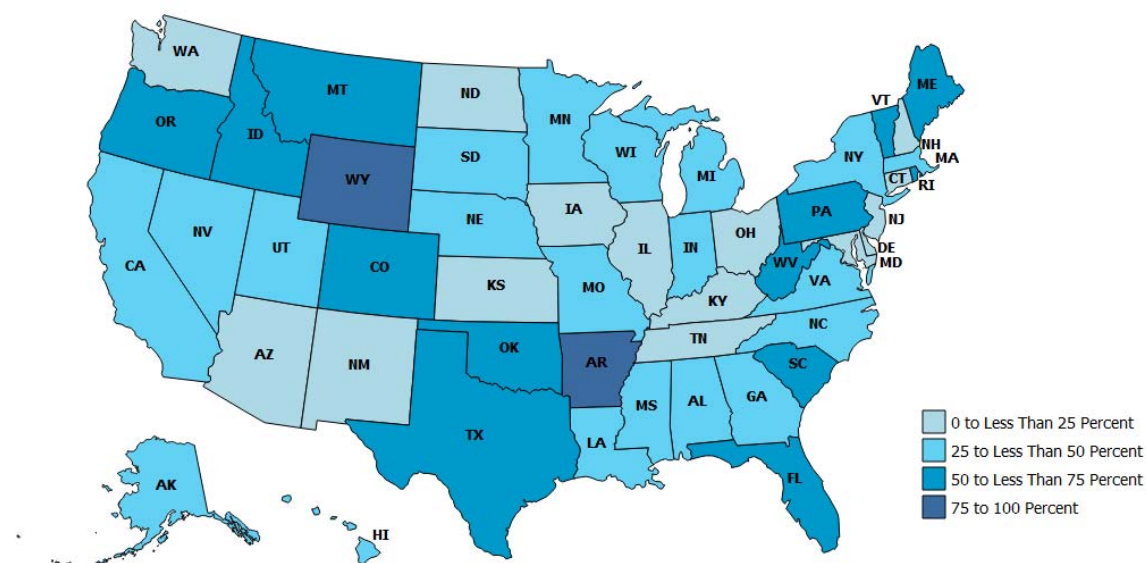
^aMultiple answers allowed.

^bAmong State agencies that provide direct services to participants.

¹² This may include exempt formula and medical foods issued in Food Package III.

¹³ The response option was "when the mother no longer wants to exclusively breastfeed," which is distinct from a participant's food package issuance.

Exhibit III.17. Proportion of Local WIC Agencies That Issued Formula to Fully Breastfeeding Participants in the First Month Postpartum at Participants' Request Only When Prescribed or Not at All, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.16.

Note: Formula prescribed by a doctor may include exempt formula and medical foods issued in Food Package III. Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

3. Participant Contacts Regarding Breastfeeding

When pregnant women enrolled in WIC, direct-service SAs reported staff typically provided information about the greater quantity and variety of foods in the fully breastfeeding food package (87%) or provided individual breastfeeding counseling (85%; Exhibit III.18). LAs were most likely to provide individual breastfeeding counseling (96%), enroll pregnant women in the peer counseling program (when available), or provide information about the greater quantity and variety of foods in the fully breastfeeding food package (86% each; Exhibit III.18). Staff frequently had contact with pregnant participants by telephone (81% of direct-service SAs and 86% of LAs), nutrition education classes (63% and 61%), or, when available, breastfeeding support groups (60% and 70%; Exhibit III.18).

Although staff at 23% of LAs interacted with pregnant participants in participants' homes (Exhibit III.18), these agencies served 19% of all participants (Exhibit III.19), suggesting the practice was more common at smaller agencies. The proportion of LAs in which prenatal contacts may occur outside of the clinic (that is, participants' homes, hospitals, or other off-site locations) within each State is presented in Appendix Exhibits B.18 and B.19.

Exhibit III.18. WIC Agencies' Prenatal WIC Participant Contact Practices (Percentages)

	Direct-Service State Agencies	Local Agencies
Breastfeeding Promotion Practices During Prenatal WIC Enrollment (n _{SA} = 41; n _{LA} = 1,658) ^a		
Give her a breastfeeding promotion kit	48.2	41.0
Enroll her in peer counseling program ^b	72.3	86.1
Include her in prenatal breastfeeding education classes	58.8	59.0
Offer her participation in a breastfeeding support group ^c	37.2	65.0
Provide individual breastfeeding counseling	85.4	95.8
Give her information about the greater quantity and variety of foods in the fully breastfeeding food package	87.4	85.6
Other	7.3	11.2
Locations Where Interactions with Pregnant WIC Participants May Occur (n _{SA} = 41; n _{LA} = 1,656) ^a		
Nutrition education classes	63.1	60.6
Breastfeeding support groups ^c	59.9	69.6
Participants' homes	39.6	22.8
By telephone	80.8	86.2
Hospitals	27.5	23.6
Other off-site locations	22.6	17.0

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 41; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

^bAmong agencies that operate a peer counseling program.

^cAmong agencies that provide breastfeeding support groups.

Exhibit III.19. Participants at Local Agencies with Specific Prenatal WIC Participant Contact Practices (Percentages)

	Participants
Breastfeeding Promotion Practices During Prenatal WIC Enrollment ($n_{LA} = 1,634$)^a	
Give her a breastfeeding promotion kit	42.2
Enroll her in peer counseling program ^b	81.5
Include her in prenatal breastfeeding education classes	82.4
Offer her participation in a breastfeeding support group ^c	62.5
Provide individual breastfeeding counseling	96.5
Give her information about the greater quantity and variety of foods in the fully breastfeeding food package	88.4
Other	11.9
Locations Where Interactions with Pregnant WIC Participants May Occur ($n_{LA} = 1,632$)^a	
Nutrition education classes	81.4
Breastfeeding support groups ^c	80.8
Participants' homes	19.2
By telephone	92.8
Hospitals	30.1
Other off-site locations	23.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

^bAmong agencies that operate a peer counseling program.

^cAmong agencies that provide breastfeeding support groups.

More than half of local-level respondents reported their staff (including peer counselors in agencies with a PC program) had contacts with pregnant participants that included breastfeeding promotion or support on a once per trimester basis for the first two trimesters of pregnancy (Exhibit III.20). Another one-third of LAs reported more frequent contact (twice per trimester or monthly) that included breastfeeding promotion or support during those trimesters. Compared to earlier in pregnancy, contact was more frequent in the third trimester, with staff at 42% of LAs reporting at least monthly, breastfeeding-related contact with participants. Direct-service SAs reported more frequent contact in the prenatal period compared to LAs; more than half had staff (including peer counselors if applicable) in at least monthly contact throughout pregnancy (Appendix Exhibit B.20).

Exhibit III.20. Frequency of Contact Including Breastfeeding Promotion and Support with Most Pregnant Participants at Local WIC Agencies, by Pregnancy Trimester (Percentages)

	Zero Times per Trimester	Once per Trimester	Twice per Trimester	Monthly	More than Once per Month but Not Weekly	Weekly
First Trimester (n _{LA} = 1,646)	1.5	60.7	14.1	21.0	2.7	0.0
Second Trimester (n _{LA} = 1,630)	1.2	52.7	18.6	23.7	3.8	0.1
Third Trimester (n _{LA} = 1,634)	0.6	39.9	17.8	24.1	14.6	3.0

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Note: Among agencies that operate a peer counseling program, contacts with peer counselors were included.

For women enrolling in WIC after giving birth, many breastfeeding-related practices were similar to those for women enrolling prenatally (Exhibit III.21). Nearly all direct-service SAs and LAs provided individual breastfeeding counseling (95% and 97%) and gave information about the greater quantity and variety of foods in the fully breastfeeding food package (88% each). Fewer agencies included postpartum enrollees in breastfeeding education classes (44% of direct-service SAs and 29% of LAs) or provided a breastfeeding promotion kit (42% and 27%). Compared to their interactions with pregnant participants (Exhibit III.18), LA staff reported interacting with postpartum participants more often in hospitals (33% versus 24%) or participants' homes (32% versus 23%) and less often in nutrition education classes (51% versus 61%). Appendix Exhibit B.21 presents the proportion of participants served by LAs with specific practices, and Appendix Exhibits B.22 and B.23 present the proportion of LAs within each State in which postpartum contacts may occur in participants' homes, hospitals, or other off-site locations.

Exhibit III.21. WIC Agencies' Postpartum Participant Contact Practices

	Direct-Service State Agencies	Local Agencies
Breastfeeding Promotion Practices During Postpartum WIC Enrollment (n_{SA} = 41; n_{LA} = 1,657)^a		
Conduct a breastfeeding assessment	63.5	74.7
Give her a breastfeeding promotion kit	41.6	26.7
Enroll her in peer counseling program ^b	63.7	77.1
Include her in breastfeeding education classes	44.1	29.1
Offer her participation in a breastfeeding support group ^c	48.4	66.6
Provide individual breastfeeding counseling	95.1	96.9
Give her information about the greater quantity and variety of foods in the fully breastfeeding food package	87.8	88.0
Other	4.9	7.7
Locations Where Interactions with Postpartum WIC Participants May Occur (n_{SA} = 41; n_{LA} = 1,656)^a		
Nutrition education classes	55.9	50.9
Breastfeeding support groups ^c	56.1	68.5
Participants' homes	46.8	31.6
By telephone	85.4	89.1
Hospitals	47.1	32.8
Other off-site locations	19.7	15.5
Who Initiates Contact After a Pregnant Participant Has Given Birth		
Participant notifies agency (n _{SA} = 39; n _{LA} = 1,601)	91.9	96.9
Agency contacts participant around her expected date of delivery (n _{SA} = 36; n _{LA} = 1,477)	77.4	63.6
<i>Among Agencies Making Contact around the Expected Date of Delivery:</i>		
Number of Days Around Expected Date of Delivery in Which Contact Is Attempted (n_{SA} = 27; n_{LA} = 934)		
Mean	8.4	7.4
Median	7	7
Interquartile range	5–10	3–7
Staff Who Contact Participants After Delivery (n_{SA} = 28; n_{LA} = 939)^a		
Clerical or support staff	21.3	23.9
Competent Professional Authorities	29.3	20.3
Peer counselors ^b	100.0	98.1
WIC designated breastfeeding experts	6.9	25.2
Breastfeeding coordinators	25.5	28.7
Nutritionists	17.7	14.6

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 41; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Note: Data are percentages unless otherwise noted.

^aMultiple answers allowed.

^bAmong agencies that operate a peer counseling program.

^cAmong agencies that provide breastfeeding support groups.

Although it was more common for participants to notify the WIC agency after giving birth, 77% of direct-service SAs and 64% of LAs attempted to contact participants around their expected dates of delivery. These LAs served 81% of the participant population (Appendix Exhibit B.21). On

average, these contacts were attempted within seven days of the expected date of delivery. Agencies reported many different staff made these contacts. Across all agencies, breastfeeding coordinators were cited most often; among agencies with a PC program, peer counselors nearly universally made these contact attempts (100% of direct-service SAs and 98% of LAs).

On average, direct-service SAs and LAs both attempted to contact women more than once during the first week postpartum (respectively 1.6 and 1.4 times; Exhibit III.22). Agencies attempted contact nearly five times over the first six months postpartum. Where applicable, contact attempts included those by peer counselors.

Exhibit III.22. WIC Agencies' Frequency of Attempted Contact with Postpartum WIC Participants

	Direct-Service State Agencies	Local Agencies
First Week Postpartum ($n_{SA} = 41$; $n_{LA} = 1,642$)		
Mean	1.6	1.4
Median	1	1
Interquartile range	1-2	1-2
First Six Months Postpartum ($n_{SA} = 41$; $n_{LA} = 1,645$)		
Mean	4.7	4.5
Median	4	3
Interquartile range	2-6	2-6

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 41$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Contacts with peer counselors were included among agencies that operate a peer counseling program.

4. Participant Breastfeeding Education

Most agencies reported using participant breastfeeding education materials developed by USDA FNS or a State WIC agency (85% and 83% of direct-service SAs, respectively, and 51% and 79% of LAs, respectively; Exhibit III.23). Nearly one-fifth of direct-service SAs (19%) and one-tenth of LAs used materials developed by a vendor. Forty percent of local WIC agencies developed their own breastfeeding education materials.

Exhibit III.23. WIC Agencies' Participant Breastfeeding Education Practices (Percentages)

	State Agencies	Local Agencies
Developer of Participant Breastfeeding Education ($n_{SA} = 41$; $n_{LA} = 1,655$) ^{a,b}		
A local WIC agency	n.a.	40.1
A State WIC agency	83.0	79.0
USDA Food and Nutrition Service	85.0	50.6
Breastfeeding support organization	7.2	7.9
Education or public health institution	12.0	10.9
Vendor	19.2	10.4
Don't know	0.0	1.9
Frequency with which Agency Updates Breastfeeding Education Materials ($n_{SA} = 87$; $n_{LA} = 1,656$)		
More than once a year	14.9	20.8
Once a year	16.2	23.4
Once every two years	4.5	3.0
Less than once every two years	2.2	1.0
No set schedule	57.7	51.7
State agency does not update materials	4.5	n.a.
Languages in which Education Is Offered ($n_{SA} = 41$; $n_{LA} = 1,657$) ^{a,b}		
Spanish	55.4	87.4
Chinese	0.0	9.3
French	0.0	6.5
Korean	0.0	4.4
A Native North American Language	9.7	2.3
Vietnamese	0.0	8.8
Other	2.9	14.6
Format of Breastfeeding Education ($n_{SA} = 41$; $n_{LA} = 1,657$) ^{a,b}		
In-person group sessions	58.8	64.9
In-person individual sessions	97.6	98.5
Print materials	95.1	96.3
Telephone	80.7	79.7
Computer in the clinic	9.6	17.1
Website	21.2	30.0
Email	9.6	12.2
Instant messaging service	12.0	4.2
Text messages	41.5	22.7

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

^bAmong State agencies that provide direct services to participants.

n.a. = not applicable; USDA = United States Department of Agriculture.

Breastfeeding education was offered in many different languages and formats. Nearly all participants (96%) received services from an LA providing breastfeeding education in Spanish, and 23% and 19% received services from an LA providing it in Vietnamese and Chinese, respectively (Exhibit III.24).¹⁴ In-person education sessions, including those offered to both groups and

¹⁴ Many LA respondents indicated in the "other, specify" field for the question that they used a language line service or interpreters to meet the needs of participants with limited English proficiency.

individuals, were nearly universally used among direct-service SAs and LAs (more than 95% for all such agencies). Although more traditional technologies such as in-person individual or group sessions, print materials, and telephone-based education were more common overall, a substantial number of agencies reported offering education through newer, electronic media such as text messages (42% of direct-service SAs and 23% of LAs), a website (21% and 30%), or instant messaging (12% and 4%; Exhibit III.23). The proportion of LAs within each State that used FNS-developed materials for participant breastfeeding education is presented in Appendix Exhibits B.24 and B.25.

Exhibit III.24. Participants at Local WIC Agencies with Specific Breastfeeding Education Practices (Percentages)

	Participants
Developer of Participant Breastfeeding Education ($n_{LA} = 1,631$)^a	
A local WIC agency	54.6
A State WIC agency	75.3
USDA Food and Nutrition Service	53.0
Breastfeeding support organization	7.6
Education or public health institution	12.6
Vendor	10.4
Don't know	0.5
Frequency with Which Agency Updates Breastfeeding Education Materials ($n_{LA} = 1,632$)	
More than once a year	22.2
Once a year	22.1
Once every two years	4.3
Less than once every two years	2.1
No set schedule	49.3
Languages in Which Education Is Offered ($n_{LA} = 1,634$)^a	
Spanish	96.4
Chinese	18.9
French	8.6
Korean	11.8
A Native North American Language	2.5
Vietnamese	22.5
Other	32.2
Format of Breastfeeding Education ($n_{LA} = 1,633$)^a	
In-person group sessions	89.3
In-person individual sessions	99.2
Print materials	97.8
Telephone	89.6
Computer in the clinic	27.2
Website	42.6
Email	14.6
Instant messaging service	3.5
Text messages	23.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

USDA = United States Department of Agriculture.

Agencies typically offered both pregnant and postpartum participants in-person breastfeeding education when it was requested or during certification or clinic visits (Exhibit III.25). Techniques used for in-person breastfeeding education were varied. Three-fourths of LAs offering individual sessions used motivational interviewing; these agencies served 82% of participants (Appendix Exhibit B.26). Role playing was used the least (20% of direct-service SAs and 29% of LAs).

Exhibit III.25. WIC Agencies' In-Person Participant Breastfeeding Education Practices (Percentages)

	Direct-Service State Agencies	Local Agencies
Times When Pregnant Participants Receive In-Person Breastfeeding Education ($n_{SA} = 40$; $n_{LA} = 1,646$) ^a		
Whenever participants request it	62.2	69.5
At each certification visit	80.1	66.4
At each clinic visit	55.3	65.6
Twice per certification period	27.4	21.6
Quarterly	7.5	6.6
Monthly	19.8	10.7
Other	19.6	11.9
Times When Postpartum Participants Receive In-Person Breastfeeding Education ($n_{SA} = 39$; $n_{LA} = 1,634$) ^a		
Whenever participants request it	68.7	79.8
At each certification visit	69.6	69.3
At each clinic visit	59.1	58.3
Twice per certification period	12.9	11.8
Quarterly	7.7	4.4
Monthly	12.8	10.7
Other	20.3	16.6
Techniques Used for In-Person Breastfeeding Education ($n_{SA} = 40$; $n_{LA} = 1,646$) ^a		
Lecture or presentation	35.5	54.1
Motivational interviewing ^b	64.8	77.6
Cultural tailoring of the content	65.5	51.6
Practice or role playing	19.9	29.4
Facilitated discussion ^c	44.7	77.0
Participants set the agenda	57.5	61.3

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 40$; $n_{LA} = 1,647$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

^b Among agencies with in-person individual sessions for breastfeeding education.

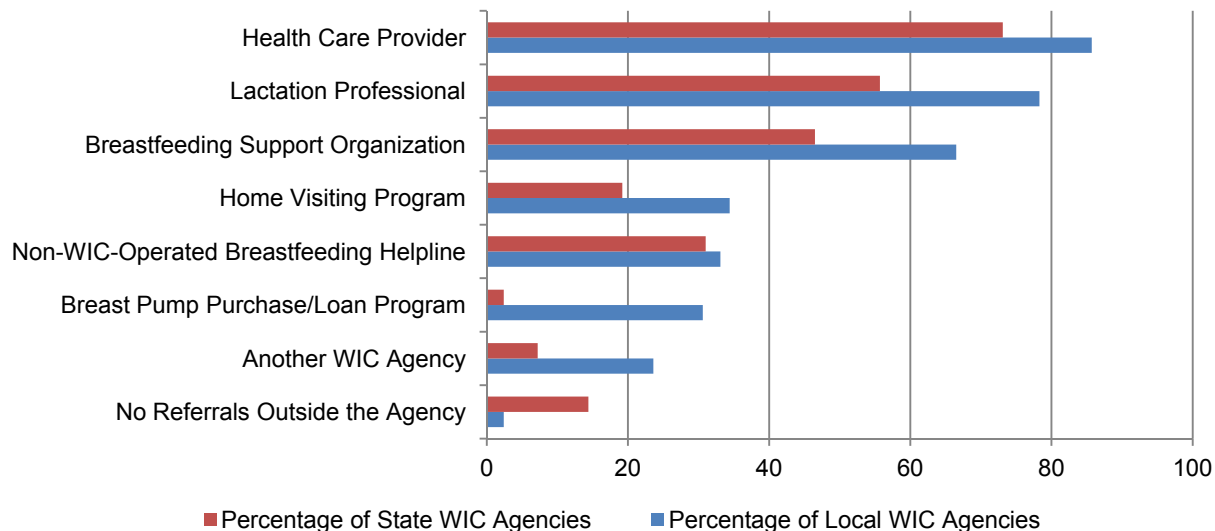
^c Among agencies with in-person group sessions for breastfeeding education.

5. Referrals for Breastfeeding Assistance

Agencies often referred participants with breastfeeding-related problems to health care providers (73% of direct-service SAs and 86% of LAs) or lactation professionals (56% and 78%, respectively; Exhibit III.26 [tabulated in Appendix Exhibit B.27]). Although nearly one-fourth of local agency respondents reported referring participants to another WIC agency, the practice was less common among direct-service SAs (7%). Few agencies (14% of direct-service SAs and 2% of

LAs) reported making no referrals outside the agency. The majority of direct-service SAs (82%) maintained a standardized list for making referrals, and two-thirds of LAs used such a list (Exhibit III.27). LAs using a standardized list served 75% of participants (Exhibit III.28).

Exhibit III.26. Organizations to which WIC Agencies Refer Participants with Breastfeeding Problems



Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 41; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.27.

Note: State agency estimates are among those that provide direct services to participants.

Exhibit III.27. WIC Agencies' Referral Practices for Clients Needing Breastfeeding Support (Percentages)

	Direct-Service State Agencies	Local Agencies
State Agency Maintains a Standardized List Local Agencies May Use for Making Referrals (n _{SA} = 34)	81.6	n.a.
Local Agency Uses a Standardized List for Making Referrals (n _{LA} = 1,609)	n.a.	67.5
<i>Agency Provides Breastfeeding Helpline Services to Participants</i>		
Local WIC agency-operated helpline (n _{LA} = 1,627)	n.a.	36.7
State WIC agency-operated helpline (n _{SA} = 41; n _{LA} = 1,562)	41.1	22.2

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 41; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Note: We defined a *helpline* as a local or toll-free telephone number that is dedicated to providing information on breastfeeding, with staff either answering calls in real time or responding to messages. Helplines are also called hotlines or warmlines and do not include the WIC clinic's telephone number.

^a Multiple answers allowed.

n.a. = not applicable.

Exhibit III.28. Participants at Local WIC Agencies with Specific Referral Practices for Clients Needing Breastfeeding Support (Percentages)

	Participants
Agency Uses a Standardized List for Making Referrals ($n_{LA} = 1,585$)	74.8
Organizations to which Agency Refers Participants with Breastfeeding Problems ($n_{LA} = 1,632$) ^a	
Another WIC agency	24.9
Lactation professional	76.0
Breastfeeding support organization	74.4
Health care provider	86.7
Breast pump purchase/loan program	36.8
Non-WIC-operated breastfeeding helpline	41.7
Home visiting program	36.0
Participants not referred outside the agency	3.8
Agency Provides Breastfeeding Helpline Services to Participants	
Local WIC agency-operated helpline ($n_{LA} = 1,604$)	57.3
State WIC agency-operated helpline ($n_{LA} = 1,538$)	29.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

Note: We defined a *helpline* as a local or toll-free telephone number that is dedicated to providing information on breastfeeding, with staff either answering calls in real time or responding to messages. Helplines are also called hotlines or warmlines and do not include the WIC clinic's telephone number.

^a Multiple answers allowed.

Although one-third of agencies referred participants with breastfeeding problems to a helpline operated by a non-WIC entity (Exhibit III.26), more than half of participants (57%) were served by a local agency operating a breastfeeding helpline (Exhibit III.28). Nearly one-third (30%) had access to a State WIC agency-operated helpline.

6. Peer Counseling

Ninety-three percent of State agencies reported operating or overseeing LAs that had peer counseling programs (Appendix Exhibit B.28). Sixty-nine percent of LAs operated a PC program in an average of 83% of their clinic sites (Exhibit III.29). These agencies, which served 86% of the WIC population, were more prevalent in the Eastern portion of the United States (Exhibit III.30 [tabulated in Appendix Exhibit B.29]). WIC staff initiated most enrollment efforts, although among LAs without automatic enrollment, at 68% of them, participants could request enrollment; about 91% offered enrollment at the prenatal visit, 84% at postpartum certification visits, and 76% when participants had breastfeeding problems (Exhibit III.29). Ninety-one percent of participants at LAs with a PC program but not automatic enrollment were served by an agency that offered enrollment at the prenatal certification visit, suggesting that nearly all participants served by an agency with a PC program could access peer counseling services prenatally (Exhibit III.31). Fewer than half were served by agencies offering automatic enrollment.

Exhibit III.29. Local WIC Agencies' Peer Counseling Program Characteristics and Practices

	Local Agencies
Agency Operates a Peer Counseling Program (n _{LA} = 1,658)	68.5
<i>Among Local WIC Agencies Operating Peer Counseling Programs:</i>	
Percentage of Clinic Sites Operating Program (n _{LA} = 1,135)	
Mean	83.0
Median	100.0
Interquartile range	67-100
Pregnant Participants Are Eligible to Participate in Program (n _{LA} = 1,136)	97.2
Percentage of Agency's Pregnant (if Applicable) and Postpartum Participants in Program (n _{LA} = 1,108)	
Mean	61.5
Median	70.0
Interquartile range	30-90
Methods for Enrollment in the Program (n _{LA} = 1,136) ^a	
Automatic	52.7
Offered at the prenatal certification visit ^b	90.9
Offered at the postpartum certification or recertification visit ^b	84.2
Participants request enrollment ^b	68.3
Only when peer counselors can add to their caseloads ^b	7.7
Random selection ^b	2.3
Participants referred when experiencing breastfeeding problems ^b	75.7

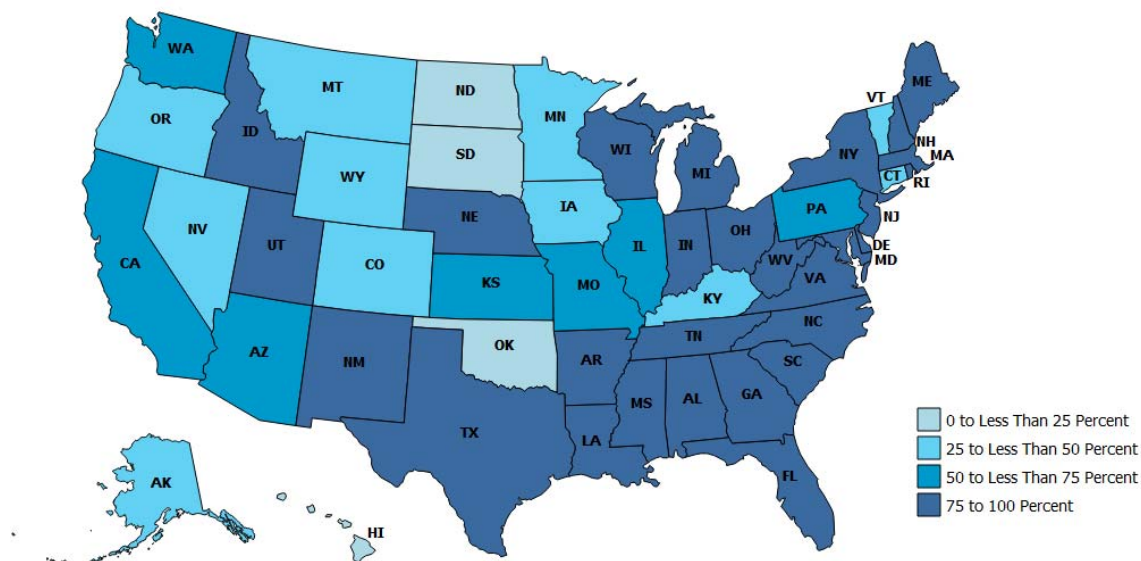
Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Note: Data are percentages unless otherwise noted.

^a Multiple answers allowed.

^b Among agencies where enrollment was not automatic.

Exhibit III.30. Proportion of Local WIC Agencies with a Peer Counseling Program, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.29.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit III.31. Participants at Local WIC Agencies, by Peer Counseling Program Characteristics and Practices (Percentages)

	Participants
Agency Operates a Peer Counseling Program (n _{LA} = 1,634)	86.4
<i>Among Local WIC Agencies Operating Peer Counseling Programs:</i>	
Percentage of Clinic Sites Operating Program (n _{LA} = 1,116) ^a	
Less than or equal to the 25th percentile of percentage of clinic sites	38.6
Greater than the 25th percentile of percentage of clinic sites	61.4
Pregnant Participants Are Eligible to Participate in Program (n _{LA} = 1,118)	98.4
Percentage of Agency's Pregnant (if Applicable) and Postpartum Participants in Program (n _{LA} = 1,089)	
Percentage less than or equal to the median	57.0
Percentage greater than the median	43.0
Methods for Enrollment in the Program (n _{LA} = 1,117) ^b	
Automatic	44.5
Offered at the prenatal certification visit ^c	90.6
Offered at the postpartum certification or recertification visit ^c	70.1
Participants request enrollment ^c	72.6
Only when peer counselors can add to their caseloads ^c	25.0
Random selection ^c	5.0
Participants are referred when experiencing breastfeeding problems ^c	79.0

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,634) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^a The median percentage of clinic sites operating a peer counseling program was 100%.

^b Multiple answers allowed.

^c Among agencies where enrollment was not automatic.

Compared to prenatal participant contacts overall (Exhibit III.20), peer counselors had more frequent contact with pregnant women; 61% of LAs reported monthly peer counselor contacts during the prenatal period (Exhibit III.32). In the first month postpartum, LAs' peer counselors were typically in weekly contact; contacts were less intensive after the first month, with the majority of agencies having monthly contact attempts from 5 to 24 weeks postpartum. Patterns were similar among direct-service SAs (Appendix Exhibit B.30).

Exhibit III.32. Minimum Frequency of Peer Counselor Contact Attempts with Participants at Local WIC Agencies Operating a Peer Counseling Program, by Time Period Relative to Birth (Percentages)

	Weekly	Monthly	Other
Prenatal ($n_{LA} = 1,112$)	4.5	61.0	34.5
First Week Postpartum ($n_{LA} = 1,104$)	71.0	4.7	24.3
Two to Four Weeks Postpartum ($n_{LA} = 1,107$)	62.5	19.9	17.6
Five to 12 Weeks Postpartum ($n_{LA} = 1,096$)	7.9	66.3	25.8
Thirteen to 24 Weeks Postpartum ($n_{LA} = 1,088$)	2.3	59.8	37.9

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,140$). All tabulations are weighted to account for agency nonresponse.

Note: The most common “other” response during the prenatal period and two to four weeks postpartum was three times (119 and 14 agencies, respectively). The most common “other” response during the first week postpartum was two times (128 agencies). The most common “other” response during five to 12 weeks and 13 to 24 weeks postpartum was as requested or needed (159 and 233 agencies, respectively). “Don’t know” responses were excluded.

7. Breastfeeding Incentives

Sixty-six percent of direct-service SAs and 41% of LAs reported providing incentives without monetary value to participants to initiate or continue breastfeeding (Exhibit III.33). Half of direct-service SAs and 41% of LAs promoted breastfeeding with incentives of nominal value. In response to an open-ended question, respondents described the items that were used; items such as breast pads or microwave sterilization bags, education materials, or baby clothes or blankets were commonly mentioned. LAs providing items without monetary value and items of nominal value as incentives served 56% and 46% of participants, respectively (Exhibit III.34).

Exhibit III.33. WIC Agencies’ Breastfeeding Incentives Provided to Participants to Initiate or Continue Breastfeeding (Percentages)

	Direct-Service State Agencies	Local Agencies
Items Without Monetary Value ($n_{SA} = 38$; $n_{LA} = 1,615$)	65.9	41.2
Items of Nominal Value ($n_{SA} = 38$; $n_{LA} = 1,610$)	52.6	41.4

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 41$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Exhibit III.34. Participants at Local WIC Agencies Providing Breastfeeding Incentives to Participants to Initiate or Continue Breastfeeding (Percentages)

	Participants
Items Without Monetary Value ($n_{LA} = 1,591$)	56.3
Items of Nominal Value ($n_{LA} = 1,586$)	46.3

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

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IV. BREASTFEEDING DATA SYSTEMS AND REPORTING PRACTICES

Part 2 of the WIC BPI collected information on data systems that State and local WIC agencies used to store breastfeeding information. The survey also asked agencies about their breastfeeding data linkages and collection and reporting practices. In this chapter, we describe the findings related to these topics.

A. Prevalence and Use of Multiple Data Systems

Acknowledging that different SAs have different management information systems and assuming this was also the case for LAs, the survey referred to the computer system used to certify participants as the “WIC information system.” It also asked about any other administrative data systems an agency used to store breastfeeding information that was separate from the WIC information system. This information could be used, for example, for administering nutrition education, peer counseling, breast pump issuance, or something else related to WIC program operations. The separate data system could be a database, spreadsheet, or some other data storage system, including paper records.

More than one-third of agencies used another administrative data system (Exhibit IV.1). Thirty-eight percent of SAs and 37% of LAs stored breastfeeding information in another administrative system separate from the WIC information system. Asked the reason why agencies maintain data in more than one system, two-thirds of agencies with another administrative data system reported doing so because the WIC information system does not track every aspect of program operations (66% of SAs and 65% of LAs). Other common reasons were that the WIC information system cannot produce desired reports (59% of SAs and 36% of LAs with another administrative data system) and that the agency wanted to collect information not collected as part of routine program operations (35% of SAs and 40% of LAs with another administrative data system).

About three-quarters of SAs (74%) and two-thirds of LAs (67%) with another administrative data system included some, but not all, WIC participants in that data system. For LAs, the most common type of other administrative data systems were peer counseling program databases (61%) and breast pump issuance databases (62%).

The percentage of LAs that used another administrative data system varied geographically by State, as shown in the map in Appendix Exhibit C.1 (and tabulated in Appendix Exhibit C.2). The percentages were highest among local agencies in selected States in the West, Northeast, and Mid-Atlantic, exceeding 48% for many States in these regions.

The WIC BPI also asked agencies whether they maintained a separate data system (not used to administer the WIC program), such as a data system containing survey data or qualitative data from participant interviews or focus groups. About 18% of SAs and 12% of LAs stored breastfeeding information in a separate data system (Exhibit IV.2). The most frequently used data sources were qualitative interviews with WIC participants (33% of SAs and 41% of LAs with a separate data system) and peer counseling reports or databases (33% of SAs and 20% of LAs with a separate data system). The information in the separate data system covered a sample of the target population, rather than the entire target population, for about two-thirds of SAs and LAs (65% of SAs and 67% of LAs).

Exhibit IV.1. State and Local Agencies' Administrative Data Systems (Percentages)

	State Agencies	Local Agencies
Agency Stores Breastfeeding Information in an Administrative Data System Separate from the WIC Information System (n _{SA} = 84; n _{LA} = 1,633)	38.4	36.8
<i>Among Agencies with Multiple Data Systems:</i>		
Reasons Agency Maintains Data in Multiple Systems (n _{SA} = 32; n _{LA} = 593) ^a		
WIC information system cannot track every aspect of program operations	65.7	64.8
WIC information system cannot produce desired reports	59.4	36.1
Agency wanted to collect information not collected as part of routine program operations	34.5	40.4
Staff do not trust breastfeeding estimates produced from the WIC information system	27.4	6.4
Other	15.5	14.6
Required	0.0	2.4
<i>Among Agencies with An Other Administrative Data System:</i>		
Participants Included in Other Administrative Data System (n _{SA} = 31; n _{LA} = 596)		
All WIC participants	26.1	32.9
Some WIC participants	73.9	67.1
Other Administrative Data Systems in Use (n _{SA} = 31; n _{LA} = 601) ^a		
State health department database	17.9	25.8
Peer counseling program database	33.0	61.3
Breast pump issuance database	41.5	62.2
Nutrition education database	10.7	14.7
Other	56.5	23.9
Non-specific data system	25.9	16.0
<i>Among Agencies with More than One Other Administrative Data System:</i>		
Other Administrative Data System Containing the Greatest Amount of Breastfeeding Information (n _{SA} = 11; n _{LA} = 295)		
State health department database	33.0	37.3
Peer counseling program database	27.6	39.8
Breast pump issuance database	0.0	9.1
Nutrition education database	10.3	7.3
Other	29.0	6.5

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 84; n_{LA} = 1,633). All tabulations are weighted to account for agency nonresponse.

Note: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations.

^a Multiple answers allowed.

Exhibit IV.2. Agencies' Separate Data Systems (Percentages)

	State Agencies	Local Agencies
Agency Stores Breastfeeding Information in a Separate Data System (Not Used for Service Provision) ($n_{SA} = 84$; $n_{LA} = 1,633$)	17.8	12.2
<i>Among Agencies Maintaining a Separate Data System:</i>		
Separate Data System Contains Agency-Administered Survey Data ($n_{SA} = 6$; $n_{LA} = 199$)	48.7	46.2
Other Sources of Data Stored in the Separate Data System ($n_{SA} = 3$; $n_{LA} = 99$)		
CDC's PNSS or PedNSS	0.0	13.1
Qualitative interviews with WIC participants	33.3	41.3
Focus groups with WIC participants	0.0	9.1
Other	66.7	52.6
Peer counseling reports or database	33.3	20.2
Target Populations Surveyed ($n_{SA} = 3$; $n_{LA} = 80$)		
Pregnant participants	100.0	78.7
Postpartum participants	100.0	82.4
Peer counseling program participants	64.9	60.0
Mothers of infant and child WIC participants	100.0	87.4
Portion of Target Population Surveyed ($n_{SA} = 3$; $n_{LA} = 80$)		
Entire target population	35.1	32.6
Sample from target population	64.9	67.4
Survey Data Can Be Linked to Participant Records in the WIC Information System ($n_{SA} = 3$; $n_{LA} = 82$)	0.0	13.4
Ways in Which Linked Survey Data Are Used ($n = 11$)		
Service delivery or program management	n.a.	54.4
Program evaluation	n.a.	91.1
Research	n.a.	9.2
Other	n.a.	9.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 36$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse.

Note: We defined a *separate data system* as one that is not used to administer the WIC program such as interview, focus group, or survey data collected from WIC participants. CDC no longer collects PedNSS and PNSS data, but some State and local agencies may have decided to continue some form of the data system.

CDC = Centers for Disease Control and Prevention; PNSS = Pregnancy Nutrition Surveillance System; PedNSS = Pediatric Nutrition Surveillance System; n.a. = not applicable.

B. Breastfeeding Data Linkages and Data Sharing

Only 12% of SAs and 9% of LAs reported linking breastfeeding data in their WIC information system with other data sources (Exhibit IV.3). Among those agencies that did, the data were most commonly linked to survey data (58%) and vital records data (58%) for SAs and to Medicaid data for LAs (38%). Agencies linking data also reported that the most common uses were service delivery or program management (49% of SAs and 65% of LAs that linked data) and program evaluation (62% of SAs and 62% of LAs that linked data).

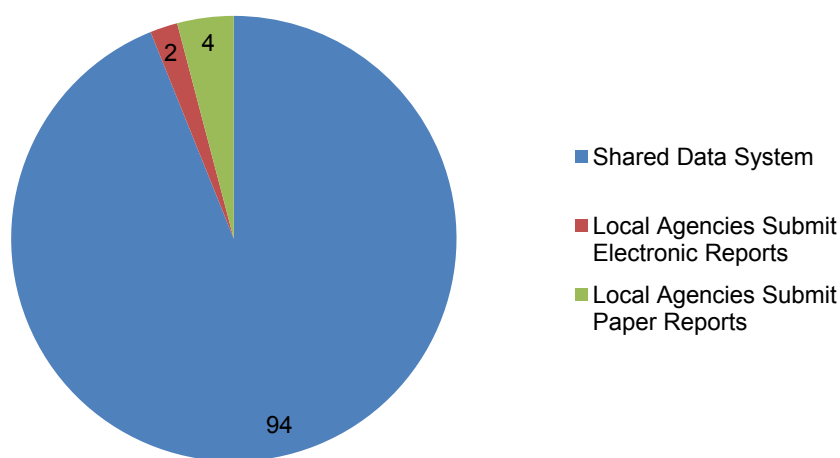
Exhibit IV.3. Agencies' Breastfeeding Data Linkages (Percentages)

	State Agencies	Local Agencies
Agency Links Breastfeeding Data in WIC Information System to Other Sources (n _{SA} = 84; n _{LA} = 1,625)	12.1	9.2
<i>Among Agencies Linking Breastfeeding Data to Other Sources:</i>		
<i>Data Sources Linked (n_{SA} = 10; n_{LA} = 135)</i>		
Survey data collected by another entity	58.4	33.2
Newborn genetic screening data	20.0	6.0
Vital records data	58.4	20.0
Medicaid data	18.4	37.6
Other	30.8	24.3
<i>Ways in Which Linked Data Are Used (n_{SA} = 10; n_{LA} = 135)</i>		
Service delivery or program management	49.2	64.9
Program evaluation	61.6	62.3
Research	18.4	18.4
Other	18.4	9.3

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 84; n_{LA} = 1,633). All tabulations are weighted to account for agency nonresponse.

Among State agencies that were not direct service providers, nearly all (94%) obtained breastfeeding information from local agencies by using a data system shared by SAs and LAs (Exhibit IV.4). In contrast, very few State agencies relied on paper or electronic report submissions from local agencies (4% and 2%, respectively).

Exhibit IV.4. How State Agencies Obtain Breastfeeding Information from Local Agencies



Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 48). All tabulations are weighted to account for agency nonresponse. Data tabulated in Appendix Exhibit C.3.

C. Breastfeeding Data Collection Practices

The WIC BPI asked agencies questions about how breastfeeding measures and other breastfeeding-related information were collected and stored. LAs and direct-service SAs reported

that the most common types of clinic staff that typically collect breastfeeding information from participants were Competent Professional Authorities (82% of SAs and 80% of LAs) and peer counselors (86% of SAs and 79% of LAs with a PC program; Exhibit IV.5). Nutritionists were the next most common type of staff (75% of SAs and 77% of LAs).

Exhibit IV.5. Agencies' Breastfeeding Data Collection Practices (Percentages)

	Direct-Service State Agencies	Local Agencies
Clinic Staff Who Typically Collect Breastfeeding Information from Participants (n _{SA} = 33; n _{LA} = 1,560) ^a		
Clerical or support staff	44.4	51.2
Competent Professional Authorities	81.9	80.2
Peer counselors ^b	86.3	82.1
WIC designated breastfeeding experts	65.9	56.2
Nutritionists	75.0	76.6
Where Staff Record Breastfeeding Information (n _{SA} = 34; n _{LA} = 1,556)		
Paper forms	6.0	8.4
Entered directly into the WIC information system	61.6	57.8
Both	32.4	33.8
How Local Agency Obtains Breastfeeding Information from Clinic Sites (n=34; n=1,513)		
Shared data system	82.0	72.4
Clinics submit electronic reports	6.0	14.4
Clinics submit paper reports	9.0	7.5
Other	3.0	5.8
All Breastfeeding-Related Data Fields Are Shown on the Same Screen in the WIC Information System (n _{SA} = 32; n _{LA} = 1,425)	81.7	63.7
Breastfeeding Data Quality Control Procedures (n _{SA} = 34; n _{LA} = 1,552) ^a		
WIC information system has required fields	91.0	93.1
Paper forms are marked to indicate required fields	7.8	31.2
Paper records are checked against the WIC information system as an audit	22.3	33.2
Compare local agency-generated estimates to State-generated estimates	3.0	17.8
Staff confirm queries run as intended	15.2	9.7
Other	9.0	7.0
Audits, chart reviews, or records reviews	0.0	3.1
Staff observations	0.0	0.6

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 35; n_{LA} = 1,633). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

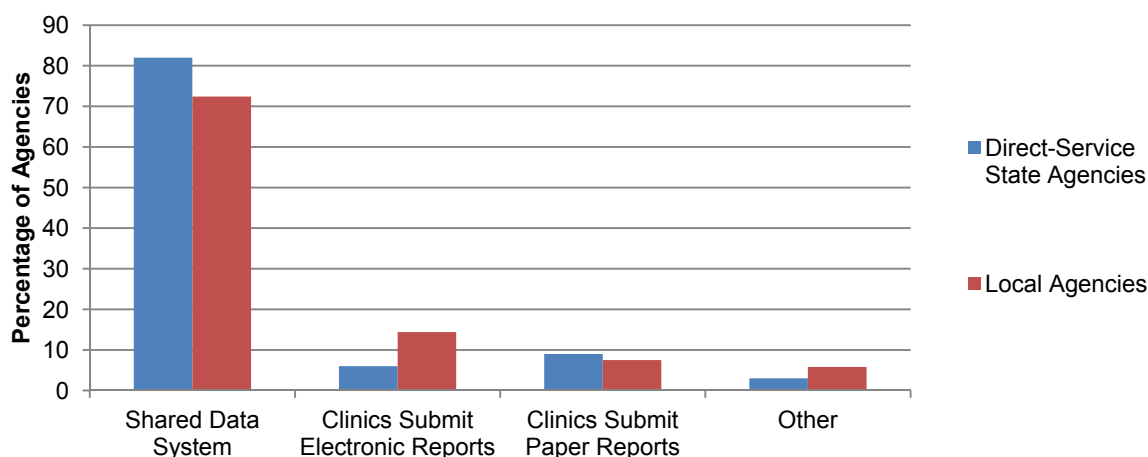
^b Among agencies that operate a peer counseling program.

Staff typically entered breastfeeding information directly into the WIC information system (62% of SAs and 58% of LAs), though close to one-third of agencies also used paper forms (Exhibit IV.5). Among those agencies that directly entered information into the WIC information system, the majority (82% of SAs and 64% of LAs that directly enter information) had all of the breastfeeding-related data fields, such as dates, drop-down boxes, or yes/no indicators, shown on the same screen in the WIC information system.

The WIC BPI asked all agencies what quality control procedures were in place to ensure accurate participant breastfeeding information is recorded in the WIC information system. Quality control was primarily dependent on the WIC information system having required fields, reported by 91% of SAs and 93% of LAs (Exhibit IV.5). More than one-fifth of SAs (22%) and one-third of LAs (33%) also checked paper records against the WIC information system as an audit.

LAs and direct-service SAs typically obtained breastfeeding information from clinic sites using a shared data system (72% and 82%, respectively), although 14% of LAs had clinic sites submit electronic reports (Exhibit IV.6).

Exhibit IV.6. How Agencies Obtain Breastfeeding Information from Clinic Sites



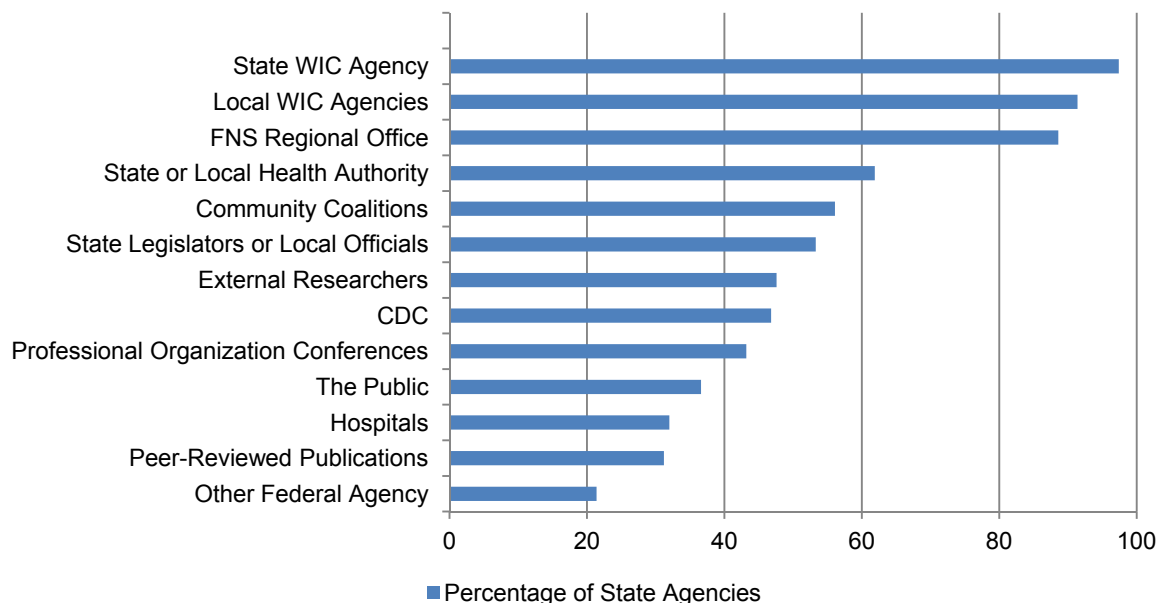
Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 34$; $n_{LA} = 1,513$). All tabulations are weighted to account for agency nonresponse. Data tabulated in Exhibit IV.5.

D. Breastfeeding Reporting Practices

The previous section discussed how agencies collected and stored information on WIC participants' breastfeeding. The WIC BPI also collected information on how agencies reported that information to other entities. Agencies were asked to whom they reported their agency's breastfeeding estimates in addition to their reporting requirements for the USDA.

For SAs, the most common audiences to whom they reported breastfeeding estimates were their own SA or another SA (97%), LAs (91%), and the FNS regional office (89%; Exhibit IV.7). Other common audiences noted were a State or local health authority, community coalitions, and the CDC. For LAs, the most common audiences to whom they reported breastfeeding estimates were their SA (88%), a State or local health authority (33%), and community coalitions (31%; Exhibit IV.8). Both types of agencies most commonly reported data in real-time or monthly, but this varied by audience (Exhibit IV.9).

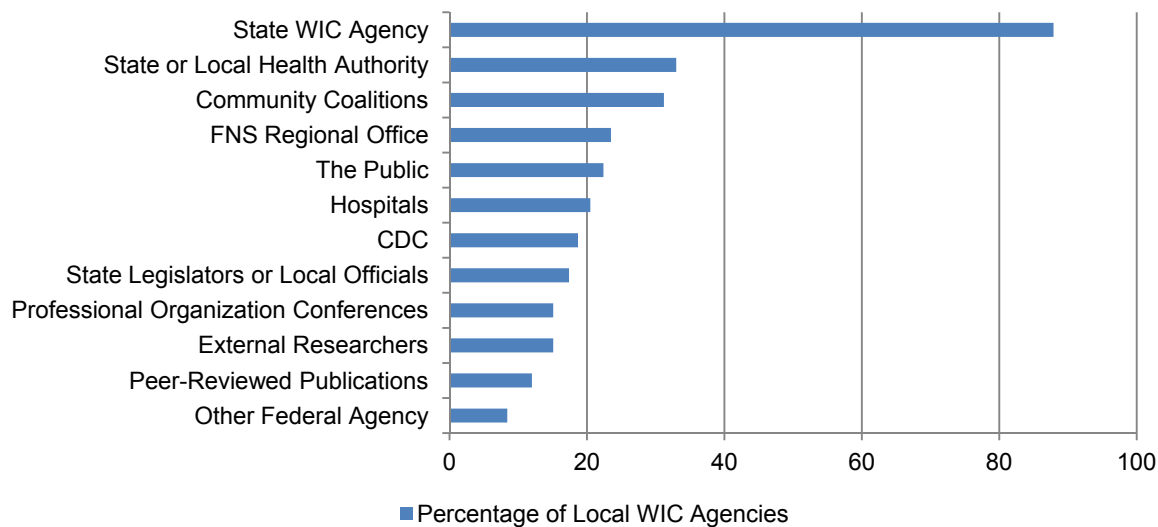
Exhibit IV.7. Audiences to Whom State Agencies Report Breastfeeding Information



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Exhibit IV.9.

FNS = Food and Nutrition Service. CDC=Centers for Disease Control and Prevention

Exhibit IV.8. Audiences to Whom Local WIC Agencies Report Breastfeeding Information



Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Exhibit IV.9.

FNS = Food and Nutrition Service. CDC=Centers for Disease Control and Prevention

Exhibit IV.9. Agencies' Breastfeeding Reporting Practices (Percentages)

Report Audience	Reported to This Audience	Frequency of Reporting Among Those Agencies Reporting to this Audience				
		Real-Time	Monthly	Quarterly	Once or Twice per Year	Less Than Once per Year
<i>State Agencies (n_{SA} = 78)</i>						
State WIC Agency	97.4	45.9	43.7	17.5	16.1	0
Local WIC Agencies	91.4	38.8	35.9	21.7	19.4	0
FNS Regional Office	88.6	30.4	23.8	3.9	35.5	4.1
State or Local Health Authority	61.9	39.6	2.6	5.2	14.6	8.0
Community Coalitions	56.1	29.5	0	8.8	12.4	6.7
State Legislators or Local Officials	53.3	38.4	0	0	6.7	12.2
External Researchers	47.6	36.5	0	1.4	1.4	12.6
CDC	46.8	28.0	0	5.9	16.0	1.4
Professional Organization Conferences	43.2	29.0	0	0	6.6	10.5
The Public	36.6	24.2	1.4	1.4	8.3	4.1
Hospitals	32	23.6	0	0	4.1	7.0
Peer-Reviewed Publications	31.2	24	0	0	0	8.6
Other Federal Agency	21.4	9.5	2.6	0	11.5	0
<i>Local Agencies (n_{LA} = 1,522)</i>						
State WIC Agency	87.9	46.5	26.7	19.4	8.3	1.4
State or Local Health Authority	33.0	17.3	5.9	4.7	6.3	3.1
Community Coalitions	31.2	14.9	2.4	3	7.8	5.5
FNS Regional Office	23.5	12.2	4.3	3.4	3.8	2.9
The Public	22.4	12.0	1.0	0.4	4.9	6.5
Hospitals	20.5	10.2	1.5	1.5	4.6	4.8
CDC	18.7	9.7	2.0	1.8	3.8	3.2
State Legislators or Local Officials	17.4	10.0	1.0	0.7	3.1	4.2
External Researchers	15.1	9.8	0.5	0.2	1.7	4.5
Professional Organization Conferences	15.1	8.6	0.4	0.7	1.8	4.9
Peer-Reviewed Publications	12.0	7.3	0.5	0.5	1.7	3.4
Other Federal Agency	8.4	4.4	0.7	0.3	0.7	2.7
Local Agency or Clinic Staff	0	0	0	0	0	0

Source: WIC Breastfeeding Policy Inventory Study (n_{SA}=84; n_{LA} =1,633). All tabulations are weighted to account for agency nonresponse.

FNS = Food and Nutrition Service; CDC = Centers for Disease Control and Prevention.

V. THE COLLECTION AND MEASUREMENT OF BREASTFEEDING OUTCOMES

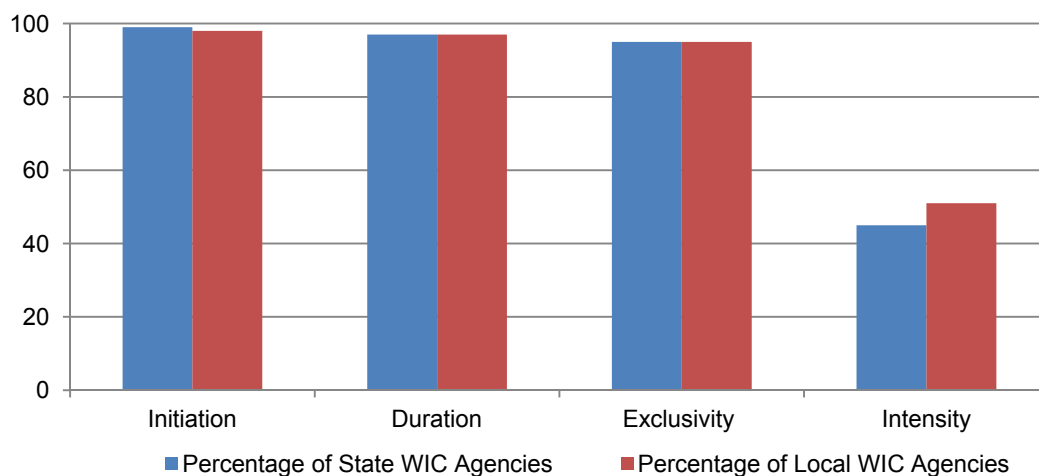
This chapter describes the capabilities of State and local WIC agencies to collect, store, and report breastfeeding outcomes in one or more data systems. As discussed in Chapter IV, all agencies use a management information system (MIS), a computerized data system for certifying clients, referred to as the WIC information system in the WIC BPI. SAs and LAs sometimes also have another administrative data system and/or a separate, non-administrative data system.¹⁵ This chapter explores the extent to which breastfeeding outcomes (initiation, duration, exclusivity, and intensity) were collected and stored in any or all of these data systems and the perceived difficulty with which agencies expected they could report these breastfeeding outcomes.

This chapter also includes the process-level information collected in the WIC BPI—that is, details about the specific questions that WIC clinic staff asked mothers in order to assess their infants' breastfeeding status and the methods of determination. The WIC BPI is the first study to take a close look at these processes and collect detailed information to better understand what is “behind” the breastfeeding measures reported in WIC. Breastfeeding initiation and duration by State agency have been reported in the biennial WIC PC Report since 1988, and program data on the numbers of infants receiving partially and fully breastfed food packages for each State and local agency since FY 2010; SAs and LAs may also collect breastfeeding data in addition to what is required by FNS, but there are variations in the collection methods used by SAs and LAs and it is important to document these variations to interpret differences across agencies and trends over time. In addition, less is known about whether and how agencies collect measures of breastfeeding exclusivity and intensity, so the WIC BPI provides a unique opportunity to learn more about the capabilities of SAs and LAs to assess these outcomes in the future.

A. Overview of WIC Agencies' Capabilities

Nearly all SAs and LAs (95% or more) collected information on each of three aggregate-level breastfeeding measures -- initiation, duration, and exclusivity (Exhibit V.1), reflecting a comparable percentage of WIC participants at local agencies (Appendix Exhibit D.1). However, 45% of SAs and 51% of LAs, representing nearly 47% of WIC participants served by local agencies, collected information on breastfeeding intensity as an outcome measure.

¹⁵ As described in Chapter IV, we defined a separate data system as one that is not used to administer the WIC program such as interview, focus group, or survey data collected from WIC participants.

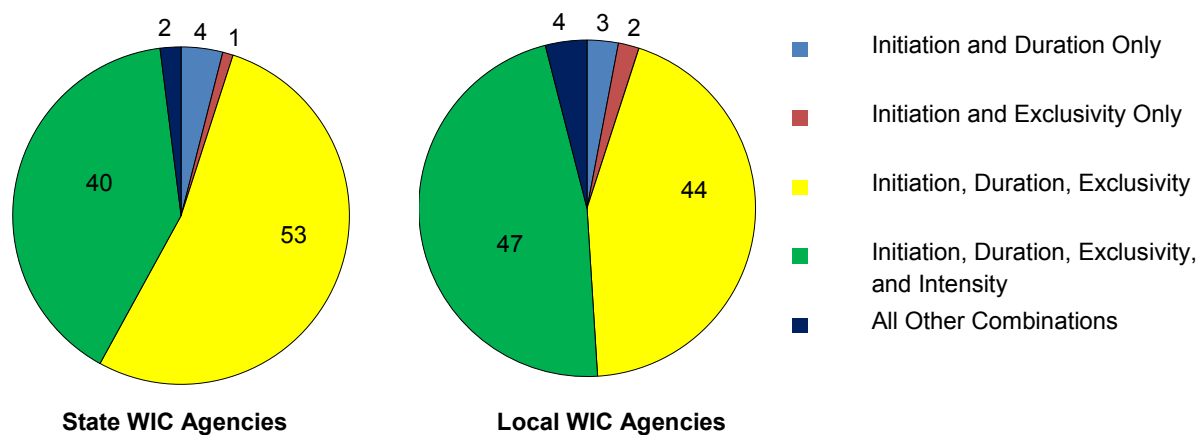
Exhibit V.1. Percentage of WIC Agencies Collecting Information on Breastfeeding Outcomes

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit D.1.

Exhibit V.2 shows the capabilities of WIC agencies to collect information on multiple breastfeeding outcomes and store it in the WIC information system.¹⁶ Forty percent of SAs and nearly half (47%) of LAs reported that they collected and stored data on all four breastfeeding measures in the WIC information system (Appendix Exhibit D.2). About 53% of SAs and 44% of LAs collected three breastfeeding measures: initiation, duration, and exclusivity. The remainder, less than 10% of agencies, reported other combinations of one, two, or three out of the four breastfeeding measures. The most common ‘other’ combinations were those that could do either “initiation and duration only” or “initiation and exclusivity only.” Finally, about 88% of WIC participants were represented in LAs that collected three or four of the breastfeeding measures of interest in *any* data system, and 85% in the WIC information system (Appendix Exhibit D.3).

¹⁶ Appendix Exhibit D.2 shows that the results are similar for data collected in *any* data system.

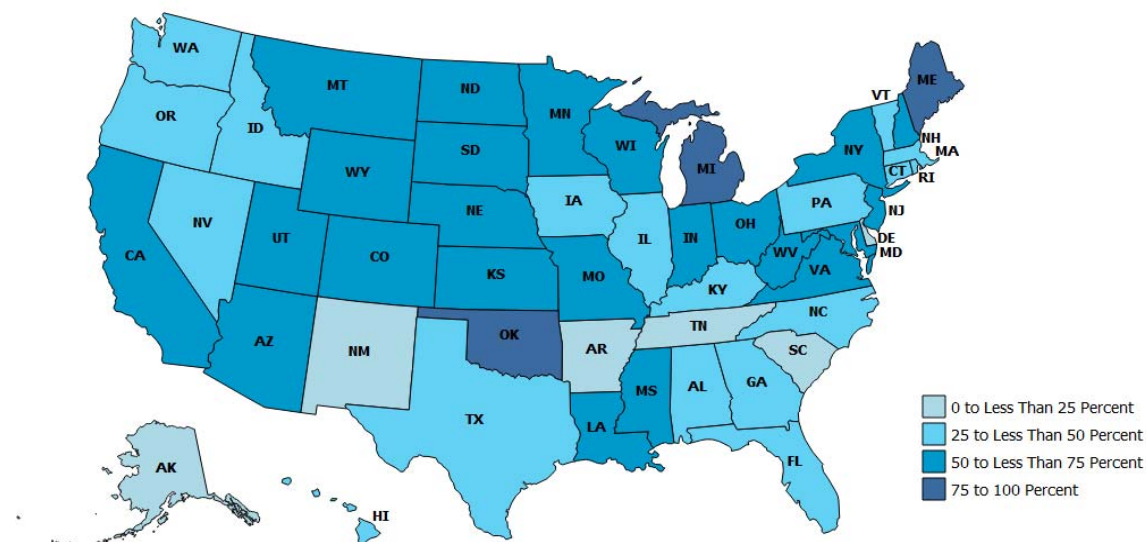
Exhibit V.2. Percentage of WIC Agencies Collecting Information on Breastfeeding Measures in the WIC Information System



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit D.2.

The maps in Exhibits V.3 and V.4 show the proportion of local agencies in each State that collected all four breastfeeding outcomes, or only three outcomes (the two most common combinations reported) (See Appendix Exhibits D.4 and D.5). In general, States in the Mountain Plains, Midwest, and Mid-Atlantic Regions generally had the highest proportion of local agencies collecting all four outcomes, although selected States in other FNS regions were also high (e.g. Oklahoma and Maine). Among local agencies that collected only three outcomes – initiation, duration, and exclusivity – higher proportions were reported in the Southeast and Western Regions, and selected States in other FNS regions (e.g. Arkansas and South Carolina). (See Appendix Exhibit D.6 for a map of LAs that collected only two measures [initiation and duration].)

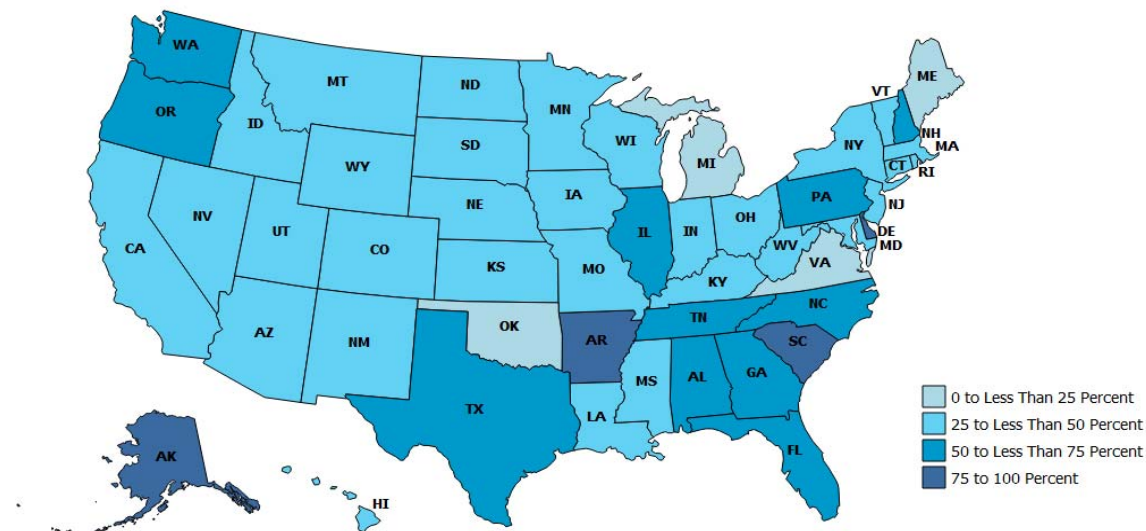
Exhibit V.3. Proportion of Local WIC Agencies that Collect Initiation, Duration, Exclusivity, and Intensity in the WIC Information System Among Agencies that Collect All Four Measures, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,610$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit D.4.

Note: Map displays *only* local agencies that reported collecting all four breastfeeding outcomes. Estimates for the two direct-service States are based on the State agency responses.

Exhibit V.4. Proportion of Local WIC Agencies that Collect Initiation, Duration, and Exclusivity in the WIC Information System Among Agencies that Collect These Three Measures But Not Intensity, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,610$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit D.5.

Note: Map displays *only* local agencies that collected three breastfeeding outcomes (initiation, duration, and exclusivity), but not intensity. Estimates for the two direct-service States are based on the State agency responses.

As described in Chapter IV, WIC agencies were much less likely to have separate, non-administrative data systems that stored breastfeeding information. If an agency collected a particular breastfeeding outcome, the outcome was more likely stored in the WIC information system than in another administrative data system used for some aspect of WIC operations or in a separate, non-administrative data system (Exhibit V.5). For example, whereas 99% of LAs that collect exclusivity store the data in the WIC information system, only 38% store the data in another administrative system. Appendix Exhibit D.8 indicates the percentage of WIC participants served by local agencies that stored a particular breastfeeding outcome. The percentages are generally similar to the agency-level percentages in Exhibit V.5.

Exhibit V.5. Data Systems Used to Store Breastfeeding Outcome Information, Among Agencies that Collect Breastfeeding Outcomes (Percentages)

	State Agencies that Collect Outcome	Local Agencies that Collect Outcome
Initiation		
WIC information system ($n_{SA} = 83$; $n_{LA} = 1,592$)	100.0	99.3
Other administrative system ($n_{SA} = 30$; $n_{LA} = 594$)	46.9	43.5
Separate, non-administrative data system ($n_{SA} = 8$; $n_{LA} = 88$)	37.2	32.9
Duration		
WIC information system ($n_{SA} = 82$; $n_{LA} = 1,580$)	100.0	99.1
Other administrative system ($n_{SA} = 29$; $n_{LA} = 590$)	41.7	41.1
Separate, non-administrative data system ($n_{SA} = 8$; $n_{LA} = 88$)	23.5	26.2
Exclusivity		
WIC information system ($n_{SA} = 80$; $n_{LA} = 1,551$)	100.0	99.0
Other administrative system ($n_{SA} = 30$; $n_{LA} = 574$)	43.3	37.6
Separate, non-administrative data system ($n_{SA} = 8$; $n_{LA} = 79$)	23.5	18.9
Intensity		
WIC information system ($n_{SA} = 36$; $n_{LA} = 829$)	94.1	93.8
Other administrative system ($n_{SA} = 13$; $n_{LA} = 350$)	45.0	38.5
Separate, non-administrative data system ($n_{SA} = 2$; $n_{LA} = 51$)	50.0	25.3

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse.

Note: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations. We defined a separate, non-administrative data system as one that is not used to administer the WIC program such as interview, focus group, or survey data collected from WIC participants. Multiple answers allowed.

Most State and local agencies could provide estimates of initiation, duration, and exclusivity from one or more data systems, if they had them, but were least likely to be able to estimate intensity (Exhibit V.6). The ability to provide breastfeeding estimates was generally highest for agencies using their WIC information system rather than another administrative system or a separate, non-administrative data system. However, among LAs that have a separate, non-administrative data system, the capability of estimating the least common measure (intensity) from that system was higher (69%) than from the WIC information system (55%) or from another administrative data system (57%). Among local agencies using a separate data system, nearly two to three times the proportion of participants were represented in the separate data system compared to the WIC information system and the other administrative data system (81% versus 44% and 32%, respectively) as shown in Appendix Exhibit D.9. This suggests that local agencies may have

developed a separate, non-administrative data system in order to collect and store information on intensity. However, we must consider that the estimates included in the separate data system may cover a relatively small proportion of total breastfeeding WIC participants.

Exhibit V.6. Capabilities of Agencies Collecting Information on Breastfeeding Outcomes to Provide Aggregate Estimates of Breastfeeding Outcomes, and Data System Used (Percentages)

	Initiation	Duration	Exclusivity	Intensity
<i>State Agencies</i>				
Can Provide Estimate from Data System				
WIC information system ($n_{SA} = 83$; $n_{SA} = 82$; $n_{SA} = 80$; $n_{SA} = 34$)	96.2	93.0	93.8	62.3
Other administrative system ($n_{SA} = 14$; $n_{SA} = 12$; $n_{SA} = 13$; $n_{SA} = 6$)	79.1	84.7	77.4	67.5
Separate data system ($n_{SA} = 3$; $n_{SA} = 2$; $n_{SA} = 2$; $n_{SA} = 0$)	68.5	50.0	50.0	—
<i>Local Agencies</i>				
Can Provide Estimate from Data System				
WIC information system ($n_{LA} = 1,577$; $n_{LA} = 1,562$; $n_{LA} = 1,533$; $n_{LA} = 776$)	95.7	94.5	91.1	54.6
Other administrative system ($n_{LA} = 259$; $n_{LA} = 243$; $n_{LA} = 216$; $n_{LA} = 135$)	86.5	85.1	85.2	57.2
Separate data system ($n_{LA} = 29$; $n_{LA} = 23$; $n_{LA} = 15$; $n_{LA} = 13$)	82.7	77.6	79.7	69.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$; $n_{LA} = 1,594$). All tabulations are weighted to account for agency nonresponse.

— indicates that no agencies met this criterion.

The WIC BPI asked agencies to rate how difficult it would be for them to report a recent agency-level estimate of a breastfeeding outcome. WIC agencies could most easily provide breastfeeding estimates for initiation and duration (i.e., breastfeeding for at least 6 months); both SAs and LAs had a median score of 5 out of a range from 1 to 6, with 1 being impossible and 6 being extremely easy (Exhibit V.7). Intensity estimates for infants at age three months were the most difficult (a median of 1, meaning impossible, for SAs and a median of 2 for LAs; Exhibits V.7 and V.8). Based on average difficulty ratings, it was easier for LAs to provide recent estimates of exclusivity and intensity (for infants at age three months) than it was for SAs to do so (Exhibits V.7 and V.8).¹⁷ Average difficulty ratings for making estimates of infants at ages three and six months receiving specific types of food packages were intermediate to the ease or difficulty of making estimates for other breastfeeding (Exhibit V.8). Appendix Exhibit D.10 presents the distribution of, and average, difficulty ratings weighted to reflect WIC participants.

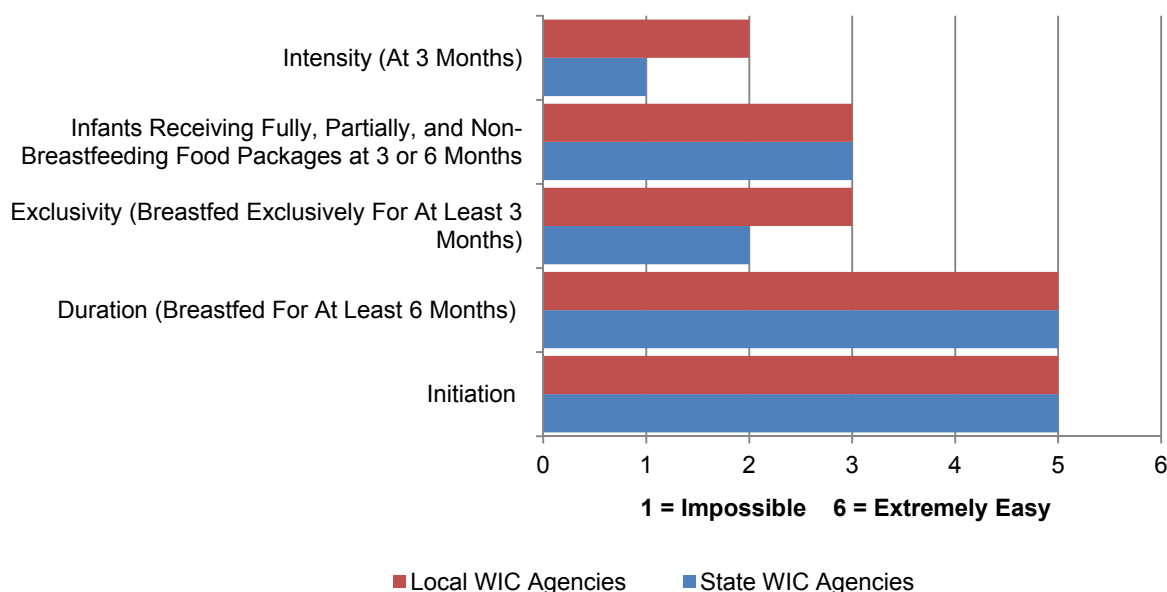
¹⁷ SAs reported a mean difficulty of 2.4 for exclusivity and 1.8 for intensity compared to means of 2.8 and 2.2 for LAs, respectively (Exhibit V.7).

Exhibit V.7. Difficulty Ratings for Agencies to Provide Recent Breastfeeding Estimates (1 is “Impossible” and 6 is “Extremely Easy”)

	Distribution of Scores (%)						Mean	Median
	1	2	3	4	5	6		
<i>State Agencies</i>								
Percentage of Infants Who Initiated Breastfeeding ($n_{SA} = 82$)	21.2	4.0	10.0	5.9	17.3	41.6	4.2	5
Percentage of Infants Who Were Breastfed for at Least Six Months ($n_{SA} = 78$)	14.7	7.4	16.5	7.8	23.5	30.2	4.1	5
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Six Months ($n_{SA} = 82$)	30.4	9.3	13.5	13.4	20.5	12.8	3.2	3
Percentage of Infants Who Were Exclusively Breastfed for at Least Three Months ($n_{SA} = 83$)	39.8	11.9	13.2	9.6	11.3	14.1	2.8	2
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Three Months ($n_{SA} = 82$)	32.7	15.8	14.9	12.2	14.1	10.3	2.9	3
Average Length of Time Infants Were Breastfed ($n_{SA} = 78$)	24.5	15.3	21.6	13.0	14.3	11.4	3.1	3
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Two Weeks ($n_{SA} = 82$)	36.6	15.7	16.1	10.9	11.7	9.0	2.7	2
Average Length of Time Infants Were Exclusively Breastfed ($n_{SA} = 83$)	41.9	22.6	11.4	11.8	6.4	5.8	2.4	2
Percentage of Total Feedings that Are Breast Milk Feedings for Infants Age Three Months (Intensity) ($n_{SA} = 77$)	62.8	13.7	11.1	4.1	6.9	1.4	1.8	1
<i>Local Agencies</i>								
Percentage of Infants Who Initiated Breastfeeding ($n_{LA} = 1,591$)	18.6	5.2	8.3	8.7	19.8	39.4	4.2	5
Percentage of Infants Who Were Breastfed for at Least Six Months ($n_{LA} = 1,463$)	17.0	7.5	10.9	12.6	22.5	29.6	4.0	5
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Six Months ($n_{LA} = 1,592$)	26.6	12.5	10.9	11.5	19.3	19.1	3.4	3
Percentage of Infants Who Were Exclusively Breastfed for at Least Three Months ($n_{LA} = 1,592$)	30.8	12.6	12.2	13.2	13.9	17.4	3.2	3
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Three Months ($n_{LA} = 1,586$)	28.1	15.6	12.8	11.5	17.6	14.5	3.2	3
Average Length of Time Infants Were Breastfed ($n_{LA} = 1,458$)	24.7	20.2	18.2	13.1	13.8	10.1	3.0	3
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Two Weeks ($n_{LA} = 1,590$)	32.7	18.6	13.3	11.5	13.9	9.9	2.9	2
Average Length of Time Infants Were Exclusively Breastfed ($n_{LA} = 1,588$)	34.8	17.6	15.2	11.5	11.2	9.8	2.8	2
Percentage of Total Feedings that Are Breast Milk Feedings for Infants Age Three Months (Intensity) ($n_{LA} = 1,539$)	48.8	19.6	11.9	7.9	6.0	5.8	2.2	2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse.

Note: Percentages account for all agencies, not just a subset. Percentages might not add to 100 because of rounding.

Exhibit V.8. Median Difficulty Ratings for Agencies to Provide a Recent Breastfeeding Estimate

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Exhibit V.7.

B. Breastfeeding Outcomes Measurement

Information on breastfeeding initiation rates and duration of breastfeeding have been collected and reported at the aggregate level in the WIC PC Study since 1988 and used to monitor breastfeeding rates over time among WIC participants. With the implementation of revised WIC food packages that increased support for exclusive breastfeeding, and annual reporting of performance measures based on the numbers of infants who are fully and partially breastfed, it is important to understand: 1) how WIC agencies currently collect and assess breastfeeding outcomes with individual WIC participants, and 2) how this information is aggregated at the local agency and State agency level. For each of the four breastfeeding outcomes addressed in the WIC BPI Study, we asked a series of questions about:

- Encounters with WIC participants in which WIC staff assessed each breastfeeding outcome
- The specific wording of questions that WIC staff asked WIC participants in order to assess breastfeeding
- Whether the breastfeeding information gets recorded or stored in a data system, and if so, how (for example, using what data fields, which staff record the information)
- Recent estimates of each breastfeeding outcome, if an agency could provide one

The responses to these questions provided information about how agencies determined and defined each breastfeeding outcome. This information dictated which follow-up questions were asked (i.e., we needed to know what estimates agencies could report and in what ways so that we could ask follow-up questions in a consistent manner across all agencies for that outcome). Below we first describe the encounters with WIC participants in which WIC staff assess breastfeeding outcomes. Subsequent sections provide additional details for each of the four outcomes.

Postpartum certification appointments were the most prevalent encounters in which local agency WIC staff assessed any of the four breastfeeding measures; peer counseling visits were the second most common for any measure (Exhibit V.9). Among direct-service SAs, postpartum certification appointments were also the most common occasion for assessing initiation and duration, but peer counseling visits were the most common occasion to assess exclusivity and intensity (Exhibit V.10). Appendix Exhibit D.11 provides participant-level statistics for LAs that assess the breastfeeding measure of interest.

Exhibit V.9. Encounters in Which WIC Staff Assess Each Breastfeeding Outcome, Among Local WIC Agencies that Collect It

	Initiation (n _{LA} = 1,588)	Duration (n _{LA} = 1,578)	Exclusivity (n _{LA} = 1,545)	Intensity (n _{LA} = 812)
Percentage of Agencies that Assess Outcome ^a				
Before the first postpartum WIC clinic visit	58.3	37.5	49.0	40.6
Postpartum certification appointment	92.5	90.5	96.9	96.0
Later recertification visits	39.3	70.9	68.8	65.0
Other WIC clinic visits	41.4	73.6	73.4	68.4
Peer counseling visits or calls ^b	75.1	81.3	81.6	81.1
Other	6.3	5.9	5.9	5.5

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,633). Fewer agencies collected intensity than other outcomes and therefore fewer respondents were asked about encounters assessing intensity. All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

^b Among agencies that operate a peer counseling program.

Exhibit V.10. Encounters in Which WIC Staff Assess Each Breastfeeding Outcome, Among Direct-Service State WIC Agencies that Collect It

	Initiation (n _{SA} = 33)	Duration (n _{SA} = 33)	Exclusivity (n _{SA} = 34)	Intensity (n _{SA} = 19)
Percentage of Agencies that Assess Outcome ^a				
Before the first postpartum WIC clinic visit	55.1	36.3	50.7	58.5
Postpartum certification appointment	87.4	90.5	85.2	83.8
Later recertification visits	29.6	53.5	56.0	67.9
Other WIC clinic visits	30.3	63.0	58.6	73.2
Peer counseling visits or calls ^b	69.5	75.6	86.6	88.2

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 36). Fewer agencies collected intensity than other outcomes and therefore fewer respondents were asked about encounters assessing intensity. All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

^b Among agencies that operate a peer counseling program.

1. Breastfeeding Initiation

The public health definition for initiation is typically based on asking mothers if they *ever* breastfed their infant and whether they are *currently* breastfeeding. In some cases, however, WIC agencies may rely on the percentage of fully or partially breastfeeding food packages to determine breastfeeding initiation and the length of breastfeeding (duration). Nearly all agencies (98% of SAs

and 99% of LAs) stored breastfeeding information on whether the mother ever breastfed her child *and* whether she was currently breastfeeding (Exhibit V.11); these agencies represented 96% of participants nationally (Appendix Exhibit D.12). Among agencies that asked both questions, the majority of agencies asked about “current breastfeeding” first (Exhibit V.11). The most common question asked by LAs was “Are you currently breastfeeding?” (71%), followed by “Are you still breastfeeding or feeding expressed milk to your baby?” (16%), and a simpler question “Are you now breastfeeding your baby?” (9%). For direct-service SAs, the corresponding percentages were 88%, 0%, and 9%, respectively (Exhibit V.11). There was greater variability in how agencies ask about “ever breastfeeding.” The most common question was “Did your baby ever receive breast milk?” (36% of LAs, serving 32% of participants; Exhibit V.11; Appendix Exhibit D.12).

Exhibit V.11. Breastfeeding Initiation Measurement (Percentages)

	State Agencies	Local Agencies
Agencies’ Storage of Information on Whether Mothers Ever Breastfed or Are Currently Breastfeeding ($n_{SA} = 83$; $n_{LA} = 1,582$)		
Only whether a mother ever breastfed her child	2.4	0.1
Only whether a mother is currently breastfeeding her child	0.0	0.9
Both whether a mother ever breastfed her child and whether she is currently breastfeeding	97.6	99.0
Among Agencies That Ask Both, Ordering of “Ever Breastfed” and “Currently Breastfeeding” Questions ($n_{SA} = 80$; $n_{LA} = 1,563$)		
Ask “ever breastfed” first	38.8	29.6
Ask “currently breastfeeding” first	61.2	70.4
Question Wording for “Ever Breastfed” ($n_{SA} = 34$; $n_{LA} = 1,563$) ^a		
Did your baby ever receive breast milk?	28.9	35.5
Did you breastfeed or feed breast milk to your baby at least once?	14.6	13.9
Did you ever breastfeed or express breast milk to feed your baby after delivery?	23.2	24.4
Did you ever breastfeed or express breast milk to feed your new baby after delivery, even for a short period of time?	18.2	16.7
Did you make any attempt to breastfeed, whether it was successful or not?	15.0	9.5
Question Wording for “Currently Breastfeeding” ($n_{SA} = 33$; $n_{LA} = 1,573$) ^a		
Are you now breastfeeding your baby?	9.3	8.6
Are you currently breastfeeding?	87.6	71.1
What type of milk did your baby consume the most in the past week?	3.1	3.7
Have you stopped breastfeeding altogether?	0.0	0.3
Are you still breastfeeding or feeding expressed milk to your baby?	0.0	16.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse.

^a Among State agencies that provide direct services to participants.

About two-thirds of agencies (63% of SAs and 68% of LAs) determined breastfeeding initiation data in the WIC information system based on *both* whether mothers initiated breastfeeding and whether infants received fully or partially breastfeeding food packages (Exhibit V.12; see Appendix Exhibit D.13 for participant-level information). About one-fourth based initiation on *only* whether mothers initiated breastfeeding and the remainder on *only* whether infants were issued a fully or partially breastfeeding food package (9% of LAs, representing 14% of participants; Exhibit V.12; Appendix Exhibit D.13). Regardless of the method used to determine initiation, nearly all State and

local WIC agencies (96% for both SAs and LAs) stored breastfeeding initiation data on whether a mother ever breastfed *and* whether she was currently breastfeeding in their WIC information system (Appendix Exhibits D.14 and D.15).

Exhibit V.12. How Agencies Determine Breastfeeding Initiation (Percentages)

	State Agencies	Local Agencies
Based on the WIC Information System ($n_{SA} = 82$; $n_{LA} = 1,568$)		
Only whether mothers report initiating breastfeeding	24.9	22.4
Only whether infants receive fully or partially breastfeeding food packages	12.5	9.3
Both whether mothers report initiating breastfeeding and whether infants receive fully or partially breastfeeding food packages	62.6	68.3
Based on the Other Administrative Data System ($n_{SA} = 11$; $n_{LA} = 180$)		
Only whether mothers initiated breastfeeding	27.8	60.6
Only whether infants receive fully or partially breastfeeding food packages	18.1	2.2
Both whether mothers initiated breastfeeding and whether infants receive fully or partially breastfeeding food packages	54.2	37.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 83$; $n_{LA} = 1,591$). All tabulations are weighted to account for agency nonresponse.

2. Breastfeeding Duration

The exact questions asked by WIC clinic staff about breastfeeding duration varied. The most common method was a two-part question—a mother is first asked if she is still breastfeeding. If she said “no,” 41% of local agencies providing services to 49% of WIC participants then asked the date she stopped breastfeeding; 33% then asked how long she gave breast milk to her baby (Exhibit V.13; Appendix Exhibit D.16). Smaller percentages of local agencies asked alternative questions such as “How many weeks or months did you breastfeed or pump breast milk to feed your baby?” (10% of LAs providing services to 12% of WIC participants).

Exhibit V.13. Questions that Clinic Staff Ask Mothers about Breastfeeding Duration (Percentages)

	Direct-Service State Agencies ($n_{SA} = 33$)	Local Agencies ($n_{LA} = 1,568$)
How Long Did Your Baby at Least Partially Breastfeed?	0.0	1.4
How Old was Your Baby the First Time You Fed Him or Her Anything Other than Breast Milk?	6.4	15.0
How Many Weeks or Months Did You Breastfeed or Pump Milk to Feed Your Baby?	6.2	9.7
Mother is Asked Whether She is Still Breastfeeding. If She Responds “No,” She is Asked the Date She Stopped.	58.2	40.9
Mother is Asked Whether She is Still Breastfeeding. If She Responds “No,” She is Asked How Long She Gave Breast Milk to Her Baby.	29.2	32.9

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 34$; $n_{LA} = 1,578$). All tabulations are weighted to account for agency nonresponse.

WIC agencies used multiple ways of determining breastfeeding duration. In the WIC information system, the most common methods were calculating the difference between the dates when breastfeeding started and ended (73% of SAs and 61% of LAs) and using the length of time

reported by the mother (64% of SAs and 75% of LAs; Exhibit V.14). But nearly half of participants were served by local agencies that *also* used the length of time an infant received a fully or partially breastfeeding food package (Appendix Exhibit D.17). Again, multiple methods may be used, including other less common ones such as using progress notes in medical records, dates in health information records, and peer counselor contacts.

Exhibit V.14. How Agencies Determine Breastfeeding Duration (Percentages)

	State Agencies	Local Agencies
Based on the WIC Information System ($n_{SA} = 82$; $n_{LA} = 1,554$) ^a		
Difference between dates ^b when breastfeeding started and ended	73.1	61.1
Length of time as reported by the mother	63.7	74.8
Length of time an infant receives a fully or partially breastfeeding food package	47.7	45.3
Other ^c	0.0	0.8
Based on the Other Administrative Data System ($n_{SA} = 9$; $n_{LA} = 163$) ^a		
Difference between dates ^b when breastfeeding started and ended	78.0	58.2
Length of time as reported by the mother	88.1	85.9
Length of time an infant receives a fully or partially breastfeeding food package	66.1	28.8
Other ^c	0.0	3.1

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 82$; $n_{LA} = 1,578$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

^b Clinic staff were asked to report the question wording closest to what they asked mothers to determine duration (see Exhibit V.13). Depending on the data system used and the exact question wording asked by clinic staff, the difference in dates may reflect the ending date reported by the mother *or* the date that the mother reported she was no longer breastfeeding (meaning the date the information was recorded).

^c Examples of other methods include the use of health information tab dates, progress notes in the medical record, and peer counselor contact.

Breastfeeding cessation dates were most often based on the end date reported by the mother in both the WIC information system (93% of SAs and 96% of LAs) and in the other administrative data system (if it was used, 100% of SAs and 67% of LAs), but some agencies also used the date of the contact in which the mother reports no longer breastfeeding (Appendix Exhibit D.18; see Appendix Exhibit D.19 for participant-level findings).

3. Breastfeeding Exclusivity

Agencies responded to a series of questions about what information they could provide on breastfeeding exclusivity. The two most frequent questions that agencies asked about exclusivity were these: “How are you feeding your baby?” (25% of LAs and 45% of direct-service SAs) and “Did you feed your baby anything other than breast milk?” (26% of LAs and 19% of direct-service SAs; Exhibit V.15; see Appendix Exhibit D.20 for participant-level information). However, there are at least eight other specific questions that agencies asked to determine exclusivity, indicating some variability in the measure that could influence the agency-level outcome estimates.

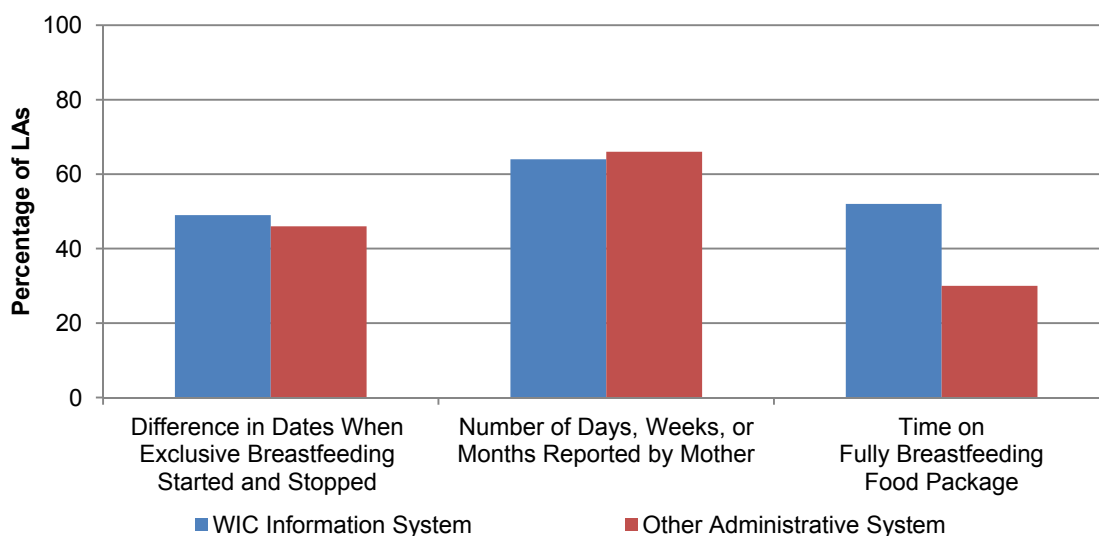
Exhibit V.15. Questions that Clinic Staff Ask Mothers About Breastfeeding Exclusivity (as Reported by Agencies) (Percentages)

	Direct-Service State Agencies (n _{SA} = 32)	Local Agencies (n _{LA} = 1,539)
What Did You Feed Your Baby In The Past 24 Hours? If Formula Was Introduced, How Much?	0.0	1.2
How Are You Feeding Your Baby?	44.5	25.0
How Long Did You Give (Just or Only) Breast Milk to Your Baby?	9.1	8.6
Do You Only Give Your Baby Breast Milk and Vitamin Supplements?	3.2	1.5
Is Your Baby Receiving Any Solids, Water, or Other Liquids Besides Breast Milk?	15.0	15.0
Did You Feed Your Baby Anything Other Than Breast Milk?	18.6	25.7
How Old Was Your Baby the First Time He or She Drank Liquids Other Than Breast Milk (Such as Formula, Water, Juice, Tea, or Cow's Milk)?	0.0	6.4
How Old Was Your Baby When He/She Was First Fed Formula?	6.4	5.6
How Old Was Your Baby When He/She Was First Fed Anything Other Than Breast Milk or Formula?	0.0	9.1
Other	3.2	1.9

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 35; n_{LA} = 1,550). All tabulations are weighted to account for agency nonresponse.

Agencies also used multiple ways of determining the length of breastfeeding exclusivity; among LAs, the most frequent method was the number of days, weeks, or months as reported by the mother in the WIC information system; two-thirds of participants had exclusivity estimated in this manner (Exhibit V.16 [tabulated in Appendix Exhibit D.21]; Appendix Exhibit D.22 presents participant-level findings). About half of LAs and at least half of SAs could determine the length of exclusivity by the difference in dates¹⁸ between when exclusive breastfeeding started and stopped and the length of time an infant received a fully breastfeeding food package.

¹⁸The difference in dates may reflect the ending date reported by the mother or the date that the mother reported she was no longer breastfeeding (meaning the data the information was recorded).

Exhibit V.16. How Local WIC Agencies Determine the Length of Breastfeeding Exclusivity

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,550$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit D.21.

Note: Multiple responses allowed.

Agencies were asked if they could provide one of four types of exclusivity estimates:

1. Percentage of infants exclusively breastfed for at least three months
2. Average length of exclusive breastfeeding
3. Percentage of infants receiving a food package at three months
4. Percentage of infants receiving a food package at something other than three months

The above represents the order of priority in the WIC BPI for obtaining estimates of exclusivity at three months of age. Most agencies that determined exclusivity could report it based on infants' receiving the fully breastfeeding package (87% of SAs and 78% of LAs, among agencies using the WIC information system; Exhibit V.17; see Appendix D.23 for participant-level information). About 43% of SAs and 52% of LAs could report exclusivity based on infants receiving no solids, water, or other liquids aside from breast milk, and less than 10% of agencies could determine exclusivity based on mothers receiving a fully breastfeeding food package.¹⁹

For the small number of agencies that determined exclusivity in another administrative data system, about 70% of the LAs based the outcome on infants receiving no solids, water, or other liquids, whereas SAs most commonly based the outcome on infants receiving the fully breastfeeding food package (84%, among SAs using another administrative system). Among State and local

¹⁹ Among mother-infant dyads, in the birth month the mother may be receiving a fully breastfeeding package or the infant may be certified to receive a fully breastfeeding food package. Therefore the WIC BPI allowed agencies to differentiate between whether they determine exclusivity based on the infants or mothers receiving a fully breastfeeding food package.

agencies that could report breastfeeding exclusivity rates, the majority of those agencies could report an estimate for 2013 (Appendix Exhibit D.24).

Exhibit V.17. How Agencies Determine Breastfeeding Exclusivity (Percentages)

	State Agencies	Local Agencies
Based on the WIC Information System ($n_{SA} = 79$; $n_{LA} = 1,524$) ^a		
Infant receives no solids, water, or other liquids aside from breast milk	42.5	51.9
Infant receives fully breastfeeding food package	86.6	77.9
Other	6.5	1.8
Mother receives fully breastfeeding food package	1.4	0.5
Based on the Other Administrative Data System ($n_{SA} = 7$; $n_{LA} = 139$) ^a		
Infant receives no solids, water, or other liquids aside from breast milk	71.1	69.7
Infant receives fully breastfeeding food package	84.4	50.4
Other	0.0	2.9
Mother receives fully breastfeeding food package	0.0	0.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 80$; $n_{LA} = 1,550$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Among agencies that could provide an estimate of exclusivity, agencies were most likely to be able to provide an estimate of exclusive breastfeeding for lengths of exclusive breastfeeding of at least six months (95% of SAs and 87% of LAs), at least three months (88% of SAs and 74% of LAs), or at least one month (77% of SAs and 68% of LAs), representing 90%, 69%, and 67% of participants, respectively (Appendix Exhibits D.25 and D.26). The patterns were similar for the WIC information system and another administrative system (Appendix Exhibit D.27). For agencies that could provide an exclusivity estimate based on food-package estimates, they were asked to report it based on the length of time an infant receives a fully breastfeeding food package. About one-third of such agencies could report for infants at ages one, two, and three months, but almost half (47%) could not report a specific age at all (Appendix Exhibit D.28).

In order to standardize the exclusivity estimate across all agencies, the WIC BPI asked agencies that could to report the exclusivity rate for infants breastfed at least three months (so infants would therefore need to be at least three months of age to be included in the estimate). Exclusivity rates at three months varied widely—from 0% to 100% across local agencies (Appendix Exhibits D.29 and D.30).

Among agencies that could provide a rate of exclusivity for at least three months using the WIC information system, the mean was 22% for SAs and 23% for LAs; the median was considerably lower (13% for SAs and 17% for LAs; Exhibit V.18).²⁰

²⁰ The Healthy People 2020 objective for exclusive breastfeeding at three months is 46.2% and at six months is 25.5% (DHHS 2013). National 2010 provisional data from the National Immunization Survey show these percentages are 38% and 16% at three and six months, respectively (CDC 2013a).

Exhibit V.18. Capability of Agencies to Provide Estimate of the Length of Time an Infant is Exclusively Breastfed for at Least Three Months

	State Agencies	Local Agencies
<i>Infants Exclusively Breastfed for at Least Three Months (Percentage)</i>		
WIC Information System (n _{SA} = 29; n _{LA} = 468)		
Mean	22.0	22.9
Median	13.0	17.0
Interquartile range	9–25	8–31
Range	0–75	0–100
Other Administrative System (n _{SA} = 0; n _{LA} = 15)		
Mean	—	22.5
Median	—	23.0
Interquartile range	—	20–29
Range	—	7–36
<i>Total Number Infants Included in the Estimate</i>		
WIC Information System (n _{SA} = 29; n _{LA} = 439)		
Mean	12,763	580
Median	727	106
Interquartile range	34–25,776	30–362
Range	9–106,018	1–50,050
Other Administrative System (n _{SA} = 0; n _{LA} = 13)		
Mean	—	635
Median	—	106
Interquartile range	—	32–496
Range	—	15–5,907
<i>Population Represented in the Estimate (Percentage)</i>		
WIC Information System (n _{SA} = 31; n _{LA} = 474)		
Infants born in a given time period that exclusively breastfed for at least three months	50.1	47.0
Mother or infants initially certified in a given time period that exclusively breastfed for at least three months	14.1	29.0
Infants born to mothers who were enrolled in WIC during pregnancy that exclusively breastfed	23.7	19.6
Other Administrative System (n _{SA} = 0; n _{LA} = 14)		
Infants born in a given time period that exclusively breastfed for at least three months	0.0	21.3
Mother or infants initially certified in a given time period that exclusively breastfed for at least three months	—	43.5
Infants born to mothers who were enrolled in WIC during pregnancy that exclusively breastfed	—	28.3
<i>Estimate Includes Only Infants Older than Three Months Who Are No Longer Exclusively Breastfeeding (percentage of agencies)</i>		
WIC Information System (n _{SA} = 30; n _{LA} = 493)		
Yes	17.2	24.6
No	82.8	75.4
Other Administrative System (n _{SA} = 1; n _{LA} = 16)		
Yes	100.0	6.6
No	0.0	93.4

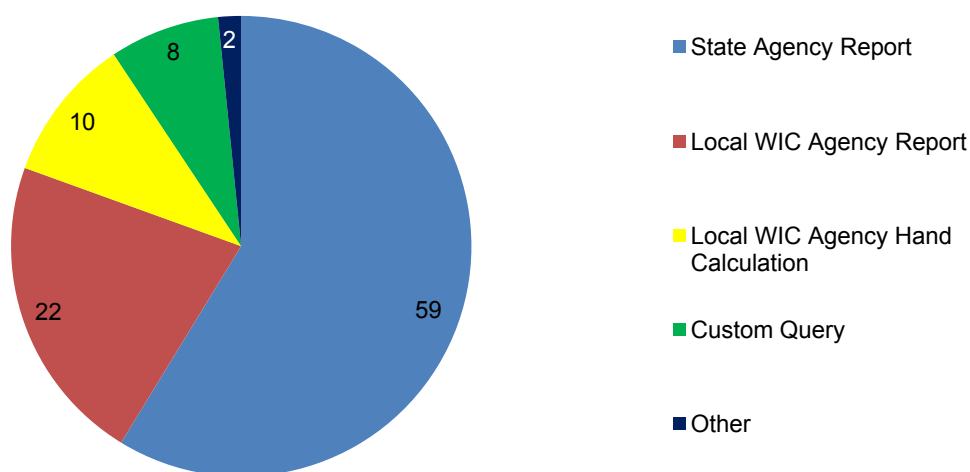
Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 36; n_{LA} = 596). All tabulations are weighted to account for agency nonresponse.

Note: Some State agencies and local agencies indicated they could report an estimate of the percentage of infants exclusively breastfed for at least three months from the WIC information system and another administrative system. We requested their estimate from the system storing the most exclusivity information. — indicates that no agencies met this criterion.

For about half of the agencies providing an exclusivity rate based on the WIC information system, the estimates represented infants born in a given time period that exclusively breastfed for at least three months (Exhibit V.18). Some agencies based the estimate on mothers or infants initially certified in a given time period that exclusively breastfed for at least three months, and other agencies based the estimate on infants born to mothers who were enrolled in WIC during pregnancy that exclusively breastfed. About one-fourth of agencies reported that the exclusivity rate at three months was based *only* on infants older than three months who were no longer exclusively breastfed. These WIC BPI study findings indicate that exclusivity rates may represent different subgroups of WIC participants or be estimated in different ways by different sources, so caution should be used when comparing rates across agencies (Appendix Exhibits D.29 through D.32).²¹

Exhibit V.19 shows the source of local WIC agencies' exclusivity rate estimates, among those agencies that collected exclusivity measures in the WIC information system. The predominant source was a report generated by the State agency followed by a report generated by the local agency. Other sources included hand calculations by the local agency and custom queries of the data system (see Appendix Exhibit D.32).

Exhibit V.19. Local WIC Agencies' Source of Breastfeeding Exclusivity Rate



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 31$; $n_{LA} = 512$). All tabulations are weighted to account for agency nonresponse.

Note: Based on the WIC information system. Numbers do not add to 100% due to rounding. Data are tabulated in Appendix Exhibit D.32.

²¹ For example, among the subset of agencies that could provide an estimate of the exclusivity rate for at least three months using the WIC information system, the mean rate at local agencies ranged from 21% for mothers or infants initially certified in a given time period to 28% for infants born to mothers who were enrolled in WIC during pregnancy (Appendix Exhibit D.31).

4. Breastfeeding Intensity

To fully assess breastfeeding, it is important to determine the relative proportion of milk or total feedings that are breast milk and infant formula among infants who are partially breastfed. Breastfeeding intensity is an outcome closely aligned with breastfeeding exclusivity because it is typically defined as the proportion of liquid or total feedings that are breast milk. (Exclusivity can be defined as no other liquids, including or excluding water.)

About two-thirds of agencies (63% of SAs and 69% of LAs) using the WIC information system measured breastfeeding intensity based primarily on the percentage of liquid feedings that are breast milk; one-third of agencies (31% of SAs and 35% of LAs) used the percentage of total feedings including solid foods (and they may have used both; Exhibit V.20; see Appendix Exhibit D.33 for participant-level information). Nearly all agencies based intensity on asking mothers about the past 24 hours (100% of SAs and 94% of LAs), but 6% of local agencies asked about the past seven days (Appendix Exhibit D.34).

Exhibit V.20. How Agencies Determine Breastfeeding Intensity (Percentages)

	State Agencies	Local Agencies
Based on the WIC Information System ($n_{SA} = 32$; $n_{LA} = 726$) ^a		
Percentage of liquid feedings that are breast milk	62.6	69.2
Percentage of total feedings, including solid foods, that are breast milk	31.1	34.7
Other	18.6	14.4
Number of times/how often mother breastfeeds	6.3	5.0
Based on Other Administrative Data System ($n_{SA} = 4$; $n_{LA} = 116$) ^a		
Percentage of liquid feedings that are breast milk	51.9	59.3
Percentage of total feedings, including solid foods, that are breast milk	22.1	41.9
Other	0.0	11.3
Number of times/how often mother breastfeeds	0.0	0.0

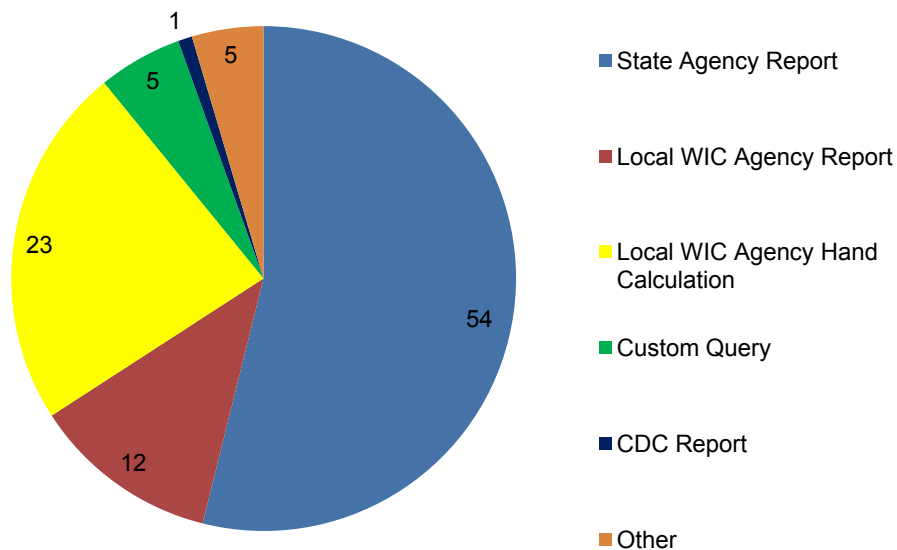
Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 36$; $n_{LA} = 825$). All tabulations are weighted to account for agency nonresponse.

Note: We defined *other administrative* system as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations.

^a Multiple answers allowed.

Among agencies that could provide estimates of intensity in any data system, the most common infant ages when the outcome could be provided were six months, one month, three months, and 12 months for both LAs and SAs; these estimates represented 58%, 46%, 36%, and 39% of participants at local agencies that could do so, respectively (Appendix Exhibit D.35). Among local agencies, intensity reporting capabilities by infant ages were similar for the WIC information system and other administrative systems (Appendix Exhibit D.36). Similar to exclusivity estimates, the source of the local agencies' intensity estimates were mostly from a report generated by a State agency or a hand calculation by the local agency, although custom queries of the data system and locally generated reports were used by some agencies (Exhibit V.21).

Exhibit V.21. Local WIC Agencies' Source of Average Breastfeeding Intensity Estimate



Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 346). All tabulations are weighted to account for agency nonresponse.

Note: Based on the WIC information system. Data are tabulated in Appendix Exhibit D.36.

CDC = U.S. Centers for Disease Control and Prevention.

Consistent with exclusivity estimates, recent estimates for intensity rates reflected information from 2012 and 2013. Some local agencies, 8% of those that could provide exclusivity or intensity, reported that the most recent estimates reflected information before 2012 (Appendix Exhibit D.37). Among local agencies that could report breastfeeding intensity as a percentage of total feedings that were breast milk feedings for infants at age three months, the mean intensity rate was 39% based on the WIC information system and 37% based on another administrative system (Exhibit V.22). Mean intensity rates at age three months varied slightly based on the source of the estimate, for example, 39% at local agencies using a State-generated report compared with 41% at local agencies using a report generated by the local agency and 37% for a local-agency hand calculation (Appendix Exhibit D.38).

Exhibit V.22. Agencies' Estimates of Breastfeeding Intensity for Infants at Age Three Months

	State Agencies	Local Agencies
<i>Percentage of Total Feedings That Are Breast Milk Feedings</i>		
WIC information system (n _{SA} = 4; n _{LA} = 118)		
Mean	35.7	39.4
Median	30.0	32.0
Range	0-75	0-100
Other administrative system (n _{SA} = 0; n _{LA} = 11)		
Mean	n.a.	37.0
Median	n.a.	30.0
Range	n.a.	9-100

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 7; n_{LA} = 169). All tabulations are weighted to account for agency nonresponse.

n.a. = not applicable.

Among agencies that collected information on breastfeeding intensity in the WIC information system, more than one third of SAs and LAs stored the information in separate data fields for the number of breast milk and for non-breast milk feedings, representing 45% of participants in those local agencies (Appendix Exhibits D.39 and D.40). Some agencies used a data field to record the percentage of total feedings that were breast milk (19% of SAs and 36% of LAs), and some used a data field to indicate whether breast milk feedings exceeded a certain threshold such as 50% (13% of SAs and 26% of LAs; Appendix Exhibit D.39). Agencies also reported using multiple methods.

VI. LESSONS LEARNED AND FUTURE FIELDING CONSIDERATIONS

Two related factors make the WIC BPI attractive for future fielding. First, the increased emphasis WIC has placed on breastfeeding underscores the need for having accurate, timely information on breastfeeding rates and on policies and practices that promote breastfeeding. Second, an objective of this study was to assess the WIC BPI as an ongoing data collection tool. This may be particularly relevant given the discontinuation of CDC's PedNSS and PNSS in 2012 (CDC 2014), which have historically provided public health practitioners, policymakers, and other stakeholders with regular, national-level estimates of breastfeeding in the low-income population, which predominantly participates in WIC or is WIC eligible.

This chapter discusses the lessons learned from fielding the WIC BPI and describes considerations for fielding it in the future. Specifically, we (1) describe the administrative feasibility, burden, and cost of collecting breastfeeding data at the local agency level and the quality of the data obtained from the new instruments implemented in this study and (2) discuss considerations for fielding the survey in the future, including its potential for integration into existing WIC data systems.

A. Evaluation of Collecting Breastfeeding Data from Local WIC Agencies

1. Administrative Feasibility

The WIC BPI, as implemented, was feasible for respondents from both SAs and LAs to complete. Both parts of the survey achieved high response rates with enthusiastic participation from many agencies. However, Part 2, which focused on four breastfeeding measures, was more difficult to complete, particularly for LAs. Nearly twice as many local agency staff entered Part 2 and exited it (or broke off) before making sufficient progress in the survey compared to Part 1, though the prevalence of incomplete cases was very small overall (30 out of 1,663 LAs [2%] were incompletes on Part 2 compared to 18 out of 1,676 LAs [1%] on Part 1). Some respondents also indicated directly that the questions were more difficult to answer. Later in this chapter we propose changes to further improve administrative feasibility.

We recommend fielding the WIC BPI as a web survey in the future. To our knowledge, all agencies had Internet access and therefore were able to complete the survey online. Administration on the web is preferable to a mailed survey because of its complex skip logic and preferable to a telephone survey because of the potential need to gather information to answer some of the questions or to involve multiple staff within an agency. The average of three to five login attempts per completed survey suggests participants spread out the work over time or shared the responsibility among multiple staff (Exhibit VI.1), which would not be practical if the survey were administered by telephone.

Exhibit VI.1. Number of Logins per Completed Survey

	State Agencies	Local Agencies
Part 1 (n _{SA} = 87; n _{LA} = 1,650)		
Mean	4.4	3.2
Median	4	2
Interquartile range	2–6	1–4
Part 2 (n _{SA} = 83; n _{LA} = 1,592)		
Mean	5.3	3.1
Median	4	2
Interquartile range	2–6	1–4

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 89; n_{LA} = 1,706). Tabulations are unweighted.

2. Burden and Cost

Our web survey software captured timestamp information for each question page in the survey (some pages contained more than one related question). We used the timestamp information, a form of paradata, to determine how long respondents spent on individual pages, modules, and the survey as a whole.²² State-level participants answered an average of 82 questions in 2.3 hours across both parts of the WIC BPI.²³ Local-level participants answered an average of 114 questions in 1.9 hours across both parts.

For each completed State and local agency survey, the average cost was \$55.26 and \$45.97, respectively. We calculated these costs assuming an hourly rate of \$24.13, which is the average of the median hourly rate of \$28.83 for social and community service managers and \$19.42 for staff in community and social service occupations provided in the May 2012 National Occupational Employment and Wage Estimates (Bureau of Labor Statistics 2013).

3. Data Quality

As described above, the high response rates and minimal breakoffs suggest the survey was feasible for most sample members to complete, which may indicate good data quality. We considered three potential indicators of poorer quality when evaluating the data collected in this first administration of the WIC BPI: items with more missing data, items that prompted many questions from respondents, and items that required more cleaning during data reduction. Although comparatively few items had any of these issues, some had multiple indicators of lower quality, such as the number of FTEs in a variety of agency positions and current breastfeeding estimates. We discuss each of the three indicators below.

²² The paradata findings must be interpreted with caution. The timestamp data may overestimate or underestimate the true time respondents needed to complete the survey. For example, a respondent might have gotten distracted for several minutes while on a survey page or might have logged out of the survey to gather materials needed to answer some of the questions. Combining paradata with other lines of evidence is nevertheless a useful strategy for identifying questions or modules that may be the highest priority targets for revision before the WIC BPI is fielded again.

²³ We had estimated prior to fielding the WIC BPI that SAs and LAs would respectively require 2.1 and 1.7 hours to complete both parts of the survey.

Items with More Missing Data. Respondents may opt not to answer questions if it is difficult to obtain the information needed to do so. In Part 1, nine questions were unanswered by 10% or more of State-level respondents eligible to answer the question; four of the questions asked respondents to provide a number. The three questions with the most missing responses were about the number of FTEs in breastfeeding related positions: total number of FTEs providing breastfeeding-related services in the agency (33%), number of FTEs for WIC designated breastfeeding experts (17%), and number of FTEs for PC program coordinators (14%). However, only three respondents were asked the total number of FTEs question because it was limited only to cases where no FTEs were reported for any breastfeeding-related positions; one of the three did not answer the question. Eleven percent of State-level respondents did not provide the Statewide number of participants in the peer counseling program. The remaining questions that SAs more commonly left unanswered were yes/no questions at the end of a series of similar items. For example, 13% of SAs (of 39 that were asked the question) did not indicate whether the agency had an MOU in place with schools with which they had coordination or outreach activities. This question was the last in a series of similar yes/no questions about MOUs. At least 10% of local-level respondents did not answer six Part 1 questions. Similar to SAs, three of the questions were about the number of FTEs or number of peer counselors (13% to 35% missing) and the remainder were in yes/no series of questions.

In Part 2, at least 10% of State-level respondents left 18 questions unanswered. These questions were typically in the same series collecting a breastfeeding estimate. For example, of the 35 SAs that indicated they could provide the percentage of infants that were exclusively breastfed for at least three months, 11% did not report the percentage or the number of infants included in the percentage; 17% of the SAs did not report the dates over which the estimate was reported. Although only 22 SAs indicated an estimate of breastfeeding intensity could be provided, 14% to 32% left at least one question in the estimate series unanswered. As in Part 1, longer questions with many yes/no items or grids with several rows and columns also tended to have more missing data. The question determining the frequency of reporting breastfeeding information to a variety of audiences had 14 rows and six columns (84 potential answers), and 11% to 21% of SA respondents left a row unanswered. Patterns were similar among LAs. Thirty-two items were unanswered by 10% or more of LA respondents. The 32 included some of the same breastfeeding estimate question series as SAs.

The higher share of missing data on some questions may indicate they may be difficult to answer because respondents were unlikely to have the information readily available or because respondents did not have information available in the formats requested in the survey. The questions in yes/no series or grids with many rows and columns may be missed unintentionally if respondents mistakenly overlook specific rows or if they grow fatigued and opt not to answer thoroughly. Future administrations of the WIC BPI could address these reasons for unanswered questions by omitting low-priority questions altogether, adding more triggers on longer questions to alert respondents to missed rows,²⁴ and providing more guidance to aid respondents in providing breastfeeding estimates. The last option is discussed in greater detail below.

²⁴ One consideration is the number of such triggers, or validations, to include in a survey. Questionnaire designers must consider the trade-offs between collecting complete information on every question—which can frustrate respondents and encourage them to break off participation—or allowing some missing information to avoid frustrating respondents.

Items that Prompted Respondent Questions. We maintained records of respondents' questions or problems that we received via email or telephone throughout fielding and used it to identify questions for which data may be of lower quality and that could be refined in the future. For instance, some Part 1 respondents requested clarification for the questions about the number of FTEs in breastfeeding-related positions. Though instructions were provided in the survey, some needed assistance in calculating FTEs. One agency had a 35-hour work week and the respondent was unsure whether to use the agency definition for one FTE versus the 40-hour work week specified in the survey.

Similarly, Part 2 respondents requested clarification about what was meant by a "data system" or the "WIC information system" beyond the definitions provided in the survey. For example, one asked, "Are the additional data systems referred to electronic or may they be paper storage systems?" and another was unsure if the WIC information system was the same as the State's MIS. Many respondents requested guidance for answering the breastfeeding intensity estimate questions. Some did not seem to interpret the definition of intensity provided in the survey in the way that was consistent with the estimate requested. If these Part 1 and Part 2 questions are fielded again, they could be further revised to encourage respondents to answer them in a more standardized fashion by clarifying or repeating definitions, for example, or asking respondents to provide the number of hours in a work week and the number of hours in a job position so that respondents do not have to calculate FTEs themselves. Other recommendations for instrument refinement are discussed in the next section.

Items that Required More Data Cleaning. Some questions or question series required more data cleaning after data collection was complete. Often these questions were identical to ones identified through answering respondents' questions, suggesting more participants in the survey had difficulty with items than the number who sought assistance. The breastfeeding intensity estimates questions in Part 2 of the survey, for example, required more review to ensure responses were logical. In some cases respondents indicated in initial questions that the WIC agency collected and stored information on intensity but wrote responses later (for example, "do not define breastfeeding intensity") that made it apparent an estimate could not be reported. We therefore edited such responses to indicate that the agency did not collect and store information on intensity.

B. Recommendations for Further Instrument Refinement

This study represents the first time the WIC BPI was fielded. The information gathered was in many ways exploratory, helping FNS to understand the variety of policies and practices to promote breastfeeding as well as the measurement processes, data systems, and reporting around breastfeeding outcomes. This new knowledge can be used to shorten the WIC BPI instrument for future use as an ongoing data collection tool. Here, we recommend specific changes and identify additional considerations that can be used to further guide refinement decisions for the survey.²⁵

²⁵ Steps that are standard practice whenever an instrument is fielded again, such as reviewing responses to "other (specify)" questions to determine if new response options should be added, are not discussed here.

1. Considerations for Including Topics or Questions

The considerable investments in getting sample members to participate in a survey encourages study sponsors and researchers to ask more questions in order to make the most of the investment, yet the resulting high burden may discourage participation (Couper 2013). Eliminating high-burden questions or modules in the WIC BPI could reduce respondent burden in future administrations of the WIC BPI.

In Part 1, questions about the number of FTEs in paid staff positions and open-ended questions were among the most burdensome for both State- and local-level respondents. State agency respondents spent the most time on three open-ended questions about policies or practices the respondent would like to implement at his or her agency (5.3 minutes), an existing policy or practice the respondent would recommend to other WIC agencies (4.0 minutes), and an agency policy to promote breastfeeding that was not covered elsewhere in the survey (3.5 minutes; Appendix Exhibit E.1). Two of the questions with the highest average burden for State-level respondents were among the most burdensome for local-level respondents: number of FTEs in paid staff positions and policies or practices the respondent would like to implement at his or her agency (3.9 and 2.6 minutes, respectively; Appendix Exhibit E.2).

Questions in the breastfeeding estimates module in Part 2 required the most time for State and local agencies (Appendix Exhibits E.3 and E.4, respectively). These questions included percentages of infants on fully, partially, and non-breastfeeding food packages (13.1 and 10.1 minutes, respectively, for State and local agencies) and the percentage of infants breastfed exclusively for at least three months, the total number of infants, and the population represented in the estimate (7.4 and 6.0 minutes, respectively). Not surprisingly, yes/no questions in both parts of the WIC BPI were among the least burdensome because they did not require respondents to review a list of response options before selecting an answer.

The burden placed on respondents answering open-ended questions can be reduced by eliminating the questions altogether or, if the topics are sufficiently important, using responses from this administration of the WIC BPI to create closed-ended response options (for example, the responses to the open-ended question on the types of tangible incentives given to encourage breastfeeding could be used to develop a list of common items). Strategies for reducing the burden in the FTE and estimates questions are discussed elsewhere in this chapter.

Although eliminating or streamlining individual items might reduce burden slightly, dropping topics altogether could have a greater impact. Exhibit VI.2 presents the mean number of questions answered and the mean number of minutes for each module in the survey. In Part 1, State agency respondents who completed the survey answered an average of 44 questions in 64 minutes, with the greatest number of questions answered in the first two modules: agency and staff overview and staff training. The first and last modules took the longest to complete, which reflects the most burdensome questions for State agencies residing in these modules (Appendix Exhibit E.1). Questions in the peer counseling and other policies and practices modules (Modules D and L) took substantially longer to complete per question compared to the other modules. While respondents spent at least 3 minutes per question in those two modules, the average time per question in the remaining modules ranged from 0.5 to 1.5 minutes.

Exhibit VI.2. Module-Level Burden Estimates in the WIC BPI, among Respondents Who Completed One or Both Parts

	State Agencies		Local Agencies	
	Mean Number of Questions Answered	Mean Minutes	Mean Number of Questions Answered	Mean Minutes
Part 1 ($n_{SA} = 87$; $n_{LA} = 1,650$)				
A: Agency and Staff Overview	8.9	13.7	6.8	7.7
B: Staff Training	6.7	7.1	10.0	7.0
C: Participant Breastfeeding Education	3.8	3.0	8.0	5.2
D: Peer Counseling	2.6	8.4	4.3	9.4
E: Prenatal Participant Contact	1.4	1.8	4.0	3.4
F: Postpartum Participant Contact	2.6	2.4	6.1	4.1
G: Breastfeeding Aids	3.3	3.6	7.0	4.9
H: Food Package Issuance	1.5	1.8	3.0	2.8
I: Breastfeeding Referrals and Coordination	2.4	1.3	4.0	2.4
J: Outreach Activities	3.9	2.8	5.9	2.6
K: The Clinic Environment	1.0	0.9	4.0	2.5
L: Other Policies and Practices	5.7	17.0	6.4	9.5
Total (Part 1)	44.0	63.7	69.3	61.5
Part 2 ($n_{SA} = 83$; $n_{LA} = 1,592$)				
M: WIC Data Systems and Data Linkages	5.5	8.0	5.0	4.3
N: Breastfeeding Measures Overview	2.5	8.8	2.3	4.9
O: Breastfeeding Initiation Measurement	6.1	4.6	7.8	4.3
P: Breastfeeding Duration Measurement	2.5	2.7	3.5	3.0
Q: Breastfeeding Exclusivity Measurement	2.7	3.4	3.8	3.4
R: Breastfeeding Intensity Measurement	1.7	6.2	2.2	3.8
S: Current Breastfeeding Estimates	9.4	26.1	9.0	17.5
T: Breastfeeding Data Collection	4.3	5.2	7.4	7.1
U: Separate Data Systems	0.5	2.4	0.3	1.1
V: Breastfeeding Reporting	3.1	6.2	2.9	3.4
Total (Part 2)	38.2	73.7	44.2	52.8
Total (Parts 1 and 2)	82.2	137.4	113.5	114.3

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 89$; $n_{LA} = 1,706$). Tabulations are unweighted.

Local agency respondents answered more questions but took nearly the same amount of time to complete Part 1 (69 questions over 62 minutes). The most questions answered were in the staff training and participant breastfeeding education modules (Modules B and C), and the peer counseling and other policies and practices modules (Modules D and L) took the longest to complete. Similar to State-level respondents, local agency respondents spent the most time per

question in the latter two modules (1.5 to 2.2 minutes). Respondents spent 0.4 to 1.1 minutes per question in other modules.

In Part 2, State agency respondents who completed the survey took an average of 74 minutes to answer 38 questions. Local agency respondents answered more questions in less time (53 minutes for 44 questions). Respondents at both levels by far spent the most time in the current breastfeeding estimates module (Module S), which also had the greatest number of questions answered. State-level respondents answered nine questions in 26 minutes and local-level respondents answered approximately the same number of questions in 18 minutes. Four of the five most burdensome questions for State agencies were in the breastfeeding estimates module as were all five of the most burdensome questions for local agencies (Appendix Exhibits E.3 and E.4).

Taken together, these findings suggest that reducing burden in the agency overview and other policies and practices modules in Part 1 and the current breastfeeding estimates module in Part 2 will have the greatest impact on the amount of time participants spend completing the WIC BPI. Considerations for streamlining the questions about outcome measures are discussed below.

Although it will not substantially impact the burden on respondents, one additional strategy can reduce the resources needed to field the survey in the future. Eliminating questions that very few respondents reached can reduce the time needed to program and test the web survey before data collection and to process, analyze, and report the findings after data collection. Information about such rare circumstances may be relatively less important to collect. For example, three questions in Part 1 of the survey were reached by less than 20% of the sample:²⁶

- Only three SAs and 251 LAs reached the question on the total number of FTEs providing breastfeeding-related services in the agency (and nearly one-third chose not to answer it; data not shown).
- Eight percent of LAs required participants to make a deposit before a breast pump is issued.
- Eighty-five percent of SA respondents skipped the question about how participants are enrolled in the PC program because the question was asked only of direct-service SAs with a PC program that did not have automatic enrollment.

2. Breastfeeding Outcome Measures

As noted previously, respondents had more difficulty completing Part 2 than Part 1, particularly the measurement process and outcome estimate questions for breastfeeding initiation, duration, exclusivity, and intensity. We recommend providing respondents specific examples of how to answer estimate questions (for example, the percentage of infants breastfed exclusively for at least three months, the total number of infants on which the percentage is based, and population represented, and the time period over which the exclusivity data were collected), such as brief

²⁶ Part 2 of the survey was designed to maximize flexibility in the types of breastfeeding estimates agencies could report in the survey and minimize burden by not requesting agencies to report multiple estimates of the same outcome if agencies were capable of doing so (for example, the percentage of infants exclusively breastfed at multiple ages and the average length of time infants were exclusively breastfed). Therefore, by design many questions in Part 2 were reached by few respondents. Streamlining Part 2 is discussed in more detail in the following section.

vignettes describing a hypothetical agency's data and how it should be used to complete the WIC BPI or a separate worksheet that could be completed as hard copy. Future rounds of the survey could include a revised measures section to focus on a more limited set of outcomes to reduce respondent burden. For example, we found that fewer agencies could produce an estimate of breastfeeding intensity even if the outcome were assessed and documented in a data system (Exhibit V.6). If intensity is a lesser priority, the intensity estimate questions could be eliminated to reduce burden.

Similarly, the WIC BPI gathered detailed information on the types of estimates agencies were capable of producing even though only one estimate for each outcome was collected. If more than one estimate of exclusivity is desired, FNS may wish to collect estimates of the percentage of infants who were exclusively breastfed for at least six months, rather than just three months. More agencies reported being able to provide a six-month percentage than an average length of time (Appendix Exhibit D.25). Likewise, the estimates collected could become more standardized by limiting the variation in populations and time periods represented. Targeting this estimate based only on a specific population will promote consistency across agencies in the estimates provided, similar to that found for the initiation and duration estimates in the WIC PC Reports, with the recognition that fewer agencies may be capable of providing any particular type of estimate.

Outcome questions could also be refined to more closely match how some respondents defined and operationalized breastfeeding intensity. Although the WIC BPI defined intensity as the number of breast milk feedings out of a total number of feedings, some respondents' answers in the survey indicated alternative definitions. For example, some defined intensity as the amount of formula issued to participants. One wrote that his or her agency defined intensity as "if anything other than breastmilk [sic] is routinely given." These definitions could be accommodated in the WIC BPI if they are of interest to FNS.

3. Considerations for Organizing Topics

The order in which topics are presented in the survey is another instrument design consideration. Among the 26 LA respondents who started Part 1 of the WIC BPI but did not complete it, more broke off from the survey in the first two modules than any others (five each); in Part 2, the pattern was similar among the two SA and 71 LA respondents who did not complete the survey after starting it, outside of the breastfeeding estimates module (Module S; Appendix Exhibits E.5 and E.6). Fifty-six percent of the breakoffs in Part 2 were in Module S, which is another indicator of the difficulty of those questions for respondents. This suggests that higher priority topics should be placed earlier in the survey to ensure key data are collected from partials and included in analyses.

The order in which respondents completed Part 1 of the survey underscores the need to present high-priority topics first. We ordered the policies and practices topics from higher to lower priority and allowed respondents to choose the order in which to complete the modules after answering some preliminary questions that were essential to routing participants correctly (Module A). Despite having the flexibility to choose topics, the majority of respondents who completed the survey followed the topics in the order presented (Appendix Exhibit E.7).

C. Recommendations for Future Implementation

Our recommendations for future implementation include both short- and long-term suggestions. These recommendations pertain to the sample design or data collection approach, and may be implemented alone or in combination with the recommendations for refining the WIC BPI instrument itself.

If all Part 2 questions were repeated in full, we recommend inviting State agencies to participate first or to prepare them for possible questions from local agencies. SAs would then be able to develop answers to LAs' more system-specific questions.

In the longer term, FNS may wish to consider alternative ways of collecting breastfeeding-related data from WIC agencies. Leveraging administrative data on breastfeeding outcomes that agencies already collect can greatly reduce burden on staff, particularly if information is collected using standardized processes and formats. Findings from the WIC BPI shed light on three critical elements needed to integrate breastfeeding reporting in WIC information systems: assessment and storage, standardization, and retrieval. In this discussion we focus primarily on exclusivity and intensity because the WIC BPI gathered more detailed information about these outcomes, including current estimates, although the same principles apply to initiation and duration.

It would be impossible to integrate breastfeeding reporting functions similar to the WIC BPI in an information system if the data are not stored in it in the first place. Nearly all SAs and LAs collected information on initiation, duration, and exclusivity, and approximately half collected information on intensity (Exhibit V.1). Agencies that collected each measure were most likely to store the information in their WIC information system or MIS (Exhibit V.5). This system is the most attractive source of administrative data not only because all agencies have such a system but also because other administrative data systems rarely contained information on the full population of WIC participants (Exhibit IV.1).

Although WIC PC, PedNSS, and PNSS have all demonstrated the feasibility of collecting standardized breastfeeding data from WIC agencies, the WIC BPI suggests more work is needed to collect outcomes in a standardized format. Nearly all LAs assessing a breastfeeding outcome of interest did so at the postpartum certification appointment (Exhibit V.9), but the questions asked, the populations included in the estimate, and the way the measure was defined in the data system varied considerably. For example, no more than one-fourth of LAs that assessed exclusive breastfeeding asked the same question of mothers (Exhibit V.15). Standardizing measurement processes ensures consistency of the underlying estimates and facilitates comparisons across agencies.

The third critical element for using agencies' WIC information systems for breastfeeding estimates is the ability to retrieve information from the system. Although nearly all agencies collected information on exclusivity, up to 40% reported that it was impossible to provide an estimate of the percentage of women who were exclusively breastfeeding (Exhibit V.7). Information collected from participants may be stored in unstructured text fields, for example, or agency staff lack the ability to generate a non-standard report. FNS can encourage standardization in both processes and data fields across agencies by publishing technical guidance similar to the PedNSS and PNSS record specifications (CDC 2004a, b). These specifications defined the minimum data elements required in a record and optional fields that agencies may have included. FNS could also include additional guidance through resources such as the "Functional Requirements Document for a Model WIC Information System" (FNS 2008).

The Functional Requirements Document identifies several breastfeeding-related data elements and standardized reports that FNS recommends for inclusion in WIC data systems to support program functions (for example, whether infants are currently breastfed, were ever breastfed, and breastfeeding duration). Recommendations for further standardization of the data elements already in the document would facilitate reporting breastfeeding estimates, and new data elements could be added. For example, breastfeeding duration is defined as “length of time breastfeeding took place,” specified as alphanumeric format, and does not have edit/validation requirements (page 4-76). Recommending agencies to collect duration in standardized units (for example, start and stop dates or the number of weeks) could facilitate agencies providing standardized estimates from their data systems. Similarly, the Functional Requirements Document recommends an indicator for whether an infant received supplemental formula. This indicator identifies infants who are no longer exclusively breastfed but cannot quantify the duration of exclusivity. Start and stop dates or the length of time would provide more in-depth information that could be compared, for example, to Healthy People 2020 Health Objectives. Finally, breastfeeding intensity could be added as a new data element recommended for consideration. Such modified or newly added data elements could further be included as potential standardized reports for States to consider when designing an MIS or developing requirements for a vendor-created system, or the system could be designed to enable users to run ad hoc reports on breastfeeding estimates.

FNS may build on the WIC State Agency Model (SAM) project to assess the feasibility of integrating breastfeeding reporting into a multi-State MIS. Both the Successful Partners in Reaching Innovative Technology (SPIRIT) and Mountain Plains States Consortium (MPSC) have completed Statewide rollouts as of October 2013 and their systems are being adopted in additional States (FNS 2013c). Integrating an administrative reporting function in a common MIS that has likely been customized to meet the needs of individual States would allow FNS to evaluate the long-term feasibility of collecting timely, accurate breastfeeding data from administrative records and to identify technical issues to be addressed.

In summary, integrating breastfeeding data collection into WIC information systems is a promising alternative to surveying agencies. The approach will require long-term guidance from FNS so that agencies collect and store information in a consistent manner and data systems developers include standardized fields. The MIS consortia supported by the SAM project may be well positioned to test the feasibility of such an approach.

VII. CONCLUSION

The WIC BPI was created as part of FNS' ongoing efforts to promote breastfeeding in the WIC Program, monitor trends in breastfeeding rates among WIC participants, and identify potential policies and practices to increase breastfeeding exclusivity and duration. Given the limited amount of data available at the local level, and the continued emphasis on breastfeeding both in WIC and in the public health community more generally, this study offers a unique assessment of the types and diversity of policies and practices offered by local and State WIC agencies, the breastfeeding measures agencies collect and report, and the data systems used to do so. This chapter summarizes key findings for each of these topics and makes recommendations for future research.

A. Summary of Key Findings

In this section we review findings from the WIC BPI's three main topic areas: policies and practices that WIC agencies used to promote breastfeeding; data systems used to store breastfeeding information; and the collection and measurement of breastfeeding outcomes.

1. Breastfeeding Policies and Practices

The WIC BPI found that agencies offered a diverse set of ways with which to promote and support breastfeeding. The survey documented for the first time the variety and extent of policies and practices that agencies use to promote breastfeeding.

At the State level, we focused on whether agencies' formal policies exceeded federal requirements. This was true for relatively few agencies, with the most common in the areas of staff training and breastfeeding aids. The majority of the questions focused on agencies' breastfeeding promotion practices, especially practices at local agencies.

Staff credentials and staff training ensure that staff have an essential set of skills and knowledge with which to promote breastfeeding, and that they maintain and improve those skills over time. Most SAs and LAs had at least one staff member with a breastfeeding credential. Certified Lactation Counselors were the most prevalent, followed by IBCLCs. Training new staff on breastfeeding promotion was common, particularly for peer counselors, with nearly all agencies with a PC program training newly hired peer counselors. Training for these staff was often developed by USDA's FNS and/or a State WIC agency. Peer counselors were also the most likely to receive ongoing breastfeeding promotion training, typically offered monthly or quarterly, compared to other ongoing training for other staff which was typically held annually.

Breastfeeding aids and promotion practices, as well as breastfeeding incentives, can directly support the initiation and continuation of breastfeeding. In the WIC BPI, breast pumps were the most common breastfeeding aid made available to participants, with almost all agencies providing them, while breast milk storage bags were the least common. Nearly all agencies gave WIC mothers manual pumps. Electronic pumps were the type most frequently loaned. The most common circumstance for issuing the pump type distributed most often was mothers returning to work or school, experiencing some other type of separation, or having feeding problems. The survey also asked about breastfeeding incentives provided by agencies. Two-fifths of LAs provided incentives without monetary value to participants to initiate or continue breastfeeding. Another two-fifths of LAs promoted breastfeeding with incentives of nominal monetary value.

One way in which WIC supports improving the nutritional status of low-income women, infants, and children is through the issuance of food packages. WIC's 2009 change in the food package allocation was designed to increase incentives for exclusive breastfeeding by providing fully breastfeeding mothers and infants with the most comprehensive food packages. In the WIC BPI, one-fourth of LAs did not allow formula to be issued to fully breastfeeding participants in the first month postpartum at participants' request. The majority of LAs and nearly half of SAs reported issuing formula when the mother no longer wished to exclusively breastfeed. When a participant on a fully breastfeeding food package requested formula, all LAs reported providing counseling about changing food packages and/or the benefits of breastfeeding.

Breastfeeding education can help mothers learn the benefits of breastfeeding and effective feeding techniques. Agencies reported in the WIC BPI that breastfeeding education was offered in many different languages besides English, though Spanish was the most common. It was also offered in many different formats, with in-person group- and individual-level education sessions the most common.

The support that mothers (in other words, peers) provide to other mothers has been shown to be one of the most successful approaches to encourage mothers to breastfeed their babies (Meier et al 2007; Ingram et al. 2010). The WIC BPI found that nearly all SAs operate or oversee LAs that have peer counseling programs, whereas just over two-thirds of LAs operate a PC program. WIC staff initiated most enrollment efforts, although at many LAs, participants could request enrollment. Nearly all agencies offered enrollment at a prenatal visit, with many also offering it at postpartum certification visits, and when participants were having breastfeeding problems.

In addition to peer counseling, there was diversity in the frequency of WIC staff's contact with participants, and the mode and environment in which it occurred. When pregnant women enrolled in WIC, almost all LAs provided individual breastfeeding counseling, enrolled pregnant women in the peer counseling program (if available), and provided information about the greater quantity and variety of foods in the fully breastfeeding food package. Staff frequently had contact with pregnant participants by telephone, though nutrition education classes and breastfeeding support groups were also popular. For women enrolling in WIC after giving birth, many breastfeeding-related practices were similar to those for women enrolling prenatally. LA staff interacted with postpartum participants more often in hospitals or homes and less often in nutrition education classes compared to their interactions with pregnant participants.

Whether the environment of a WIC clinic promotes breastfeeding, both in terms of agency practices and physical features, has been shown to improve the breastfeeding knowledge, attitudes, and practices of WIC clinic staff (Khoury et al. 2002). The WIC BPI showed that although direct-service SA and LA staff used a variety of strategies to promote breastfeeding, clinic staff at nearly all agencies promoted breastfeeding for as long as possible or as preferred by both the participant and her infant. Nearly all agencies reported the following practices at clinic sites: respecting each mother's infant feeding decisions, using breastfeeding-friendly language, offering breastfeeding support on a walk-in basis, and encouraging participants to breastfeed anywhere in the clinic. The most common breastfeeding-related clinic features were posters showing breastfeeding and breastfeeding materials featuring ethnically diverse parents and infants, while the least common was furniture to make breastfeeding mothers more comfortable.

2. Breastfeeding Data Systems and Reporting

Information about WIC agencies' data systems can help policymakers and program managers understand their capabilities for collecting and monitoring breastfeeding outcomes and analyzing changes over time in an effort to identify effective ways to increase breastfeeding rates. In addition, knowing whether agencies can link data across systems and to whom they report information demonstrates the extent to which information can be shared for program monitoring and evaluation.

Part 2 of the WIC BPI collected information on data systems that State agencies and local WIC agencies use to store breastfeeding information. The survey also asked agencies about their breastfeeding data linkages and collection and reporting practices. In this section, we describe the findings related to these topics.

The study found that more than one-third of agencies stored breastfeeding information in another administrative system separate from the WIC information system. Most agencies reported doing so because the WIC information system does not track every aspect of program operations that they needed to track. For LAs, the most common type of other administrative data systems were peer counseling program databases and breast pump issuance databases. Relatively few agencies stored breastfeeding information in a separate data system (not used to administer the WIC Program), such as a data system containing survey data or qualitative information from interviews or focus groups with participants. Data linking across systems was also uncommon, with very few agencies reporting linking breastfeeding data in their WIC information system with other data sources. The most common uses for those that did were service delivery or program management.

Staff typically entered breastfeeding information directly into the WIC information system, though some agencies also used paper forms. Asked about the types of information related to breastfeeding that they stored in the data system, many agencies reported storing maternal or infant factors such as infant health issues and prenatal WIC participation and agency factors such as breastfeeding education contacts and breastfeeding aid issuance. Finally, agencies were asked to whom they reported their agency's breastfeeding outcomes in addition to their reporting requirements for the USDA. LAs most commonly reported breastfeeding estimates to SAs, State or local health authorities and community coalitions.

3. The Collection and Measurement of Breastfeeding Outcomes

The WIC BPI collected information on the capabilities of SAs and LAs to collect, store, and report breastfeeding outcomes in various data systems and process-level information about the specific questions that WIC clinic staff asked mothers in order to assess their infants' breastfeeding status. Knowing the extent to which agencies collect outcome measure data will help FNS when considering the use of the WIC BPI as an ongoing data collection tool for program monitoring and improvement. For example, if most agencies collect exclusivity data, then exclusivity data could be collected and aggregated on a regular basis for program monitoring, along with breastfeeding policies and practice information, and FNS could evaluate best practices in promoting exclusive breastfeeding.

Nearly all agencies stated that they collected information on breastfeeding initiation, duration, and exclusivity, whereas about half of all agencies collected information on breastfeeding intensity as an outcome. If an agency collected a particular breastfeeding outcome, the outcome was most likely stored in the WIC information system, rather than in another administrative data system used for some aspect of WIC operations or in a separate nonadministrative data system.

Given that most agencies collect initiation, duration, and exclusivity, and half of the agencies collect intensity, the next step in considering the WIC BPI as an ongoing data collection tool is to determine whether agencies could *provide* estimates of these measures. The ability to provide breastfeeding estimates was generally higher for agencies using their WIC information system than another system. Agencies could most easily provide breastfeeding estimates for initiation and duration (which they are currently required to report to FNS), but perceived they could provide exclusivity estimates with more difficulty and intensity estimates only with great difficulty.

For outcome measures that agencies can provide, if there are differences across agencies in how the measures are defined or in the populations or time periods they represent, then any differences in outcomes might reflect these attributes rather than specific breastfeeding policies and practices. With this in mind, the WIC BPI asked agencies how they defined breastfeeding initiation, duration, exclusivity, and intensity and how their clinic staff ask mothers questions to assess or determine these outcomes.

The public health definition for initiation is typically based on asking mothers if they *ever* breastfed their infant and whether they are *currently* breastfeeding. The WIC BPI showed that nearly all agencies store information on both of these questions, although in some cases WIC agencies relied on the percentage of infants receiving fully or partially breastfeeding food packages to determine breastfeeding initiation and the length of breastfeeding (duration).

WIC agencies also used multiple ways of determining breastfeeding duration. For many agencies the most common methods were calculating the difference between the dates when breastfeeding started and using the length of time reported by the mother, though nearly half of agencies *also* used the length of time an infant received a fully or partially breastfeeding food package.

Similar to duration, agencies used multiple ways of determining breastfeeding exclusivity. Most agencies that determined exclusivity could report it based on infants' receiving the fully breastfeeding package, though about half of agencies could report exclusivity based on infants receiving no solids, water, or other liquids aside from breast milk. Agencies reported multiple ways of determining the length of breastfeeding exclusivity; among LAs, the most frequent method was the number of days, weeks, or months as reported by the mother. There was also a wide variability in the infant ages at which agencies could report exclusive breastfeeding. Nearly all agencies could report exclusivity at six months. Three months and one month were the next most common months.

The majority of agencies measured breastfeeding intensity based primarily on the percentage of liquid feedings that are breast milk, though some agencies used percentage of total feedings (and some may have used both). Nearly all agencies based intensity on asking mothers about the past 24 hours; the rest asked about the past seven days. Among agencies that could provide intensity estimates, the most common infant ages when the outcome could be provided were six months, one month, three months, and 12 months.

B. Recommendations for Future Research

With the continued emphasis on breastfeeding—increasing the proportion of infants who are ever breastfed, increasing the duration of breastfeeding, and increasing the duration of exclusive breastfeeding—in the WIC Program and the public health community at large, the WIC BPI Study comes at a critical time when more in-depth information on the types and diversity of policies and

practices offered by local and State WIC agencies can be used for program monitoring and improvement. The strengths of the WIC BPI—that it was conducted as a *census* of State and local WIC agencies and has the most comprehensive set of information about breastfeeding policies and practices, data systems, and outcome measures—make it an attractive and unique data source with which to perform breastfeeding policy research. The following are recommendations for future research using the WIC BPI data.

- Explore urban/rural differences in prevalence and diversity of breastfeeding policies and practices.
- Conduct multivariate analysis of the association of breastfeeding outcomes with policies and practices. Examples of policies and practices include frequency of contact, mode of breastfeeding education, and peer counseling program and frequency of contact with peer counselors.
- Conduct descriptive and multivariate analysis of agencies' ratings of difficulty in collecting and providing breastfeeding outcome measures. Are they related to staff credentials, agency size, audiences to whom the agency reports data, agencies' data systems?
- Conduct multivariate analysis to further investigate the use of multiple education materials and developers of staff training materials to address the utility of using materials from breastfeeding support organizations and public health organizations.
- Conduct multivariate analysis to identify practices and policies that differentially affect initiation and duration rates, accounting for caseload characteristics.
- Identify the top three practices that local agencies could focus on to increase breastfeeding exclusivity or duration (accounting for caseload and staff characteristics).
- Examine whether there is regional variation in the types of questions clinic staff ask participants for each of the outcome measures and whether it is related to caseload characteristics.
- Describe the types of agencies that use another administrative data system for breastfeeding information compared with agencies that only use the WIC information system (for example, whether they are hospital-based or situated in a health department).

C. Lessons Learned and Future Fielding Considerations

The increased emphasis WIC has placed on breastfeeding underscores the need for having accurate, timely information on breastfeeding rates and on policies and practices that promote breastfeeding. The WIC BPI could serve that purpose in the future as an ongoing data collection tool.

The WIC BPI was feasible as a web survey for respondents from both SAs and LAs to complete. Both parts of the survey achieved high response rates and minimal breakoffs with enthusiastic participation from many agencies, indicating not only a high degree of feasibility, but excellent data quality overall as well. Any future fielding of the WIC BPI could be as a web survey, as all agencies were able to complete the survey online. The web survey also permitted agencies to gather information that they needed to answer some of the questions and to involve multiple staff within an agency.

In the longer term, FNS may wish to consider alternative ways of collecting breastfeeding-related data from WIC agencies. Leveraging administrative data on breastfeeding outcomes that agencies already collect can greatly reduce burden on staff, particularly if information is collected using standardized processes and formats. Integrating breastfeeding data collection into WIC information systems is a promising alternative to surveying agencies. The approach will require long-term guidance from FNS so that agencies collect and store information in a consistent manner and data systems developers include standardized fields.

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APPENDIX A
INSTRUMENT DEVELOPMENT AND TESTING,
SURVEY ELIGIBILITY, AND WEIGHT CONSTRUCTION

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A. Instrument Development

We conducted several activities to develop and refine the WIC BPI: a preliminary investigation with eight WIC agencies, substantial feedback from FNS and an external panel of WIC and breastfeeding experts, and a pretest. For the preliminary investigation, in summer 2011 we conducted a series of semi-structured qualitative interviews with representatives from five State, one ITO, and two local WIC agencies to gather in-depth information about their policies and practices to promote breastfeeding, the data systems in which breastfeeding information is stored, their processes for assessing and measuring breastfeeding outcomes, and to whom breastfeeding information is reported. Participants also shared examples of recent breastfeeding reports. We used the interviews and reports to inform instrument development.

Once the instrument was drafted, we sought input from FNS and our expert panel in order to refine the questions and response options and prioritize topics. Through this iterative process we finalized a revised draft of the WIC BPI and pretested it in fall 2011 in a two-step process with four State and five local WIC agencies. Participants completed a hard-copy version of the instrument and provided feedback during a telephone debriefing interview. After the first round of interviews, we revised the questionnaire and pretested the revised version in a second round.

Pretest participants consistently reported that the instrument was too burdensome. We worked with FNS to develop a new strategy for minimizing perceived and actual burden by (1) splitting the survey into two parts to be fielded to the same sample at separate times, and (2) linking to the WIC Participant and Program Characteristics 2012 data to obtain estimates of initiation and duration instead of asking respondents to provide the estimates in the WIC BPI.

B. Instrument Programming and Testing

Dividing the survey into two parts further facilitated our ability to design it in modules. Part 1 of the survey, which addresses policies and practices to promote breastfeeding, comprised topics that were independent of each other. Therefore, we programmed the survey so that respondents could choose the order in which to answer questions on each policy or practice area after answering some preliminary questions necessary to determine the skip logic. After completing the first module, respondents could select from remaining topics in a menu. This design enabled agency directors to determine which staff member was best suited to answer questions about specific topics, and topics that were not applicable to an agency were not presented at all (for example, an agency without a peer counseling program could not access the peer counseling module). Although Part 2 of the survey, which addressed breastfeeding data systems, measurement, and reporting, was also divided into modules by topic, the complexity of the skip logic in Part 2 did not allow for the same nonlinear design as was possible with Part 1. Therefore, all respondents completed Part 2 in the same topic order.

Once we programmed each part of the survey for web administration, we conducted thorough testing to ensure wording for questions and response options, the skip logic, and validations (that is, prompts that notify respondents if a question was unanswered or if an invalid response was provided) were all programmed as intended and displayed properly across different Internet browsers.

C. Eligibility to Participate in WIC BPI

As described in Chapter II, we fielded the WIC BPI in two parts. Eligibility for the survey was determined according to whether an agency existed when Part 1 was launched. Agencies that were listed in the WIC Local Agency Directory, but closed prior to Part 1, were counted as ineligible for both parts of the survey. Agencies that were eligible to participate in Part 1, but closed or merged before Part 2 was launched, were treated as ineligible for Part 2. Finally, for agencies that participated in Part 1 but merged with another agency before Part 2, State or local agency staff helped to determine which existing agency absorbed the agency that was no longer operating at the start of Part 2. These agencies were coded as eligible for Part 1 and ineligible for Part 2.

D. Weight Construction

WIC BPI's study design consisted of a census of State and local WIC agencies in 2013. Information was collected in two field periods, referred to as Part 1 and Part 2. At the end of each field period, Mathematica survey staff assigned final status codes to each agency, which were further categorized into three groups for the weighting process: ineligible (460), complete (030, 039), and noncomplete (000, 351, 490). Because agencies that completed the survey may differ from agencies that did not complete the survey, census weights were needed to minimize the potential for nonresponse bias. Because this was a census, and not a sample, weights consisted solely of nonresponse adjustments and did not require further adjustment to account for selection probabilities.

Weights were constructed using a tabular cell-based approach. That is, we compared characteristics of responding and nonresponding agencies and then used those factors on which the agencies differed to define adjustment cells of homogeneous agencies. All responding agencies in a cell received the same adjustment factor. To determine the weight classes, we used agency-level information constructed from the WIC Participant Characteristics (WIC PC) 2012 file to compare responding and nonresponding WIC BPI agencies. Since data was collected in two field periods, we calculated weights for agencies responding to Part 1, agencies responding to Part 2, and agencies responding to both Parts 1 and 2.²⁷ The Part 1 weight was used for analysis of Part 1 data only, including analysis of WIC PC data that was linked to WIC BPI data, and the Part 2 weight was used for analysis of Part 2 data only. The Part 1 and 2 weight was not used in this report.

The first stage of the weighting process was to determine WIC BPI survey nonresponse weights at the agency level. We used three weight classes for the State agencies, based on whether the agency level was classified in the data as State, territory, or Indian Tribal Organization. For the local agencies, we created weight classes based on the seven FNS regions and the total number of participants in each agency (defined as a three-category variable²⁸), to form a total of 18 weight classes. For weighting purposes only, we imputed the total number of participants for 26 local agencies missing WIC PC data, using the mean number of participants per agency in the FNS region

²⁷ For the linked Part 1 and 2 weights, an agency was classified as complete if it was complete for both Part 1 and Part 2, it was classified as ineligible if it was ineligible for either Part 1 or Part 2, and any remaining agencies were classified as noncomplete.

²⁸ For the majority of FNS regions, the total number of participants was separated into three categories: less than 1000 participants, 1,000 to less than 3,000 participants, and at least 3,000 participants.

in which the agency was located. There were no ineligible State agencies, so all noncomplete state agencies were considered eligible. We classified noncomplete local agencies as having undetermined eligibility. All noncomplete agencies, State or local, were assigned zero weight.²⁹ After using the ineligible local agencies in the weighting adjustments, we set their weights to zero as well, which left the nonresponse-adjusted completes as our best representation of the eligible agencies in the WIC BPI study population at the start of the first field period.

Within each weight class, the nonresponse weight equals the total number of agencies divided by the sum of the number of responders and ineligibles. The weighting process is depicted in Exhibit A.1, where the weighting adjustment for a WIC BPI respondent within each weight class is equal to $(X+Y+Z) / (X+Y)$. The adjustment factors for each weight class are presented in Exhibits A.2 through A.7, with separate tables for State and local agencies and for Part 1 weights, Part 2 weights, and Part 1 and 2 weights.

Exhibit A.1. WIC BPI Agency-Level Weight Adjustment in Weighting Cell “j”

Number of WIC BPI Respondents in Weighting Cell j	X_j
Number of WIC BPI Ineligibles in Weighting Cell j	Y_j
Number of WIC BPI Nonrespondents in Weighting Cell j	Z_j
Total Number of Agencies in WIC BPI Frame in Weighting Cell j	$X_j+Y_j+Z_j$

Source: WIC Breastfeeding Policy Inventory Study.

Exhibit A.2. WIC BPI Weight Adjustments for State Agency Part 1 Weights

Weight Class	Number of Agencies			Weight Adjustment
	Complete	Noncomplete	Ineligible	
State	51	0	0	1.0000
ITO	32	2	0	1.0625
Territory	4	1	0	1.2500

²⁹ These were coded as missing values in the final dataset.

Exhibit A.3. WIC BPI Weight Adjustments for Local Agency Part 1 Weights

Weight Class	Number of Agencies			Weight Adjustment
	Complete	Noncomplete	Ineligible	
FNS region 1, # participants < 2000	39	1	0	1.0256
FNS region 1, # participants >= 2000	128	7	0	1.0547
FNS region 2	102	4	3	1.0381
FNS region 3, # participants < 1000	43	0	1	1.0000
FNS region 3, # participants 1000 to < 3000	64	0	2	1.0000
FNS region 3, # participants >= 3000	139	5	0	1.0360
FNS region 4, # participants < 1000	146	6	9	1.0387
FNS region 4, # participants 1000 to < 3000	138	8	3	1.0567
FNS region 4, # participants >= 3000	107	6	2	1.0550
FNS region 5, # participants < 1000	44	4	2	1.0870
FNS region 5, # participants 1000 to < 3000	44	8	2	1.1739
FNS region 5, # participants >= 3000	64	2	6	1.0286
FNS region 6, # participants < 1000	228	14	1	1.0611
FNS region 6, # participants 1000 to < 3000	87	4	0	1.0460
FNS region 6, # participants >= 3000	50	0	0	1.0000
FNS region 7, # participants < 1000	62	11	0	1.1774
FNS region 7, # participants 1000 to < 3000	52	7	0	1.1346
FNS region 7, # participants >= 3000	121	6	0	1.0496

Exhibit A.4. WIC BPI Weight Adjustments for State Agency Part 2 Weights

Weight Class	Number of Agencies			Weight Adjustment
	Complete	Noncomplete	Ineligible	
State	51	0	0	1.0000
ITO	29	5	0	1.1724
Territory	4	1	0	1.2500

Exhibit A.5. WIC BPI Weight Adjustments for Local Agency Part 2 Weights

Weight Class	Number of Agencies			Weight Adjustment
	Complete	Noncomplete	Ineligible	
FNS region 1, # participants < 2000	37	3	0	1.0811
FNS region 1, # participants >= 2000	126	8	1	1.0630
FNS region 2	102	4	3	1.0381
FNS region 3, # participants < 1000	42	1	1	1.0233
FNS region 3, # participants 1000 to < 3000	62	2	2	1.0313
FNS region 3, # participants >= 3000	131	9	4	1.0667
FNS region 4, # participants < 1000	146	6	9	1.0387
FNS region 4, # participants 1000 to < 3000	138	8	3	1.0567
FNS region 4, # participants >= 3000	108	5	2	1.0455
FNS region 5, # participants < 1000	42	6	2	1.1364
FNS region 5, # participants 1000 to < 3000	45	6	3	1.1250
FNS region 5, # participants >= 3000	62	4	6	1.0588
FNS region 6, # participants < 1000	226	16	1	1.0705
FNS region 6, # participants 1000 to < 3000	85	6	0	1.0706
FNS region 6, # participants >= 3000	48	2	0	1.0417
FNS region 7, # participants < 1000	61	11	1	1.1774
FNS region 7, # participants 1000 to < 3000	51	7	1	1.1346
FNS region 7, # participants >= 3000	121	5	1	1.0410

Exhibit A.6. WIC BPI Weight Adjustments for State Agency Part 1 and 2 Weights

Weight Class	Number of Agencies			Weight Adjustment
	Complete	Noncomplete	Ineligible	
State	51	0	0	1.0000
ITO	28	6	0	1.2143
Territory	3	2	0	1.6667

Exhibit A.7. WIC BPI Weight Adjustments for Local Agency Part 1 and 2 Weights

Weight Class	Number of Agencies			Weight Adjustment
	Complete	Noncomplete	Ineligible	
FNS region 1, # participants < 2000	36	4	0	1.1111
FNS region 1, # participants >= 2000	123	11	1	1.0887
FNS region 2	99	7	3	1.0686
FNS region 3, # participants < 1000	42	1	1	1.0233
FNS region 3, # participants 1000 to < 3000	62	2	2	1.0313
FNS region 3, # participants >= 3000	128	12	4	1.0909
FNS region 4, # participants < 1000	142	10	9	1.0662
FNS region 4, # participants 1000 to < 3000	134	12	3	1.0876
FNS region 4, # participants >= 3000	103	10	2	1.0952
FNS region 5, # participants < 1000	40	8	2	1.1905
FNS region 5, # participants 1000 to < 3000	41	10	3	1.2273
FNS region 5, # participants >= 3000	62	4	6	1.0588
FNS region 6, # participants < 1000	220	22	1	1.0995
FNS region 6, # participants 1000 to < 3000	82	9	0	1.1098
FNS region 6, # participants >= 3000	48	2	0	1.0417
FNS region 7, # participants < 1000	55	17	1	1.3036
FNS region 7, # participants 1000 to < 3000	47	11	1	1.2292
FNS region 7, # participants >= 3000	116	10	1	1.0855

1. Participant-Level Weighting

In addition to the construction of the WIC BPI survey weights described above, we constructed another set of weights to reflect participants at the local agency level, using data from the WIC PC 2012 file. Whereas the WIC BPI agency-level weights allow one to estimate, for example, the percentage of agencies that have a peer counseling program, the WIC BPI participant-level weights allow one to estimate the percentage of WIC participants that receive services from an agency that has a peer counseling program. As with the WIC BPI weights, this was done separately for State and local agencies, and for agencies that responded to Part 1, agencies that responded to Part 2, and agencies that responded to both Parts 1 and 2. A visual representation of the categories referenced in the weighting description below is shown in Exhibit A.8, which classifies agencies based on their presence on the BPI sampling frame and on the PC file.

Exhibit A.8. WIC BPI Participant-Level Weight Adjustment in Weighting Cell “j”

	On PC file	Not on PC file	Total
Number of WIC BPI Respondents in Weighting Cell j	A_j	B_j	$X_j = A_j + B_j$
Number of WIC BPI Ineligibles in Weighting Cell j	C_j	D_j	$Y_j = C_j + D_j$
Number of WIC BPI Nonrespondents in Weighting Cell j	E_j	F_j	$Z_j = E_j + F_j$
Number of Agencies in WIC PC That Were Not on WIC BPI Frame in Weighting Cell j	G_j		G_j
Total Number of Agencies	$A_j + C_j + E_j + G_j$	$B_j + D_j + F_j$	

Source: WIC Breastfeeding Policy Inventory Study.

We created the participant-level weights by starting with the WIC BPI agency-level weights, which already account for WIC BPI survey nonresponse and eligibility ($X = A+B$). We did not include the WIC BPI ineligible (C and D) and nonrespondents (E and F) in the participant-level weighting steps because they were already accounted for in the WIC BPI weights. We then excluded from the weighting process those WIC BPI respondents (i.e., agencies) not on the WIC PC file (B), essentially treating them as ineligible because they most likely represent new agencies that did not exist in 2012 at the time of the WIC PC data collection. Next, there was an adjustment made for any WIC PC agencies that were not on the WIC BPI frame (G), as these agencies were treated as “nonrespondents” in this weighting adjustment. Thus, the nonresponse adjustment equals the number of WIC PC agencies (WIC BPI respondents on the WIC PC file plus WIC PC file agencies missing from the WIC BPI frame) divided by the number WIC BPI respondents on the WIC PC file: $(A+G)/A$. The adjustment factors for each weight class are presented in Exhibits A.9 through A.14, with separate tables for State and local agencies and for Part 1 weights, Part 2 weights, and Part 1 and 2 weights.

The same State agencies were on both the WIC BPI frame and the WIC PC file. Thus, there were no agencies denoted “B” in Exhibit A.2 to drop from the file before weighting, and there were no agencies denoted “G” on the file to be adjusted for. Therefore, the nonresponse weighting adjustment applied to the state agencies was equal to 1.

For the local agencies, weighting classes for the nonresponse adjustments were based on FNS region and two variables characterizing the race of WIC participants that appeared to be related to the likelihood of being on the WIC BPI frame: percent of agency participants who are White and percent of agency participants who are Indian (Native American). We created two initial indicator variables from these race variables: *majoritywhite*, which equaled 1 if more than half of the participants were white and 0 otherwise, and *anyindian*, which equaled 1 if more than 3% of the participants were Indian and 0 otherwise. These two variables were then combined into a single variable called *whiteindian*, which had four categories: *majoritywhite* = 1 and *anyindian* = 1, *majoritywhite* = 0 and *anyindian* = 1, *majoritywhite* = 1 and *anyindian* = 0, and *majoritywhite* = 0 and *anyindian* = 0. Within each FNS region, each category of *whiteindian* represented a different weight class, although we collapsed some categories when the count of respondents was too low.³⁰ In total, there were 19 weight classes for the local agencies.

³⁰ In one instance, we combined the same *whiteindian* category into a single weight class for three different FNS regions. Otherwise, we combined two *whiteindian* categories in the same FNS region into a single weight class.

For both State and local agencies, after the nonresponse adjustment, we applied a factor to the adjusted weights equal to the number of participants in each agency from the WIC PC file. Finally, we applied a ratio adjustment to the participant-level weights so that all six WIC PC weights summed to the total number of WIC participants in the WIC PC file.

Exhibit A.9. WIC PC Weight Adjustments for State Agency Part 1 Weights

Weight Class	Number of Agencies		Weight Adjustment
	On WIC BPI Frame and WIC PC File	Missing from BPI Frame, but on WIC PC File	
State	51	0	1
ITO	32	0	1
Territory	4	0	1

Exhibit A.10. WIC PC Weight Adjustments for Local Agencies Part 1 Weights

Weight Class	Number of Agencies		Weight Adjustment
	On WIC BPI Frame and WIC PC File	Missing from BPI Frame, but on WIC PC File	
FNS region 1, majority white = 0, anyindian = 0	20	1	1.0500
FNS region 1, majority white = 0, anyindian = 1	26	8	1.3077
FNS region 1, majority white = 1	112	5	1.0446
FNS region 2, majority white = 0, anyindian = 0	25	1	1.0400
FNS region 2,3,5, majority white = 0, anyindian = 1	19	23	2.2105
FNS region 2, majority white = 1	73	1	1.0137
FNS region 3, majority white = 0, anyindian = 0	47	10	1.2128
FNS region 3, majority white = 1	183	4	1.0219
FNS region 4, majority white = 0	37	1	1.0270
FNS region 4, majority white = 1, anyindian = 0	320	4	1.0125
FNS region 4, majority white = 1, anyindian = 1	29	0	1.0000
FNS region 5, majority white = 0, anyindian = 0	44	2	1.0455
FNS region 5, majority white = 1	101	7	1.0693
FNS region 6, majority white = 0	33	12	1.3636
FNS region 6, majority white = 1, anyindian = 0	237	2	1.0084
FNS region 6, majority white = 1, anyindian = 1	94	1	1.0106
FNS region 7, majority white = 0	84	16	1.1905
FNS region 7, majority white = 1, anyindian = 0	75	1	1.0133
FNS region 7, majority white = 1, anyindian = 1	75	4	1.0533

Exhibit A.11. WIC PC Weight Adjustments for State Agencies Part 2 Weights

Weight Class	Number of Agencies		Weight Adjustment
	On WIC BPI Frame and WIC PC File	Missing from BPI Frame, but on WIC PC File	
State	51	0	1
ITO	29	0	1
Territory	4	0	1

Exhibit A.12. WIC PC Weight Adjustments for Local Agency Part 2 Weights

Weight Class	Number of Agencies		Weight Adjustment
	On WIC BPI Frame and WIC PC File	Missing from BPI Frame, but on WIC PC File	
FNS region 1, majority white = 0, anyindian = 0	20	1	1.0500
FNS region 1, majority white = 0, anyindian = 1	24	8	1.3333
FNS region 1, majority white = 1	111	5	1.0450
FNS region 2, majority white = 0, anyindian = 0	27	1	1.0370
FNS region 2,3,5, majority white = 0, anyindian = 1	18	23	2.2778
FNS region 2, majority white = 1	71	1	1.0141
FNS region 3, majority white = 0, anyindian = 0	43	10	1.2326
FNS region 3, majority white = 1	177	4	1.0226
FNS region 4, majority white = 0	38	1	1.0263
FNS region 4, majority white = 1, anyindian = 0	320	4	1.0125
FNS region 4, majority white = 1, anyindian = 1	29	0	1.0000
FNS region 5, majority white = 0, anyindian = 0	43	2	1.0465
FNS region 5, majority white = 1	100	7	1.0700
FNS region 6, majority white = 0	33	12	1.3636
FNS region 6, majority white = 1, anyindian = 0	231	2	1.0087
FNS region 6, majority white = 1, anyindian = 1	94	1	1.0106
FNS region 7, majority white = 0	82	16	1.1951
FNS region 7, majority white = 1, anyindian = 0	73	1	1.0137
FNS region 7, majority white = 1, anyindian = 1	76	4	1.0526

Exhibit A.13. WIC PC Weight Adjustments for State Agency Parts 1 and 2 Weights

Weight Class	Number of Agencies		Weight adjustment
	On WIC BPI Frame and WIC PC File	Missing from BPI Frame, but on WIC PC File	
State	51	0	1
ITO	28	0	1
Territory	3	0	1

Exhibit A.14. WIC PC Weights Adjustments for Local Agency Parts 1 and 2 Weights

Weight Class	Number of Agencies		Weight Adjustment
	On WIC BPI Frame and WIC PC File	Missing from BPI Frame, but on WIC PC File	
FNS region 1, majority white = 0, anyindian = 0	19	1	1.0526
FNS region 1, majority white = 0, anyindian = 1	24	8	1.3333
FNS region 1, majority white = 1	108	5	1.0463
FNS region 2, majority white = 0, anyindian = 0	25	1	1.0400
FNS region 2,3,5, majority white = 0, anyindian = 1	18	23	2.2778
FNS region 2, majority white = 1	70	1	1.0143
FNS region 3, majority white = 0, anyindian = 0	42	10	1.2381
FNS region 3, majority white = 1	175	4	1.0229
FNS region 4, majority white = 0	35	1	1.0286
FNS region 4, majority white = 1, anyindian = 0	310	4	1.0129
FNS region 4, majority white = 1, anyindian = 1	29	0	1.0000
FNS region 5, majority white = 0, anyindian = 0	41	2	1.0488
FNS region 5, majority white = 1	96	7	1.0729
FNS region 6, majority white = 0	31	12	1.3871
FNS region 6, majority white = 1, anyindian = 0	229	2	1.0087
FNS region 6, majority white = 1, anyindian = 1	89	1	1.0112
FNS region 7, majority white = 0	76	16	1.2105
FNS region 7, majority white = 1, anyindian = 0	71	1	1.0141
FNS region 7, majority white = 1, anyindian = 1	71	4	1.0563

APPENDIX B
BREASTFEEDING POLICIES AND PRACTICES
SUPPLEMENTARY EXHIBITS

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Exhibit B.1. State WIC Agencies with Breastfeeding Promotion Policies that Exceed Federal Requirements (Percentages)

	State Agencies
Staff Training ($n_{SA} = 85$)	37.1
Participant Breastfeeding Education ($n_{SA} = 86$)	24.3
Peer Counseling ($n_{SA} = 86$)	26.4
Prenatal Participant Contact ($n_{SA} = 85$)	23.5
Postpartum Participant Contact ($n_{SA} = 85$)	22.3
Breastfeeding Aids ($n_{SA} = 85$)	31.3
Food Package Issuance ($n_{SA} = 86$)	16.3
Breastfeeding Referrals and Coordination ($n_{SA} = 86$)	30.0
Outreach Activities ($n_{SA} = 85$)	21.3
The Clinic Environment ($n_{SA} = 86$)	21.9

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$). All tabulations are weighted to account for agency nonresponse.

Exhibit B.2. Number of Breastfeeding Promotion Policies that Exceed Federal Requirements, by State

	Number of Policies
Alaska	0
Alabama	0
Arizona	3
Arkansas	1
California	4
Colorado	2
Connecticut	0
Delaware	0
Florida	5
Georgia	7
Hawaii	2
Idaho	7
Illinois	0
Indiana	3
Iowa	1
Kansas	0
Kentucky	0
Louisiana	4
Maine	2
Maryland	0
Massachusetts	6
Michigan	2
Minnesota	.
Mississippi	0
Missouri	7
Montana	0
Nebraska	0
Nevada	0
New Hampshire	4
New Jersey	2
New Mexico	4
New York	5
North Carolina	5
North Dakota	0
Ohio	6
Oklahoma	8
Oregon	2
Pennsylvania	2
Rhode Island	7
South Carolina	1
South Dakota	1
Tennessee	3
Texas	6
Utah	0
Vermont	0
Virginia	5
Washington	5
West Virginia	0
Wisconsin	0
Wyoming	0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 50$). All tabulations are weighted to account for agency nonresponse.

Exhibit B.3. Local WIC Agencies with Breastfeeding Procedures Written in a Formal Policy (Percentages)

	Local Agencies
New Employee Breastfeeding Training ($n_{LA} = 1,649$)	67.2
Ongoing Staff Breastfeeding Training ($n_{LA} = 1,650$)	56.8
Participant Breastfeeding Education ($n_{LA} = 1,652$)	57.7
Peer Counseling ($n_{LA} = 1,651$)	56.1
Prenatal Participant Contact ($n_{LA} = 1,654$)	61.2
Postpartum Participant Contact ($n_{LA} = 1,651$)	58.0
Breastfeeding Aids ($n_{LA} = 1,653$)	76.2
Food Package Issuance ($n_{LA} = 1,653$)	73.9
Coordination and Referrals ($n_{LA} = 1,647$)	54.8
Outreach ($n_{LA} = 1,652$)	45.0
Staff Interactions ($n_{LA} = 1,651$)	57.4
Clinic Features ($n_{LA} = 1,647$)	48.9

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Exhibit B.4. Participants at Local WIC Agencies with Specific Breastfeeding Procedures Written in a Formal Policy (Percentages)

	Participants
New Employee Breastfeeding Training ($n_{LA} = 1,625$)	74.8
Ongoing Staff Breastfeeding Training ($n_{LA} = 1,626$)	67.0
Participant Breastfeeding Education ($n_{LA} = 1,628$)	67.6
Peer Counseling ($n_{LA} = 1,627$)	74.2
Prenatal Participant Contact ($n_{LA} = 1,630$)	73.9
Postpartum Participant Contact ($n_{LA} = 1,627$)	69.6
Breastfeeding Aids ($n_{LA} = 1,629$)	84.3
Food Package Issuance ($n_{LA} = 1,629$)	77.8
Coordination and Referrals ($n_{LA} = 1,623$)	63.8
Outreach ($n_{LA} = 1,628$)	51.6
Staff Interactions ($n_{LA} = 1,627$)	61.7
Clinic Features ($n_{LA} = 1,623$)	52.4

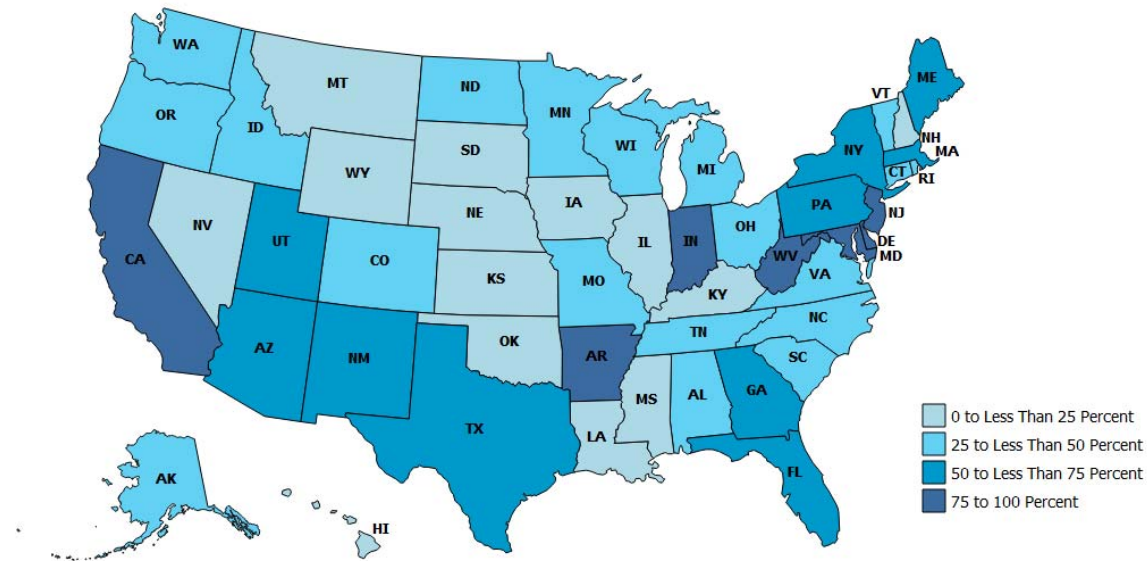
Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

Exhibit B.5. Breastfeeding Credentials Held by at Least One WIC Agency Staff Member (Percentages)

	Direct-Service State Agencies	Local Agencies
Breastfeeding Credential Held by at Least One Staff Member (n _{SA} = 39; n _{LA} = 1,647)		
International Board Certified Lactation Consultant	37.4	38.0
Certified Lactation Educator	17.7	20.6
Certified Lactation Counselor	38.3	49.8
Other certification in lactation management	23.8	16.3
Certified Lactation Specialist	2.4	8.5
None of these	17.9	21.5

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 41; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

Exhibit B.6. Proportion of Local WIC Agencies with an International Board Certified Lactation Consultant, by State



Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 2; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.7.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.7. Proportion of Local WIC Agencies with an International Board Certified Lactation Consultant, by State (Percentages)

	Local Agencies
Alaska	40.7
Alabama	36.4
Arizona	73.0
Arkansas	100.0
California	82.8
Colorado	29.2
Connecticut	27.3
Delaware	100.0
Florida	69.9
Georgia	66.7
Hawaii	12.7
Idaho	42.9
Illinois	18.5
Indiana	76.3
Iowa	4.9
Kansas	17.7
Kentucky	15.4
Louisiana	10.0
Maine	62.7
Maryland	76.5
Massachusetts	51.6
Michigan	42.5
Minnesota	26.4
Mississippi	11.1
Missouri	29.9
Montana	23.7
Nebraska	22.8
Nevada	19.4
New Hampshire	20.0
New Jersey	100.0
New Mexico	53.3
New York	54.1
North Carolina	26.3
North Dakota	26.0
Ohio	48.7
Oklahoma	21.7
Oregon	45.6
Pennsylvania	54.2
Rhode Island	44.7
South Carolina	25.1
South Dakota	0.0
Tennessee	38.5
Texas	63.2
Utah	54.5
Vermont	41.8
Virginia	25.8
Washington	41.5
West Virginia	75.0
Wisconsin	26.2
Wyoming	5.6

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.8. Participants at Local WIC Agencies with Breastfeeding Promotion Training for New Hires (Percentages)

	Participants
Staff Who Receive Breastfeeding Promotion Training as New Hires ($n_{LA} = 1,620$)^a	
Clerical or support staff	78.1
Competent Professional Authorities	90.7
Peer counselors ^b	98.6
WIC designated breastfeeding experts	73.6
Breastfeeding coordinators	87.1
Nutritionists	94.8
All of the above applicable staff	58.3
All of the above applicable staff except WIC designated breastfeeding experts	68.2
Developer of New Hire Breastfeeding Promotion Training ($n_{LA} = 1,615$)^a	
A local WIC agency	46.4
A State WIC agency	62.4
USDA, Food and Nutrition Service	69.5
Breastfeeding support organization	6.3
Education or public health institution	6.0
Vendor	1.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

^bAmong agencies that operate a peer counseling program.

USDA = United States Department of Agriculture.

Exhibit B.9. Participants at Local WIC Agencies with Ongoing Breastfeeding Promotion Training (Percentages)

	Participants
Staff Who Receive Ongoing Breastfeeding Promotion Training ($n_{LA} = 1,631$) ^a	
Clerical or support staff	73.1
Competent Professional Authorities	88.2
Peer counselors ^b	98.9
WIC designated breastfeeding experts	78.3
Breastfeeding coordinators	95.9
Nutritionists	93.9
None of these	0.2
Staff Are Trained on Using Food Packages to Promote Breastfeeding ($n_{LA} = 1,632$)	98.4
Staff Are Trained on Using Food Packages to Promote Exclusive Breastfeeding ($n_{LA} = 1,574$)	95.3
Developer of Ongoing Breastfeeding Promotion Training ($n_{LA} = 1,619$) ^a	
A local WIC agency	61.8
A State WIC agency	62.4
USDA, Food and Nutrition Service	61.9
Breastfeeding support organization	22.9
Education or public health institution	17.4
Vendor	9.7

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

USDA = United States Department of Agriculture.

Exhibit B.10. Participants at Local WIC Agencies with Specific Breastfeeding Promotion and Outreach Practices (Percentages)

	Participants
Planned or Participated in Breastfeeding Promotion/Outreach in Past Year ($n_{LA} = 1,628$) ^a	
Social marketing campaign	24.0
World Breastfeeding Week event	87.5
Community health fair	80.1
Peer counseling program promotion in the community ^b	64.6
Other	24.8
None of these	2.9
Outreach or Collaboration with Other Organizations to Promote Breastfeeding ($n_{LA} = 1,625$) ^a	
Hospitals, clinics, or doctors' offices	95.4
Worksites	52.4
Child care facilities	50.5
Faith based organizations	41.0
Schools	52.1
<i>Among Agencies with Outreach or Collaboration with Other Organizations:</i>	
Memorandum of Understanding in Place	
Hospitals, clinics, or doctors' offices ($n_{LA} = 1,436$)	37.2
Worksites ($n_{LA} = 579$)	10.2
Child care facilities ($n_{LA} = 594$)	13.7
Faith based organizations ($n_{LA} = 336$)	10.7
Schools ($n_{LA} = 517$)	23.7
Local Agency Staff Outreach to Hospitals	
Teach in-hospital prenatal classes ($n_{LA} = 579$) ^a	10.8
Provide in-hospital breastfeeding support ($n_{LA} = 594$) ^a	38.6

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

Note: We defined *social marketing* as application of commercial marketing strategies to promote positive health behaviors.

^aMultiple answers allowed.

^bAmong agencies that operate a peer counseling program.

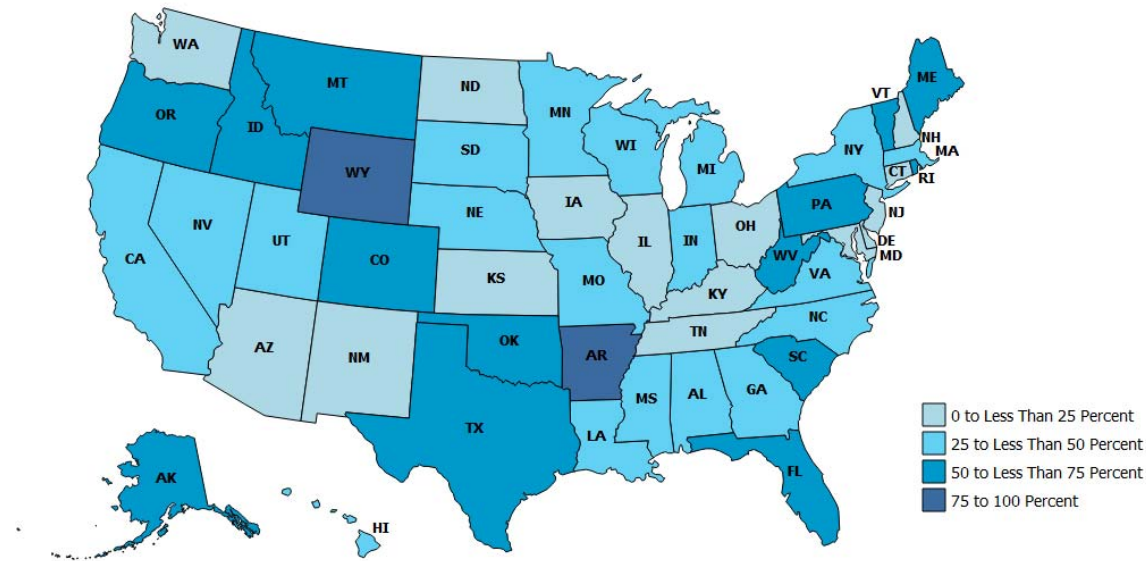
Exhibit B.11. WIC Agencies' Outreach and Collaboration with Other Organizations (Percentages)

	State Agencies	Local Agencies
Outreach or Collaboration with Other Organizations to Promote Breastfeeding (n _{SA} = 87; n _{LA} = 1,649) ^a		
Hospitals, clinics, or doctors' offices	88.5	88.7
Worksites	66.9	40.0
Child care facilities	61.8	40.3
Faith based organizations	41.9	23.8
Schools	48.3	35.7
<i>Among Agencies with Outreach or Collaboration with Other Organizations:</i>		
Memorandum of Understanding in Place		
Hospitals, clinics, or doctors' offices (n _{SA} = 75; n _{LA} = 1,459)	33.9	30.6
Worksites (n _{SA} = 53; n _{LA} = 585)	15.5	18.0
Child care facilities (n _{SA} = 49; n _{LA} = 599)	23.4	18.7
Faith based organizations (n _{SA} = 29; n _{LA} = 338)	3.4	14.7
Schools (n _{SA} = 34; n _{LA} = 521)	14.8	16.5

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 87; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

Exhibit B.12. Proportion of Local WIC Agencies Reporting Outreach to Worksites, by State



Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 2; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.13.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.13. Proportion of Local WIC Agencies Reporting Outreach to Worksites, by State (Percentages)

	Local Agencies
Alaska	58.3
Alabama	20.0
Arizona	33.3
Arkansas	100.0
California	45.0
Colorado	50.0
Connecticut	10.0
Delaware	0.0
Florida	41.9
Georgia	68.8
Hawaii	31.0
Idaho	45.5
Illinois	33.4
Indiana	29.7
Iowa	60.4
Kansas	34.1
Kentucky	36.0
Louisiana	34.7
Maine	66.5
Maryland	41.2
Massachusetts	32.3
Michigan	33.3
Minnesota	43.8
Mississippi	50.0
Missouri	35.7
Montana	45.0
Nebraska	33.3
Nevada	38.7
New Hampshire	0.0
New Jersey	13.3
New Mexico	100.0
New York	34.5
North Carolina	39.4
North Dakota	50.0
Ohio	39.1
Oklahoma	48.6
Oregon	70.9
Pennsylvania	50.0
Rhode Island	12.6
South Carolina	57.4
South Dakota	24.5
Tennessee	46.2
Texas	56.8
Utah	40.1
Vermont	100.0
Virginia	29.2
Washington	39.2
West Virginia	50.0
Wisconsin	41.9
Wyoming	5.6

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.14. Participants at Local WIC Agencies with Specific Breastfeeding Aids Provision Practices (Percentages)

	Participants
<hr/>	
Aids Made Available to Participants (n _{LA} = 1,632) ^a	
Breast pumps	99.8
Breast shells	59.4
Nipple shields	70.8
Nursing supplementers	61.5
Breast milk storage bags	36.2
Allowable Aids Maintained on an Approved List (n _{LA} = 1,513) ^b	86.0

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,634) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

Note: We defined *breastfeeding aids* as items which directly support the initiation and continuation of breastfeeding; allowable breastfeeding aids can be purchased with federal funds. Nursing supplementers consist of a container and tubing. The tubing is attached at the breast to supplement the breast milk supply during feeding.

^aMultiple answers allowed.

^bAmong local agencies that make breastfeeding aids available.

Exhibit B.15. Participants at Local WIC Agencies that Distribute Breast Pumps, by Specific Breast Pump Issuance Practices (Percentages)

	Participants
Pump Types Distributed	
Manual ($n_{LA} = 1,600$)	
Loans	2.5
Gives	96.1
Pedal ($n_{LA} = 1,541$)	
Loans	35.8
Gives	6.7
Single-user electric ($n_{LA} = 1,584$)	
Loans	6.3
Gives	79.7
Multi-user electric/hospital grade ($n_{LA} = 1,588$)	
Loans	93.6
Gives	2.1
<i>Among agencies that distribute more than one pump type:</i>	
Pump type distributed most often ($n_{LA} = 1,523$)	
Manual	53.2
Pedal	0.4
Single-user electric	12.7
Multi-user electric/hospital grade	33.7
Issuance Conditions for Most Common Pump Type ($n_{LA} = 1,604$) ^a	
Mothers request one	27.1
Mothers certified as fully and partially breastfeeding	43.7
Mothers certified as fully breastfeeding only	20.1
Mothers committed to exclusive breastfeeding for a minimum duration	17.7
Mothers returning to work or school	71.2
Mother/infant separation (other than work or school)	72.1
Mother/infant feeding problem	70.5
Other	15.5
Other Issuance Policies or Practices	
Breast pump training may count as a nutrition education contact ($n_{LA} = 1,593$)	50.2
Participants are required to complete breast pump training ($n_{LA} = 1,596$)	80.7
Clinic staff must follow up with participants who have been issued a breast pump ($n_{LA} = 1,599$)	90.4
Breast pumps may be issued to a participant proxy ($n_{LA} = 1,594$)	61.7
Participants may be required to make a deposit before a breast pump is issued ($n_{LA} = 1,586$)	3.4
Participants may purchase a breast pump at a price below retail ($n_{LA} = 1,585$)	2.7
Third parties are contracted to issue breast pumps to WIC participants ($n_{LA} = 1,583$)	11.6
<i>Among Agencies Charging a Deposit:</i>	
Amount Charged for Deposit (Dollars) ($n_{LA} = 123$)	
Amount charged less than or equal to the median	67.6
Amount charged greater than the median	32.4

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

Exhibit B.16. Proportion of Local WIC Agencies That Issued Formula to Fully Breastfeeding Participants in the First Month Postpartum at Participants' Request Only When Prescribed or Not at All, by State (Percentages)

	Local Agencies
Alaska	50.0
Alabama	27.3
Arizona	21.3
Arkansas	100.0
California	29.2
Colorado	59.3
Connecticut	8.9
Delaware	0.0
Florida	51.2
Georgia	33.3
Hawaii	40.4
Idaho	67.0
Illinois	24.7
Indiana	26.2
Iowa	9.8
Kansas	24.3
Kentucky	18.7
Louisiana	25.2
Maine	62.4
Maryland	23.5
Massachusetts	32.3
Michigan	36.2
Minnesota	25.1
Mississippi	33.3
Missouri	33.4
Montana	51.9
Nebraska	46.2
Nevada	25.7
New Hampshire	0.0
New Jersey	23.5
New Mexico	0.0
New York	30.7
North Carolina	27.0
North Dakota	16.1
Ohio	22.2
Oklahoma	61.0
Oregon	59.1
Pennsylvania	66.7
Rhode Island	55.0
South Carolina	74.9
South Dakota	33.4
Tennessee	23.1
Texas	50.7
Utah	44.8
Vermont	74.8
Virginia	31.3
Washington	18.2
West Virginia	50.0
Wisconsin	35.4
Wyoming	83.5

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Formula prescribed by a doctor may include exempt formula and medical foods issued in Food Package III. Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

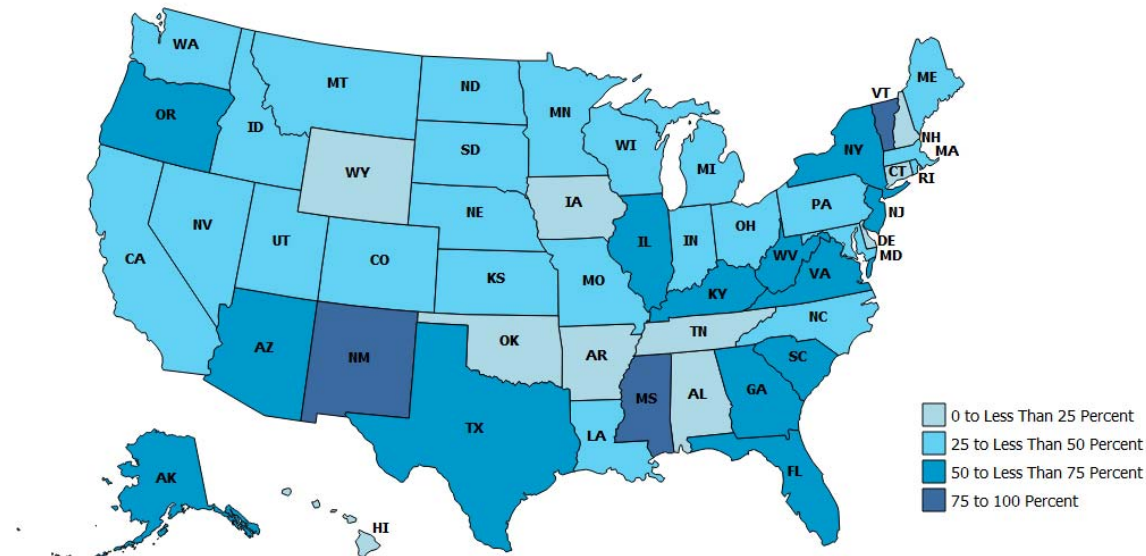
Exhibit B.17. Participants at Local WIC Agencies with Specific Food Package Issuance Practices (Percentages)

	Participants
Circumstances under Which Formula May Be Issued to Fully Breastfeeding Participants in the First Month Postpartum when Participants Request It (n _{LA} = 1,623) ^a	
When a doctor prescribes formula	48.5
When the mother no longer wants to exclusively breastfeed	58.9
Never	26.5
Other	13.8
Steps Clinic Staff Take when a Participant on a Fully Breastfeeding Food Package Requests Formula (n _{LA} = 1,628) ^a	
Formula is issued without any additional steps taken	1.6
Participant receives counseling about benefits of breastfeeding	88.8
Participant receives counseling about changing food packages	89.6
A minimum amount of formula is provided based on assessment	75.6
Other	21.5

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,634) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

Exhibit B.18. Proportion of Local WIC Agencies in Which Prenatal Contacts May Occur in Participants' Homes, Hospitals, or Other Off-Site Locations, by State



Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 2; n_{LA} = 1,658). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.19.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.19. Proportion of Local WIC Agencies in Which Prenatal Contacts May Occur in Participants' Homes, Hospitals, or Other Off-Site Locations, by State (Percentages)

	Local Agencies
Alaska	50.0
Alabama	27.3
Arizona	21.3
Arkansas	100.0
California	29.2
Colorado	59.3
Connecticut	8.9
Delaware	0.0
Florida	51.2
Georgia	33.3
Hawaii	40.4
Idaho	67.0
Illinois	24.7
Indiana	26.2
Iowa	9.8
Kansas	24.3
Kentucky	18.7
Louisiana	25.2
Maine	62.4
Maryland	23.5
Massachusetts	32.3
Michigan	36.2
Minnesota	25.1
Mississippi	33.3
Missouri	33.4
Montana	51.9
Nebraska	46.2
Nevada	25.7
New Hampshire	0.0
New Jersey	23.5
New Mexico	0.0
New York	30.7
North Carolina	27.0
North Dakota	16.1
Ohio	22.2
Oklahoma	61.0
Oregon	59.1
Pennsylvania	66.7
Rhode Island	55.0
South Carolina	74.9
South Dakota	33.4
Tennessee	23.1
Texas	50.7
Utah	44.8
Vermont	74.8
Virginia	31.3
Washington	18.2
West Virginia	50.0
Wisconsin	35.4
Wyoming	83.5

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.20. Frequency of Contact Including Breastfeeding Promotion and Support with Most Pregnant Participants at State WIC Agencies That Directly Provide Services, by Pregnancy Trimester (Percentages)

	Zero Times Per Trimester	Once Per Trimester	Twice Per Trimester	Monthly	More than Once Per Month but Not Weekly	Weekly
First Trimester (n _{SA} =40)	7.8	37.3	17.4	35.1	2.5	0.0
Second Trimester (n _{SA} =41)	0.0	34.8	14.3	48.5	2.4	0.0
Third Trimester (n _{SA} =41)	0.0	25.0	16.7	23.9	24.6	9.7

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 41). All tabulations are weighted to account for agency nonresponse.

Note: Contacts with peer counselors were included among agencies that operate a peer counseling program.

Exhibit B.21. Participants at Local Agencies with Specific Postpartum WIC Participant Contact Practices (Percentages)

	Participants
Breastfeeding Promotion Practices during Postpartum WIC Enrollment ($n_{LA} = 1,633$)^a	
Conduct a breastfeeding assessment	83.6
Give her a breastfeeding promotion kit	28.0
Enroll her in peer counseling program ^b	71.5
Include her in breastfeeding education classes	47.2
Offer her participation in a breastfeeding support group ^c	77.7
Provide individual breastfeeding counseling	98.3
Give her information about the greater quantity and variety of foods in the fully breastfeeding food package	92.0
Other	10.8
Locations where Interactions with Postpartum WIC Participants May Occur ($n_{LA} = 1,632$)^a	
Nutrition education classes	72.5
Breastfeeding support groups	82.2
Participants' homes	29.4
By telephone	94.5
Hospitals	40.8
Other off-site locations	22.0
Who Initiates Contact after a Pregnant Participant Has Given Birth	
Participant notifies agency ($n_{LA} = 1,577$)	95.9
Agency contacts participant around her expected date of delivery ($n_{LA} = 1,454$)	81.0
<i>Among Agencies Making Contact around the Expected Date of Delivery:</i>	
Number of Days around Expected Date of Delivery in Which Contact Is Attempted ($n_{LA} = 922$)	
Number of days less than or equal to the median	73.2
Number of days greater than the median	26.8
Staff Who Contact Participants after Delivery ($n_{LA} = 926$)^a	
Clerical or support staff	13.5
CPAs	26.3
Peer counselors ^b	98.8
WIC designated breastfeeding experts	35.1
Breastfeeding coordinators	21.6
Nutritionists	18.5

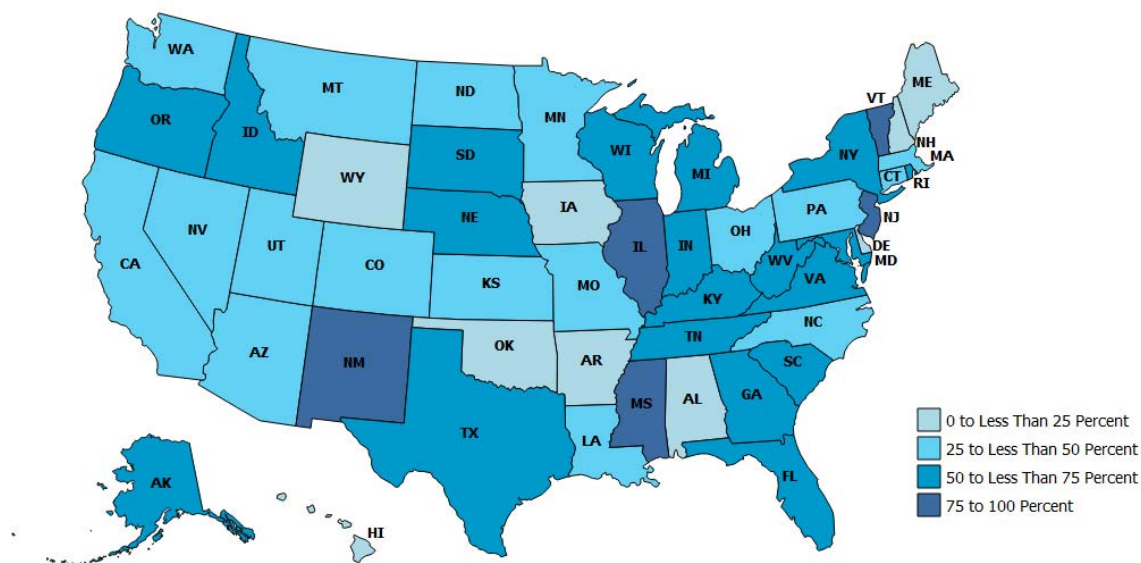
Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,634$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

^bAmong agencies that operate a peer counseling program.

^cAmong agencies that provide breastfeeding support groups.

Exhibit B.22. Proportion of Local WIC Agencies in Which Postpartum Contacts May Occur in Participants' Homes, Hospitals, or Other Off-Site Locations, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.23.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

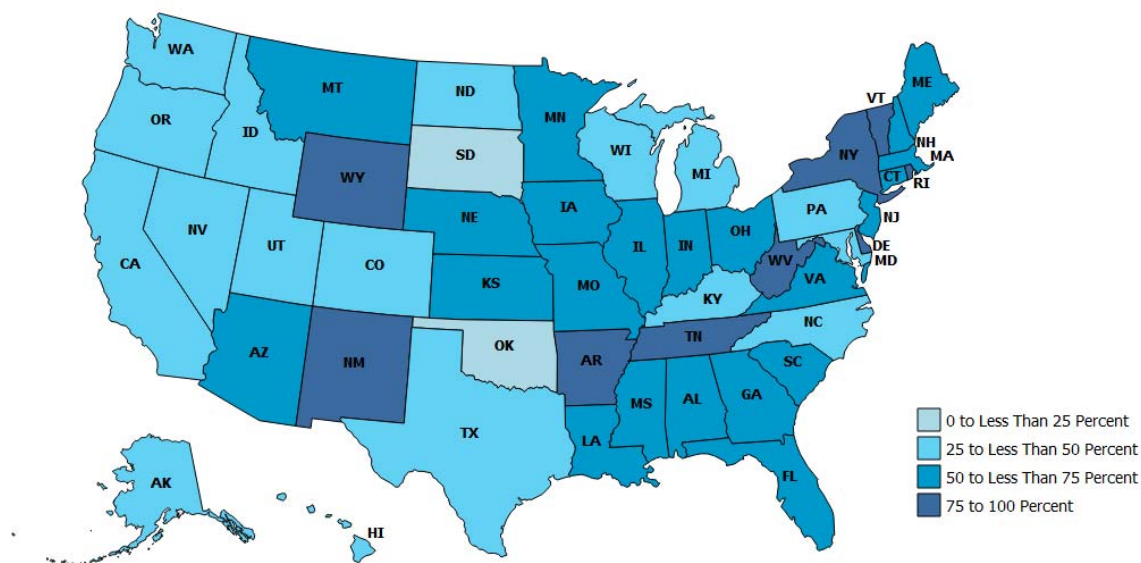
Exhibit B.23. Proportion of Local WIC Agencies in Which Postpartum Contacts May Occur in Participants' Homes, Hospitals, or Other Off-Site Locations, by State (Percentages)

	Local Agencies
Alaska	67.0
Alabama	0.0
Arizona	46.5
Arkansas	0.0
California	47.1
Colorado	46.1
Connecticut	27.3
Delaware	0.0
Florida	55.8
Georgia	72.2
Hawaii	20.6
Idaho	56.2
Illinois	78.4
Indiana	61.9
Iowa	24.9
Kansas	46.9
Kentucky	54.2
Louisiana	37.7
Maine	24.7
Maryland	64.7
Massachusetts	44.2
Michigan	51.1
Minnesota	44.5
Mississippi	100.0
Missouri	33.3
Montana	47.8
Nebraska	54.0
Nevada	32.1
New Hampshire	0.0
New Jersey	82.4
New Mexico	100.0
New York	63.6
North Carolina	48.2
North Dakota	36.1
Ohio	41.7
Oklahoma	7.6
Oregon	50.7
Pennsylvania	37.5
Rhode Island	55.9
South Carolina	74.9
South Dakota	57.4
Tennessee	53.8
Texas	67.1
Utah	36.9
Vermont	75.1
Virginia	71.9
Washington	46.2
West Virginia	62.5
Wisconsin	56.8
Wyoming	11.1

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.24. Proportion of Local WIC Agencies Using FNS-Developed Materials for Participant Breastfeeding Education, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit B.25.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.25. Proportion of Local WIC Agencies Using FNS-Developed Materials for Participant Breastfeeding Education, by State (Percentages)

	Local Agencies
Alaska	41.0
Alabama	63.6
Arizona	51.2
Arkansas	100.0
California	38.9
Colorado	37.9
Connecticut	63.5
Delaware	100.0
Florida	57.2
Georgia	72.2
Hawaii	28.9
Idaho	33.0
Illinois	69.9
Indiana	52.5
Iowa	59.9
Kansas	55.6
Kentucky	28.8
Louisiana	53.9
Maine	50.2
Maryland	41.2
Massachusetts	67.8
Michigan	42.5
Minnesota	56.9
Mississippi	55.6
Missouri	51.4
Montana	51.8
Nebraska	53.8
Nevada	33.6
New Hampshire	60.0
New Jersey	64.7
New Mexico	100.0
New York	75.1
North Carolina	45.9
North Dakota	47.8
Ohio	50.7
Oklahoma	0.0
Oregon	32.0
Pennsylvania	45.8
Rhode Island	77.5
South Carolina	74.9
South Dakota	11.0
Tennessee	92.3
Texas	38.3
Utah	45.8
Vermont	75.1
Virginia	68.8
Washington	42.3
West Virginia	75.0
Wisconsin	44.6
Wyoming	83.3

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.26. Participants at Local WIC Agencies with Specific In-Person Breastfeeding Education Practices (Percentages)

	Participants
Times When Pregnant Participants Receive In-Person Breastfeeding Education ($n_{LA} = 1,622$) ^a	
Whenever participants request it	74.9
At each certification visit	74.4
At each clinic visit	61.8
Twice per certification period	22.8
Quarterly	7.0
Monthly	14.2
Other	15.9
Times When Postpartum Participants Receive In-Person Breastfeeding Education ($n_{LA} = 1,611$) ^a	
Whenever participants request it	83.4
At each certification visit	75.9
At each clinic visit	51.9
Twice per certification period	14.0
Quarterly	4.9
Monthly	14.0
Other	21.5
Techniques Used for In-Person Breastfeeding Education ($n_{LA} = 1,622$) ^a	
Lecture or presentation	58.0
Motivational interviewing ^b	82.2
Cultural tailoring of the content	63.7
Practice or role playing	35.9
Facilitated discussion ^c	85.0
Participants set the agenda	66.1

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,623$) and WIC Participant and Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

^aMultiple answers allowed.

^bAmong agencies with in-person individual sessions for breastfeeding education.

^cAmong agencies with in-person group sessions for breastfeeding education.

Exhibit B.27. Organizations to which WIC Agencies Refer Participants with Breastfeeding Problems (Percentages)

	Direct-Service State Agencies	Local Agencies
Organizations to which Agency Refers Participants with Breastfeeding Problems ($n_{SA} = 41$; $n_{LA} = 1,656$)		
Another WIC agency	7.2	23.6
Lactation professional	55.7	78.3
Breastfeeding support organization	46.5	66.5
Health care provider	73.1	85.7
Breast pump purchase/loan program	2.4	30.6
Non-WIC-operated breastfeeding helpline	31.0	33.1
Home visiting program	19.2	34.4
Participants are not referred outside the agency	14.4	2.4

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 41$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: We defined a *helpline* as a local or toll-free telephone number that is dedicated to providing information on breastfeeding, with staff either answering calls in real time or responding to messages. Helplines are also called hotlines or warmlines and do not include the WIC clinic's telephone number. Multiple answers allowed.

Exhibit B.28. State WIC Agencies' Peer Counseling Programs

	State Agencies
States Agencies That Operate a Peer Counseling Program or Have Local Agencies Operating Peer Counseling Programs ($n_{SA} = 87$)	92.8
<i>Among Direct-Service State Agencies and Operate a Peer Counseling Program or Have Local Agencies Operating Peer Counseling Programs:</i>	
Percentage of Clinic Sites that Operate a Peer Counseling Program in Direct-Service State Agencies ($n_{SA} = 35$)	
Mean percentage	68.6
Median percentage	100.0
Interquartile range for percentage	18-100
Percentage of Local Agencies Operating Peer Counseling Programs within Each State Not Providing Direct Services to Participants ($n_{SA} = 51$)	
Mean percentage	72.5
Median percentage	77.8
Interquartile range for percentage	50-100
Percentage of Pregnant (if Applicable) and Postpartum Participants Enrolled in Peer Counseling in States' Clinic Sites or Local Agencies ($n_{SA} = 72$)	
Mean percentage	53.4
Median percentage	50.0
Interquartile range for percentage	20-90

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$). All tabulations are weighted to account for agency nonresponse.

Note: Data are percentages unless otherwise noted.

Exhibit B.29. Proportion of Local WIC Agencies with a Peer Counseling Program, by State (Percentages)

	Local Agencies
Alaska	41.0
Alabama	100.0
Arizona	56.7
Arkansas	100.0
California	60.2
Colorado	42.4
Connecticut	27.3
Delaware	100.0
Florida	100.0
Georgia	94.4
Hawaii	20.6
Idaho	75.9
Illinois	70.9
Indiana	100.0
Iowa	34.5
Kansas	59.6
Kentucky	32.4
Louisiana	81.9
Maine	75.3
Maryland	76.5
Massachusetts	100.0
Michigan	80.9
Minnesota	29.2
Mississippi	100.0
Missouri	62.2
Montana	47.7
Nebraska	76.9
Nevada	38.9
New Hampshire	100.0
New Jersey	76.5
New Mexico	100.0
New York	100.0
North Carolina	81.2
North Dakota	16.0
Ohio	100.0
Oklahoma	22.5
Oregon	28.5
Pennsylvania	62.5
Rhode Island	100.0
South Carolina	100.0
South Dakota	11.1
Tennessee	100.0
Texas	94.9
Utah	100.0
Vermont	41.8
Virginia	100.0
Washington	61.4
West Virginia	100.0
Wisconsin	83.2
Wyoming	50.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit B.30. Minimum Frequency of Peer Counselor Contact Attempts with Participants at State WIC Agencies That Directly Provide Services and Operate a Peer Counseling Program, by Time Period Relative to Birth (Percentages)

	Weekly	Monthly	Other
Prenatal (n _{SA} = 37)	5.7	69.2	25.1
First Week Postpartum (n _{SA} = 37)	68.7	11.4	19.9
Two to Four Weeks Postpartum (n _{SA} = 37)	65.8	20.0	14.1
Five to 12 Weeks Postpartum (n _{SA} = 35)	8.9	78.9	12.1
Thirteen to 24 Weeks Postpartum (n _{SA} = 32)	3.2	74.3	22.4

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 36). All tabulations are weighted to account for agency nonresponse.

Note: The most common “other” response during the prenatal period was three times (three agencies). The most common “other” response during the first week postpartum was two times (three agencies). The most common “other” response during five to 12 weeks and 13 to 24 weeks postpartum was as requested or needed (three and five agencies, respectively). The “other” responses for two to four weeks postpartum were all unique.

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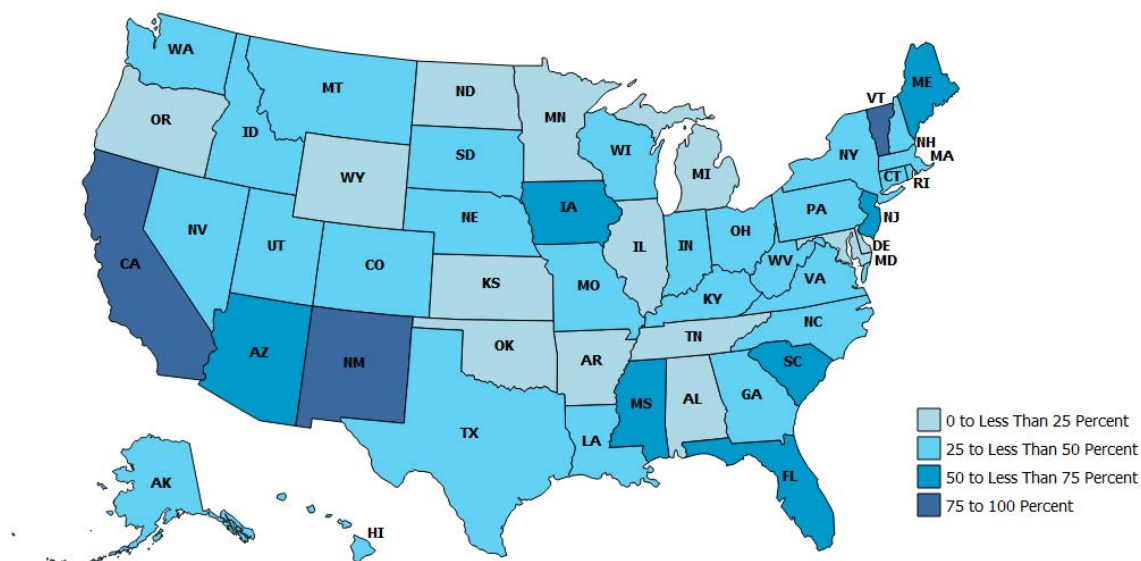
APPENDIX C

BREASTFEEDING DATA SYSTEMS AND REPORTING PRACTICES

SUPPLEMENTARY EXHIBITS

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Exhibit C.1. Proportion of Local WIC Agencies That Store Breastfeeding Information in an Administrative Data System Other Than the WIC Information System, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$; $n_{LA} = 1,658$). Data are tabulated in Appendix Exhibit C.2.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit C.2. Proportion of Local WIC Agencies That Store Breastfeeding Information in an Administrative Data System Other Than the WIC Information System, by State (Percentages)

	Local Agencies
Alaska	39.6
Alabama	9.1
Arizona	57.1
Arkansas	0.0
California	76.4
Colorado	29.1
Connecticut	27.4
Delaware	0.0
Florida	63.4
Georgia	38.9
Hawaii	34.2
Idaho	32.1
Illinois	22.7
Indiana	38.7
Iowa	57.9
Kansas	22.8
Kentucky	47.5
Louisiana	33.9
Maine	50.1
Maryland	16.7
Massachusetts	26.5
Michigan	22.9
Minnesota	23.0
Mississippi	50.0
Missouri	33.6
Montana	37.4
Nebraska	49.9
Nevada	28.2
New Hampshire	25.0
New Jersey	52.9
New Mexico	100.0
New York	40.7
North Carolina	39.2
North Dakota	16.6
Ohio	41.4
Oklahoma	7.3
Oregon	23.3
Pennsylvania	37.5
Rhode Island	33.1
South Carolina	50.4
South Dakota	42.6
Tennessee	21.4
Texas	27.2
Utah	29.9
Vermont	90.9
Virginia	43.8
Washington	41.8
West Virginia	28.6
Wisconsin	30.8
Wyoming	11.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,658$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit C.3. State Agencies' Breastfeeding Data Sharing with Local Agencies

	Percentage of State Agencies
How State Agency Obtains Breastfeeding Information from Local Agencies (n _{SA} =48)	
Shared data system	93.9
Local agencies submit electronic reports	2.0
Local agencies submit paper reports	4.1

Source: WIC Breastfeeding Policy Inventory Study (n_{SA}=48). All tabulations are weighted to account for agency nonresponse.

Exhibit C.4. Factors Influencing Breastfeeding Decisions Collected in Agencies' Data Systems (Percentages)

	Direct-Service State Agencies	Local Agencies
Factors Influencing Ability or Willingness to Breastfeed Documented in a Data System ($n_{SA} = 33$; $n_{LA} = 1,519$)		
<i>Maternal or Infant Factors</i>		
Prenatal WIC participation	83.9	90.6
Prenatal breastfeeding intention	69.3	69.9
Prior breastfeeding experience	64.1	64.1
In-hospital breastfeeding experience	28.0	25.5
Early postpartum breastfeeding experience	49.4	49.2
Reasons for feeding choice	35.5	36.3
Maternal health issues	65.7	82.4
Infant health issues	86.7	89.3
Timing of return to work or school	56.2	42.0
Breastfeeding contraindications	61.2	49.7
<i>Agency Factors</i>		
Number of breastfeeding referrals	46.7	45.0
Reasons for breastfeeding referrals	48.5	35.3
Breastfeeding aid issuance ^a	70.2	61.5
Peer counseling program participation ^b	69.6	77.0
Breastfeeding education contacts	76.8	82.2
Agency Can Determine Whether Breastfeeding Outcomes Differ by Factor ($n_{SA} = 26$; $n_{LA} = 1,350$)		
<i>Maternal or Infant Factors</i>		
Prenatal WIC participation	47.6	32.5
Prenatal breastfeeding intention	51.2	32.1
Prior breastfeeding experience	66.6	35.6
In-hospital breastfeeding experience	76.6	34.1
Early postpartum breastfeeding experience	65.1	32.8
Reasons for feeding choice	70.2	39.2
Maternal health issues	36.8	23.8
Infant health issues	43.9	30.2
Timing of return to work or school	63.2	44.5
Breastfeeding contraindications	38.8	35.4
<i>Agency Factors</i>		
Number of breastfeeding referrals	51.5	24.6
Reasons for breastfeeding referrals	51.8	24.8
Breastfeeding aid issuance ^a	58.6	34.0
Peer counseling program participation ^b	100.0	61.7
Breastfeeding education contacts	76.1	40.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 35$; $n_{LA} = 1,633$). All tabulations are weighted to account for agency nonresponse.

^aAmong agencies that issue breastfeeding aids.

^bAmong agencies that operate a peer counseling program.

APPENDIX D
BREASTFEEDING OUTCOMES
SUPPLEMENTARY EXHIBITS

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Exhibit D.1. WIC Agencies Collecting Information on Breastfeeding Outcomes (Percentages)

	State Agencies (n _{SA} = 84)	Local Agencies (n _{LA} = 1,633)	Participants at Local Agencies (n _{LA} = 1,610)
Initiation	98.7	97.5	96.0
Duration	97.4	96.8	93.2
Exclusivity	95.4	95.0	94.0
Intensity	44.5	50.8	46.6

Sources: WIC Breastfeeding Policy Inventory Study (n_{SA} = 84; n_{LA} = 1,633) for the percentages of State and local agencies. WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,610 local agencies) and WIC Participant and Program Characteristics 2012 data for the percentages of participants. All tabulations are weighted to account for agency nonresponse.

Exhibit D.2. WIC Agencies Collecting Information on Multiple Breastfeeding Outcomes (Percentages)

	Stored in Any Data System		Stored in WIC Information System	
	State Agencies (n _{SA} = 84)	Local Agencies (n _{LA} = 1,633)	State Agencies (n _{SA} = 84)	Local Agencies (n _{LA} = 1,632)
Initiation Only	0.0	0.1	0.0	0.3
Duration Only	0.0	0.0	0.0	0.1
Exclusivity Only	0.0	0.1	0.0	0.1
Intensity Only	0.0	0.0	0.0	0.0
Initiation and Duration	3.5	3.1	3.5	3.4
Initiation and Exclusivity	0.0	1.2	1.3	1.5
Initiation and Intensity	0.0	0.0	0.0	0.0
Duration and Exclusivity	0.0	0.5	0.0	0.7
Duration and Intensity	0.0	0.0	0.0	0.0
Exclusivity and Intensity	1.3	0.1	1.3	0.1
Initiation, Duration, and Exclusivity	52.0	42.4	53.3	44.3
Initiation, Duration, and Intensity	1.1	0.1	1.1	0.2
Initiation, Exclusivity, and Intensity	1.3	0.1	0.0	0.2
Duration, Exclusivity, and Intensity	0.0	0.1	0.0	0.2
Initiation, Duration, Exclusivity, and Intensity	40.8	50.4	39.5	47.0

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 84; n_{LA} = 1,633). All tabulations are weighted to account for agency nonresponse.

Exhibit D.3. Percentage of Participants at Local WIC Agencies Collecting Information on Multiple Breastfeeding Outcomes

	Percentage of Participants at an Agency with Data Stored (n _{LA} = 1,610)	
	Any Data System	WIC Information System
Initiation Only	0.1	0.3
Duration Only	0.0	0.0
Exclusivity Only	0.1	0.1
Intensity Only	0.0	0.0
Initiation and Duration	3.7	4.5
Initiation and Exclusivity	4.5	4.9
Initiation and Intensity	0.0	0.0
Duration and Exclusivity	1.8	1.9
Duration and Intensity	0.0	0.0
Exclusivity and Intensity	0.0	0.0
Initiation, Duration, and Exclusivity	41.2	43.9
Initiation, Duration, and Intensity	0.2	0.5
Initiation, Exclusivity, and Intensity	0.0	1.1
Duration, Exclusivity, and Intensity	0.1	4.2
Initiation, Duration, Exclusivity, and Intensity	46.2	35.5

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,610) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Exhibit D.4. Proportion of Local WIC Agencies that Collect Initiation, Duration, Exclusivity, and Intensity in the WIC Information System Among Agencies that Collect All Four Measures, by State

	Local Agencies
Alaska	20.8
Alabama	36.4
Arizona	64.1
Arkansas	0.0
California	51.1
Colorado	65.9
Connecticut	45.4
Delaware	0.0
Florida	41.5
Georgia	27.8
Hawaii	48.0
Idaho	44.2
Illinois	36.3
Indiana	56.9
Iowa	47.3
Kansas	54.2
Kentucky	38.7
Louisiana	69.0
Maine	75.1
Maryland	61.1
Massachusetts	47.1
Michigan	79.2
Minnesota	56.7
Mississippi	50.0
Missouri	56.6
Montana	58.4
Nebraska	58.5
Nevada	29.0
New Hampshire	50.0
New Jersey	64.7
New Mexico	0.0
New York	61.6
North Carolina	25.4
North Dakota	58.4
Ohio	55.7
Oklahoma	76.9
Oregon	43.5
Pennsylvania	25.0
Rhode Island	44.1
South Carolina	24.4
South Dakota	66.6
Tennessee	7.1
Texas	31.6
Utah	50.1
Vermont	45.4
Virginia	71.9
Washington	25.9
West Virginia	71.4
Wisconsin	51.5
Wyoming	58.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,610$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

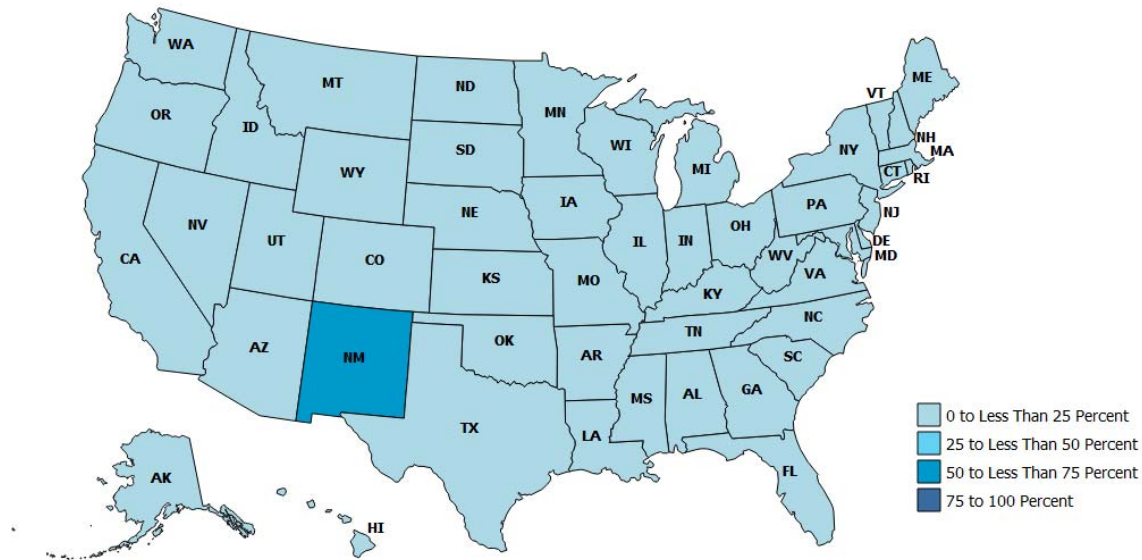
Exhibit D.5. Proportion of Local WIC Agencies that Collect Initiation, Duration, and Exclusivity in the WIC Information System Among Agencies that Collect These Three Measures But Not Intensity, by State

	Local Agencies
Alaska	79.2
Alabama	54.5
Arizona	35.9
Arkansas	100.0
California	38.7
Colorado	31.5
Connecticut	45.5
Delaware	100.0
Florida	58.5
Georgia	55.6
Hawaii	38.9
Idaho	34.4
Illinois	60.3
Indiana	34.1
Iowa	47.5
Kansas	37.5
Kentucky	49.1
Louisiana	26.8
Maine	24.9
Maryland	33.3
Massachusetts	47.0
Michigan	20.8
Minnesota	33.8
Mississippi	25.0
Missouri	38.9
Montana	37.4
Nebraska	25.1
Nevada	49.9
New Hampshire	50.0
New Jersey	29.4
New Mexico	48.5
New York	31.4
North Carolina	62.4
North Dakota	41.6
Ohio	38.6
Oklahoma	23.1
Oregon	53.2
Pennsylvania	66.7
Rhode Island	44.7
South Carolina	75.6
South Dakota	27.8
Tennessee	71.4
Texas	51.0
Utah	49.9
Vermont	45.5
Virginia	18.8
Washington	63.7
West Virginia	28.6
Wisconsin	47.1
Wyoming	41.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,610$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit D.6. Proportion of Local WIC Agencies that Collect Only Initiation and Duration in the WIC Information System, by State



Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,610$). All tabulations are weighted to account for agency nonresponse. Data are tabulated in Appendix Exhibit D.7.

Note: Map displays only local agencies that collect initiation and duration only. Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit D.7. Proportion of Local WIC Agencies that Collect Only Initiation and Duration in the WIC Information System, by State

	Local Agencies
Alaska	0.0
Alabama	0.0
Arizona	0.0
Arkansas	0.0
California	0.0
Colorado	2.6
Connecticut	0.0
Delaware	0.0
Florida	0.0
Georgia	11.1
Hawaii	13.2
Idaho	21.4
Illinois	1.1
Indiana	2.3
Iowa	5.2
Kansas	8.4
Kentucky	7.0
Louisiana	0.0
Maine	0.0
Maryland	0.0
Massachusetts	0.0
Michigan	0.0
Minnesota	6.8
Mississippi	12.5
Missouri	1.8
Montana	0.0
Nebraska	0.0
Nevada	0.0
New Hampshire	0.0
New Jersey	0.0
New Mexico	51.5
New York	3.5
North Carolina	6.2
North Dakota	0.0
Ohio	1.4
Oklahoma	0.0
Oregon	0.0
Pennsylvania	8.3
Rhode Island	11.2
South Carolina	0.0
South Dakota	1.9
Tennessee	21.4
Texas	3.1
Utah	0.0
Vermont	0.0
Virginia	0.0
Washington	8.5
West Virginia	0.0
Wisconsin	1.5
Wyoming	0.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 1,610$). All tabulations are weighted to account for agency nonresponse.

Note: Two of the 50 States directly provide services to participants. Estimates for these two States are based on the State agency responses.

Exhibit D.8. Participants at Local WIC Agencies with Data Systems Used to Store Breastfeeding Outcome Information, Among Agencies that Collect Breastfeeding Outcomes (Percentages)

Participants at Local Agencies	
Initiation ^a	
WIC information system (n _{LA} = 1,570)	94.4
Other administrative system (n _{LA} = 587)	54.3
Separate data system (n _{LA} = 86)	28.2
Duration ^a	
WIC information system (n _{LA} = 1,558)	97.0
Other administrative system (n _{LA} = 583)	49.3
Separate data system (n _{LA} = 86)	15.8
Exclusivity ^a	
WIC information system (n _{LA} = 1,530)	97.5
Other administrative system (n _{LA} = 568)	51.1
Separate data system (n _{LA} = 77)	20.2
Intensity ^a	
WIC information system (n _{LA} = 819)	88.6
Other administrative system (n _{LA} = 345)	60.7
Separate data system (n _{LA} = 50)	27.5

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,610) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Note: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations. We defined a separate data system as one that is not used to administer the WIC program such as interview, focus group, or survey data collected from WIC participants.

^a Multiple answers allowed.

Exhibit D.9. Percentage of Participants at Local WIC Agencies Collecting Information on Breastfeeding Outcomes to Provide Estimates of Breastfeeding Outcomes, and Data System Used

	Initiation	Duration	Exclusivity	Intensity
Percentage of Participants at Agencies that Can Provide Estimate from Data System				
WIC information system (n _{LA} = 1,555; n _{LA} = 1,540; n _{LA} = 1,512; n _{LA} = 767)	95.7	91.7	92.9	43.8
Other administrative system (n _{LA} = 258; n _{LA} = 242; n _{LA} = 215; n _{LA} = 134)	86.6	85.9	88.8	32.1
Separate data system (n _{LA} = 29; n _{LA} = 23; n _{LA} = 15; n _{LA} = 13)	78.8	72.8	94.3	81.4

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,572) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Notes: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations. We defined a separate data system as one that is not used to administer the WIC program such as interview, focus group, or survey data collected from WIC participants.

Exhibit D.10. Percentage of Participants by Difficulty Ratings for Local Agencies to Provide Recent Breastfeeding Estimates (1 is “Impossible” and 6 is “Extremely Easy”)

	Distribution of Scores (%)						Mean	Median
	1	2	3	4	5	6		
Percentage of Infants who Initiated Breastfeeding ($n_{LA} = 1,568$)	25.7	4.8	6.0	7.7	18.2	37.6	4.0	5
Percentage of Infants who Were Breastfed for at Least Six Months ($n_{LA} = 1,443$)	24.6	8.0	12.8	11.4	19.0	24.1	3.6	4
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Six Months ($n_{LA} = 1,569$)	25.1	12.7	10.1	13.8	17.8	20.6	3.5	4
Percentage of Infants who Were Exclusively Breastfed for at Least Three Months ($n_{LA} = 1,569$)	37.0	15.6	10.5	10.8	12.1	14.0	2.9	2
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Three Months ($n_{LA} = 1,563$)	26.2	19.6	11.1	10.3	17.5	15.3	3.2	3
Average Length of Time Infants Were Breastfed ($n_{LA} = 1,438$)	30.3	18.6	17.4	12.2	12.2	9.3	2.9	3
Average Length of Time Infants Were Exclusively Breastfed ($n_{LA} = 1,565$)	42.9	18.1	12.3	9.2	9.6	7.9	2.5	2
Percentage of Infants Receiving Fully, Partially, and Non-Breastfeeding Food Packages at Age Two Weeks ($n_{LA} = 1,567$)	30.5	23.0	15.4	9.5	12.3	9.2	2.8	2
Percentage of Total Feedings that are Breast Milk Feedings for Infants Age Three Months (Intensity) ($n_{LA} = 1,516$)	55.1	18.0	8.8	5.2	6.8	6.0	2.1	1

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,610$) and WIC Participant Program Characteristics 2012 data. All tabulations are weighted to account for agency nonresponse.

Note: Percentages account for all agencies, not just a subset. Percentages may not add to 100% due to rounding.

Exhibit D.11. Percentage of Participants at Local WIC Agencies Where WIC Staff Assess Breastfeeding Outcome Measures at Specific Encounters

	Initiation (n _{LA} = 1,566)	Duration (n _{LA} = 1,556)	Exclusivity (n _{LA} = 1,524)	Intensity (n _{LA} = 802)
Percentage of Participants at Agencies that Assess Outcome Measure ^a				
Before the first postpartum WIC clinic visit	54.6	40.8	50.1	48.7
Postpartum certification appointment	95.9	89.6	96.8	96.7
Later recertification visits	38.1	71.8	67.2	63.5
Other WIC clinic visits	39.5	75.8	74.9	71.2
Peer counseling visits or calls	73.1	83.0	84.3	89.8
Other	7.4	6.3	6.0	7.2

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,610) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Note: Calculated among local WIC agencies that collect breastfeeding outcome measures.

^a Multiple answers allowed.

Exhibit D.12. Participants at Local WIC Agencies, by Breastfeeding Initiation Measurement Characteristic (Percentages)

	Participants
Agencies' Storage of Information on Whether Mothers Ever Breastfed or are Currently Breastfeeding (n_{LA} = 1,560)	
Only whether a mother ever breastfed her child	0.2
Only whether a mother is currently breastfeeding her child	4.1
Both whether a mother ever breastfed her child and whether she is currently breastfeeding	95.7
Neither whether a mother ever breastfed her child nor whether she is currently breastfeeding	0.0
Ordering of "Ever Breastfed" and "Currently Breastfeeding" Questions (n_{LA} = 1,541)	
Ask "ever breastfed" first	26.9
Ask "currently breastfeeding" first	73.1
Question Wording for "Ever Breastfed" (n_{LA} = 1,541)	
Did your baby ever receive breast milk?	32.1
Did you breastfeed or feed breast milk to your baby at least once?	18.7
Did you ever breastfeed or express breast milk to feed your baby after delivery?	26.0
Did you ever breastfeed or express breast milk to feed your new baby after delivery, even for a short period of time?	13.9
Did you make any attempt to breastfeed, whether it was successful or not?	9.3
Question Wording for "Currently Breastfeeding" (n_{LA} = 1,551)	
Are you now breastfeeding your baby?	14.8
Are you currently breastfeeding?	66.2
What type of milk did your baby consume the most in the past week?	2.4
Have you stopped breastfeeding altogether?	1.2
Are you still breastfeeding or feeding expressed milk to your baby?	15.4

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,610) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Exhibit D.13. Participants at Local WIC Agencies, by How Agencies Determine Breastfeeding Initiation (Percentages)

	Participants
Based on the WIC Information System (n_{LA} = 1,548)	
Only whether mothers report initiating breastfeeding	26.3
Only whether infants receive fully or partially breastfeeding food packages	13.6
Both whether mothers report initiating breastfeeding and whether infants receive fully or partially breastfeeding food packages	60.0
Based on the Other Administrative Data System (n_{LA} = 257)	
Only whether mothers initiated breastfeeding	46.8
Only whether infants receive fully or partially breastfeeding food packages	5.1
Both whether mothers initiated breastfeeding and whether infants receive fully or partially breastfeeding food packages	21.2

Source: WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,569) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Exhibit D.14. Breastfeeding Initiation Data Storage, by Agencies' Determination of Initiation in the WIC Information System (Percentages)

	All Agencies	Agencies that Determine Breastfeeding Initiation Based on "Mothers who Initiated Breastfeeding"	Agencies that Determine Breastfeeding Initiation Based on "Infants Receiving Fully or Partially Breastfeeding Food Packages"
<i>State Agencies (n_{SA} = 83; n_{SA} = 82; n_{SA} = 82)</i>			
Store information only on whether a mother ever breastfed her child	2.4	2.8	1.8
Store information only on whether a mother is currently breastfeeding her child	0.0	0.0	0.0
Store information both on whether a mother ever breastfed her child and on whether a mother is currently breastfeeding	96.3	97.2	98.2
Do not store information on whether a mother ever breastfed her child or on whether a mother is currently breastfeeding her child	1.3	0.0	0.0
<i>Local Agencies (n_{LA} = 1,582; n_{LA} = 1,562; n_{LA} = 1,562)</i>			
Store information only on whether a mother ever breastfed her child	0.4	0.1	0.0
Store information only on whether a mother is currently breastfeeding her child	1.0	0.6	1.1
Store information both on whether a mother ever breastfed her child and on whether a mother is currently breastfeeding	95.9	99.3	98.9
Do not store information on whether a mother ever breastfed her child or on whether a mother is currently breastfeeding her child	2.6	0.0	0.0

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 83; n_{LA} = 1,580). All tabulations are weighted to account for agency nonresponse.

Exhibit D.15. Participants at Local WIC Agencies with Specific Breastfeeding Initiation Data Storage Characteristics, by Agencies' Determination of Initiation in the WIC Information System (Percentages)

	All Agencies ($n_{LA} = 1,560$)	Agencies that Determine Breastfeeding Initiation Based on "Mothers who Initiated Breastfeeding" ($n_{LA} = 1,540$)	Agencies that Determine Breastfeeding Initiation Based on "Infants Receiving Fully or Partially Breastfeeding Food Packages" ($n_{LA} = 1,540$)
Agencies that store information only on whether a mother ever breastfed her child	0.2	0.0	0.0
Agencies that store information only on whether a mother is currently breastfeeding her child	4.1	0.2	4.5
Agencies that store information both on whether a mother ever breastfed her child and on whether a mother is currently breastfeeding	95.7	99.7	95.5
Agencies that do not store information on whether a mother ever breastfed her child or on whether a mother is currently breastfeeding her child	0.0	0.0	0.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,558$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Exhibit D.16. Participants at Local WIC Agencies, by Questions that Clinic Staff Ask Mothers about Breastfeeding Duration (As Reported by Local Agencies) (Percentages)

	Participants ($n_{LA} = 1,546$)
How Long Did Your Baby at Least Partially Breastfeed?	1.0
How Old was Your Baby the First Time You Fed Him or Her Anything Other than Breast Milk?	9.8
How Many Weeks or Months Did You Breastfeed or Pump Milk to Feed Your Baby?	12.2
Mother is Asked Whether She is Still Breastfeeding. If She Responds "No," She is Asked the Date She Stopped.	48.9
Mother is Asked Whether She is Still Breastfeeding. If She Responds "No," She is Asked How Long She Gave Breast Milk to Her Baby.	28.1

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,556$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Exhibit D.17. Participants at Local WIC Agencies, by How Agencies Determine Breastfeeding Duration (Percentages)

	Participants
Based on the WIC Information System ($n_{LA} = 1,534$) ^a	
Difference between dates when breastfeeding started and ended	50.0
Length of time as reported by the mother	68.9
Length of time an infant receives a fully or partially breastfeeding food package	50.1
Based on the Other Administrative Data System ($n_{LA} = 239$) ^a	
Difference between dates when breastfeeding started and ended	1.0
Length of time as reported by the mother	48.4
Length of time an infant receives a fully or partially breastfeeding food package	61.5

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,556$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Note: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations.

^a Multiple answers allowed.

Exhibit D.18. How Agencies Store Breastfeeding Cessation Dates among Agencies that Determine Breastfeeding using the Difference between Dates When Breastfeeding Started and Ended (Percentages)

	State Agencies	Local Agencies
Based on the WIC Information System ($n_{SA} = 61$; $n_{LA} = 961$) ^a		
End date is the date reported by the mother	93.0	95.9
End date is the date at which the mother reports she is no longer breastfeeding	20.6	13.4
Based on the Other Administrative Data System ($n_{SA} = 7$; $n_{LA} = 167$) ^a		
End date is the date reported by the mother	100.0	66.9
End date is the date at which the mother reports she is no longer breastfeeding	28.3	13.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 61$; $n_{LA} = 968$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Exhibit D.19. Participants at Local WIC Agencies, by How Agencies Store Breastfeeding Cessation Dates (Percentages)

	Participants
Based on the WIC Information System ($n_{LA} = 951$) ^a	
End date is the date reported by the mother	93.5
End date is the date at which the mother reports she is no longer breastfeeding	17.8
Based on the Other Administrative Data System ($n_{LA} = 166$) ^a	
End date is the date reported by the mother	82.3
End date is the date at which the mother reports she is no longer breastfeeding	9.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 965$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Notes: Calculated among agencies that determine breastfeeding using the difference between dates when breastfeeding started and ended. We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations.

^a Multiple answers allowed.

Exhibit D.20. Participants at Local WIC Agencies, by Questions that Clinic Staff Ask Mothers about Breastfeeding Exclusivity (As Reported by Agencies) (Percentages)

	Local Agencies ($n_{LA} = 1,519$)
What Did You Feed Your Baby in the Past 24 Hours? If Formula Was Introduced, How Much?	0.6
How Are You Feeding Your Baby?	27.8
How Long Did You Give (Just or Only) Breast Milk to Your Baby?	8.9
Do You Only Give Your Baby Breast Milk and Vitamin Supplements?	1.2
Is Your Baby Receiving Any Solids, Water, or Other Liquids Besides Breast Milk?	14.6
Did You Feed Your Baby Anything Other than Breast Milk?	19.7
How Old Was Your Baby the First Time He or She Drank Liquids Other Than Breast Milk (Such as Formula, Water, Juice, Tea, or Cow's Milk)?	6.3
How Old Was Your Baby When He/She Was First Fed Formula?	4.2
How Old Was Your Baby When He/She Was First Fed Anything Other Than Breast Milk or Formula?	11.2
Other	5.6

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,529$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Exhibit D.21. How Agencies Determine the Length of Breastfeeding Exclusivity (Percentages)

	State Agencies	Local Agencies
Based on the WIC Information System ($n_{SA} = 79$; $n_{LA} = 1,532$) ^a		
Difference in dates between when exclusive breastfeeding started and stopped	47.7	48.5
Number of days, weeks, or months as reported by the mother	55.5	63.8
Length of time an infant receives a fully breastfeeding food package	64.2	51.7
Other	2.4	1.8
Based on the Other Administrative Data System ($n_{SA} = 13$; $n_{LA} = 215$) ^a		
Difference in dates between when exclusive breastfeeding started and stopped	39.3	45.6
Number of days, weeks, or months as reported by the mother	78.6	66.3
Length of time an infant receives a fully breastfeeding food package	63.1	30.2
Other	14.3	7.6

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 80$; $n_{LA} = 1,550$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Exhibit D.22. Participants at Local WIC Agencies, by How Agencies Determine the Length of Breastfeeding Exclusivity (Percentages)

	Participants
Based on the WIC Information System ($n_{LA} = 1,511$) ^a	
Difference in dates between when exclusive breastfeeding started and stopped	37.4
Number of days, weeks, or months as reported by the mother	54.8
Length of time an infant receives a fully breastfeeding food package	65.2
Other	4.1
Based on the Other Administrative Data System ($n_{LA} = 214$) ^a	
Difference in dates between when exclusive breastfeeding started and stopped	52.3
Number of days, weeks, or months as reported by the mother	50.9
Length of time an infant receives a fully breastfeeding food package	30.1
Other	3.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,529$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Note: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations.

^a Multiple answers allowed.

Exhibit D.23. Participants at Local WIC Agencies, by How Agencies Determine Breastfeeding Exclusivity (Percentages)

	Participants
Based on the WIC Information System ($n_{LA} = 1,504$) ^a	
Infant receives no solids, water, or other liquids besides breast milk	39.9
Infant receives fully breastfeeding food package	85.2
Other	2.3
Mother receives fully breastfeeding food package	1.1
Based on the Other Administrative Data System ($n_{LA} = 210$)	
Infant receives no solids, water, or other liquids besides breast milk	53.4
Infant receives fully breastfeeding food package	31.9
Other	2.2
Mother receives fully breastfeeding food package	0.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,529$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Exhibit D.24. Time Period Reflected in Agencies' Most Recent Estimates of Infants Exclusively Breastfed for at Least Three Months (Percentages)

	State Agencies ($n_{SA} = 29$)	Local Agencies ($n_{LA} = 480$)
2011	6.4	0.8 ^a
2012	9.6	6.9 ^b
2012 – 2013	24.1	26.4
2013	59.8	62.8
Other	0.0	3.1 ^c

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 36$; $n_{LA} = 596$). All tabulations are weighted to account for agency nonresponse.

Note: Calculated based on calendar years reported by agencies for their estimates of the percentage of infants exclusively breastfed for at least three months. This table includes responses for estimates from the WIC Information System or other administrative system, whichever the agency used for their estimate.

^a Includes agencies that reported the data reflected 2010-2011 or 2011.

^b Includes agencies that reported the data reflected 2011-2012 or 2012.

^c Includes agencies that reported the breastfeeding exclusivity data reflected calendar years beginning in 2005, 2007, 2008, 2009, 2010, or 2011 and continuing through 2013. Includes one local agency that reported the data reflected 2005 only.

Exhibit D.25. Capability of Agencies to Provide Estimate of the Length of Time an Infant is Exclusively Breastfed (Percentages)

	State Agencies	Local Agencies
Can Provide Estimate of the Percentage of Infants who were Exclusively Breastfed for a Minimum Length of Time		
WIC information system (n _{SA} = 54; n _{LA} = 1,168)	77.6	68.1
Other administrative system (n _{SA} = 10; n _{LA} = 169)	41.6	52.6
Separate data system (n _{SA} = 1; n _{LA} = 12)	0.0	33.4
Lengths of Time for which Agency Can Produce an Estimate of the Percentage of Infants who were Breastfed Exclusively for at Least that Length of Time (n _{SA} = 42; n _{LA} = 794) ^a		
One week	55.7	48.4
One month	77.3	68.1
Six weeks	62.4	40.2
Two months (eight weeks)	74.7	48.2
Three months (13 weeks)	87.5	73.6
Four months	72.9	43.6
Five months	67.6	39.5
Six months (26 weeks)	95.2	86.5
One year	12.1	6.3
Other	2.2	1.4
Can Provide Estimate of the Average Length of Time Infants are Exclusively Breastfed		
WIC information system (n _{SA} = 46; n _{LA} = 1,017)	65.7	49.6
Other administrative system (n _{SA} = 8; n _{LA} = 148)	39.7	41.2
Separate data system (n _{SA} = 1; n _{LA} = 12)	0.0	25.2

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 83; n_{LA} = 1,597). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Exhibit D.26. Participants at Local WIC Agencies, by Agencies' Capability to Provide Estimate of the Length of Time an Infant is Exclusively Breastfed (Percentages)

	Participants
Can Provide Estimate of the Percentage of Infants who Were Exclusively Breastfed for a Minimum Length of Time	
WIC information system ($n_{LA} = 1,149$)	66.3
Other administrative system ($n_{LA} = 168$)	64.7
Separate data system ($n_{LA} = 12$)	21.7
Lengths of Time for Which Agency Can Produce an Estimate of the Percentage of Infants who Were Breastfed Exclusively for at Least that Length of Time ($n_{LA} = 782$)^a	
One week	38.9
One month	67.2
Six weeks	38.9
Two months (eight weeks)	53.7
Three months (13 weeks)	68.6
Four months	49.9
Five months	35.6
Six months (26 weeks)	89.5
One year	6.4
Other	1.4
Can Provide Estimate of the Average Length of Time Infants Are Exclusively Breastfed	
WIC information system ($n_{LA} = 1,001$)	45.7
Other administrative system ($n_{LA} = 148$)	29.2
Separate data system ($n_{LA} = 12$)	12.8

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,575$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Notes: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations. We defined a separate data system as one that is not used to administer the WIC program such as interview, focus group, or survey data collected from WIC participants.

^a Multiple answers allowed.

Exhibit D.27. Capability of Agencies to Provide Estimate of the Percentage of Infants that Were Exclusively Breastfed at Different Infant Ages, Among Agencies that Collect and Store the Information (Percentages)

	State Agencies	Local Agencies
WIC Information System ($n_{SA} = 40$; $n_{LA} = 779$) ^a		
One week	53.4	48.5
One month	76.2	68.1
Six weeks	60.5	40.5
Two months (eight weeks)	73.4	48.1
Three months (13 weeks)	86.8	73.5
Four months	71.5	43.8
Five months	66.0	39.7
Six months (26 weeks)	94.9	86.5
Seven months through one year	12.7	6.5
More than one year	7.6	3.1
Other	2.3	1.3
Other Administrative System ($n_{SA} = 1$; $n_{LA} = 25$) ^a		
One week	100.0	48.2
One month	100.0	68.3
Six weeks	100.0	24.3
Two months (eight weeks)	100.0	56.5
Three months (13 weeks)	100.0	68.2
Four months	100.0	48.5
Five months	100.0	40.3
Six months (26 weeks)	100.0	88.1
Seven months through one year	0.0	4.0
More than one year	0.0	4.0
Other	0.0	4.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 43$; $n_{LA} = 824$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Exhibit D.28. Ranges of Ages for which Agencies Could Provide Food-Package Based Estimate of Exclusivity, Among Agencies that Could Provide Only a Food-Package Based Estimate of Exclusivity (Percentages)

	State Agencies	Local Agencies
In-Hospital	0.0	5.8
Two Weeks	32.1	21.2
One Month (four weeks)	33.9	32.8
Two Months (eight weeks)	33.9	29.9
Three Months (13 weeks)	34.0	35.9
Zero to Three Months	17.9	19.9
Four to Six Months	24.1	31.9
None	53.5	47.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 17$; $n_{LA} = 208$). All tabulations are weighted to account for agency nonresponse.

Note: Multiple answers allowed.

Exhibit D.29. Percentage of Infants Exclusively Breastfed for at Least Three Months Based on Methods and Data Source in the WIC Information System

	Infants Exclusively Breastfed for at Least Three Months (State Agencies)	Infants Exclusively Breastfed for at Least Three Months (Local Agencies)
<i>Method of Determination (n_{SA} = 80; n_{LA} = 1,535)</i>		
Infant receives no solids, water, or other liquids besides breast milk (n _{SA} = 7; n _{LA} = 144) ^a		
Mean	14.8	23.2
Median	12.0	18.0
Interquartile range	3.5-25.0	9.0-31.0
Range	0.0-44.0	0.0-96.0
Infant receives fully breastfeeding food package (n _{SA} = 11; n _{LA} = 164) ^a		
Mean	20.8	23.2
Median	13.0	17.0
Interquartile range	10.0-25.0	9.4-32.0
Range	8.0-70.0	0.0-100.0 ^b
Agency is capable of using both of the above methods (n _{SA} = 11; n _{LA} = 168) ^a		
Mean	26.1	22.8
Median	16.0	17.0
Interquartile range	11.0-38.0	8.0-33.0
Range	2.8-75.0	0.0-100.0
<i>How Agencies Determine Length of Breastfeeding Exclusivity (n_{SA} = 80; n_{LA} = 1,535)</i>		
Difference in dates between when exclusive breastfeeding started and stopped (n _{SA} = 7; n _{LA} = 1,056)		
Mean	34.5	25.7
Median	12.0	22.0
Interquartile range	10.0-70.0	9.4-33.0
Range	5.2-75.0	0.0-100.0
Number of days, weeks, or months, as reported by the mother (n _{SA} = 10; n _{LA} = 193)		
Mean	20.6	22.7
Median	16.5	17.0
Interquartile range	11.0-33.0	9.0-33.0
Range	0.0-52.0	0.0-96.0
Agency is capable of using both of the above methods (n _{SA} = 13; n _{LA} = 176)		
Mean	17.6	21.9
Median	13.0	15.0
Interquartile range	8.6-20.0	6.3-31.0
Range	2.8-55.0	0.0-100.0

Exhibit D.29 (continued)

	Infants Exclusively Breastfed for at Least Three Months (State Agencies)	Infants Exclusively Breastfed for at Least Three Months (Local Agencies)
<i>Source of Exclusivity Estimate (n_{SA} = 34; n_{LA} = 558)</i>		
A report generated by State agency (n _{SA} = 10; n _{LA} = 271)		
Mean	24.4	21.6
Median	13.0	16.0
Interquartile range	10.0-38.0	8.0-30.0
Range	3.5-70.0	0.0-96.0
A report generated by CDC (n _{SA} = 2; n _{LA} = 1)		
Mean	31.5	25.0
Median	31.5	25.0
Interquartile range	11.0-52.0	25.0-25.0
Range	11.0-52.0	25.0-25.0
Custom query of data system (n _{SA} = 10; n _{LA} = 36)		
Mean	13.6	21.5
Median	13.0	20.0
Interquartile range	8.0-20.0	7.0-31.0
Range	2.8-25.0	0.0-65.0

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 33; n_{LA} = 555). All tabulations are weighted to account for agency nonresponse.

Note: This table includes all agency responses for the WIC information system, however, it is not restricted to those agencies that reported using this system exclusively.

^a Calculated among agencies that reported one or both of two main methods listed; does not consider those that may also have reported another reason.

CDC = Centers for Disease Control and Prevention.

Exhibit D.30. Percentage of Infants Exclusively Breastfed for at Least Three Months Based on Questions that Clinic Staff ask about Breastfeeding Exclusivity

	Infants Exclusively Breastfed for at Least Three Months (State Agencies)	Infants Exclusively Breastfed for at Least Three Months (Local Agencies)
<i>Question Asked by Clinic Staff</i>		
How are you feeding your baby? ($n_{SA} = 6$; $n_{LA} = 100$)		
Mean	24.7	26.0
Median	14.5	21.0
Interquartile range	13-20	9.4-36
Range	11-75	0-96
Did you feed your baby anything other than breast milk? ($n_{SA} = 3$; $n_{LA} = 122$)		
Mean	32.2	19.8
Median	33.0	14.0
Interquartile range	8.6-55	8-31
Range	8.6-55	0-78
Is your baby receiving any solids, water, or other liquids besides breast milk? ($n_{SA} = 31$; $n_{LA} = 85$)		
Mean	30.7	29.3
Median	10.0	25.0
Interquartile range	5.2-70	10-38
Range	5.2-70	0-100

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 36$; $n_{LA} = 596$). All tabulations are weighted to account for agency nonresponse.

Note: This table reports the three most common questions asked (of 10 options provided) and includes responses for the agency's most recent estimate of breastfeeding exclusively for at least three months from the WIC information system or other administrative system, whichever the agency used for their estimate.

Exhibit D.31. Percentage of Infants Exclusively Breastfed for at Least Three Months Based on the Description of the Population Characteristics, in the WIC Information System

	State Agencies	Local Agencies
<i>What is the population that this estimate represents?</i>		
Infants born in a given time period that exclusively breastfed for at least three months ($n_{SA} = 16$; $n_{LA} = 219$)		
Mean	23.0	22.1
Median	13	17
Interquartile range	5-38	8-30
Range	0-75	0-96
Mothers or infants initially certified in a given time period that exclusively breastfed for at least three months ($n_{SA} = 4$; $n_{LA} = 134$)		
Mean	26.0	20.8
Median	18	16
Interquartile range	15-38	8-31
Range	13-55	0-63
Infants born to mothers who were enrolled in WIC during pregnancy that exclusively breastfed ($n_{SA} = 6$; $n_{LA} = 88$)		
Mean	21.5	28.1
Median	11	21
Interquartile range	9-20	10-40
Range	8-70	0-100

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 33$; $n_{LA} = 555$). All tabulations are weighted to account for agency nonresponse.

Note: This table includes all responses for the WIC information system, however, is not restricted to those agencies who reported using this system exclusively.

Exhibit D.32. Source of Agency's Estimate of Breastfeeding Exclusivity (Percentages)

	State Agencies	Local Agencies
WIC Information System ($n_{SA} = 31$; $n_{LA} = 512$)		
An estimate calculated by hand in the local agency	7.1	10.1
A report generated by local agency	7.3	21.7
A report generated by State agency	36.9	58.5
A report generated by CDC	9.1	0.4
Performed custom query of data system	32.4	7.7
More than one source ^a	3.6	0.8
Other	3.6	0.8
Other Administrative System ($n_{SA} = 1$; $n_{LA} = 16$)		
An estimate calculated by hand in the local agency	0.0	6.1
A report generated by local agency	0.0	6.1
A report generated by State agency	0.0	49.9
A report generated by CDC	0.0	0.0
Performed custom query of data system	100.0	37.9
More than one source	0.0	0.0
Other	0.0	0.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 36$; $n_{LA} = 596$). All tabulations are weighted to account for agency nonresponse.

Note: Some State agencies and local agencies indicated they could report an estimate of the percentage of infants exclusively breastfed for at least three months from the WIC information system and another administrative system. We requested their estimate from the system storing the most exclusivity information.

^a Most of the agencies in this category reported using a combination of hand calculation and custom queries to produce the estimates.

Exhibit D.33. Participants at Local WIC Agencies, by How Agencies Determine Breastfeeding Intensity (Percentages)

	Participants
Based on the WIC Information System ($n_{LA} = 717$) ^a	
Percentage of liquid feedings that are breast milk	53.7
Percentage of total feedings, including solid foods, that are breast milk	34.7
Other	29.0
Number of times/how often mother breastfeeds	7.6
Based on the Other Administrative Data System ($n_{LA} = 116$) ^a	
Percentage of liquid feedings that are breast milk	46.2
Percentage of total feedings, including solid foods, that are breast milk	38.6
Other	39.6
Number of times/how often mother breastfeeds	0.0

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 815$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Note: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations.

^a Multiple answers allowed.

Exhibit D.34. Questions that Clinic Staff Ask Mothers about Breastfeeding Intensity (As Reported by Agencies) (Percentages)

	Direct-Service State Agencies (n _{SA} = 20)	Local Agencies (n _{LA} = 811)	Participants at Local Agencies (n _{LA} = 801)
How Many Times a Day (Past 24 hours) Was Your Baby Fed the Following Foods?	100.0	93.7	94.3
In the Past Seven Days, How Often Was Your Baby Fed Each of the Following Foods?	0.0	6.3	5.7

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 20; n_{LA} = 825) for the percentages of State and local agencies. WIC Breastfeeding Policy Inventory Study (n_{LA} = 813) and WIC Participant and Program Characteristics 2012 data for the percentage of participants. All tabulations are weighted to account for agency nonresponse.

Exhibit D.35. Ranges of Ages for which Agencies Can Provide Estimates of Breastfeeding Intensity (Percentages)

	State Agencies (n _{SA} = 16)	Local Agencies (n _{LA} = 410)	Participants at Local Agencies (n _{LA} = 402)
In-Hospital	12.1	17.8	19.7
Two Weeks	48.3	32.4	36.5
One Month (Four Weeks)	61.4	44.8	46.1
Two Months (Eight Weeks)	41.8	30.9	36.2
Three Months (13 Weeks)	41.8	41.1	41.4
Six Months (26 Weeks)	68.3	50.5	57.9
Nine Months	36.3	25.1	26.4
Twelve Months	61.8	39.7	39.0
Zero to Three Months	31.7	23.2	33.2
Four to Six Months	25.1	22.5	26.7
Seven to Nine Months	25.1	19.8	23.7
Ten to 12 Months	25.1	21.1	23.8
Other	11.1	10.2	9.2

Source: WIC Breastfeeding Policy Inventory Study (n_{SA} = 80; n_{LA} = 1,550) for the percentages of State and local agencies. WIC Breastfeeding Policy Inventory Study (n_{LA} = 1,529 local agencies) and WIC Participant and Program Characteristics 2012 data for the percentages of participants. All tabulations are weighted to account for agency nonresponse.

Note: Multiple answers allowed.

Exhibit D.36. Capability of Agencies to Provide Estimates of Breastfeeding Intensity, Number of Infants in the Estimates, and Estimate Sources

	State Agencies	Local Agencies
<i>Infant ages or range of ages that agency could produce an estimate of breastfeeding intensity (percentages)</i>		
WIC information system ($n_{SA} = 15$; $n_{LA} = 375$) ^a		
In-Hospital	6.0	17.3
Two Weeks	51.7	31.5
One Month (Four Weeks)	65.7	44.5
Two Months (Eight Weeks)	44.7	30.5
Three Months (13 Weeks)	44.7	40.3
Six Months (26 Weeks)	73.1	50.0
Nine Months	38.8	25.3
Twelve Months	66.1	40.4
Zero to Three Months	33.9	23.4
Four to Six Months	26.9	22.7
Seven to Nine Months	26.9	19.5
Ten to 12 Months	26.9	20.8
More than one year	6.0	0.5
Other	6.0	2.7
Other administrative system ($n_{SA} = 2$; $n_{LA} = 72$) ^a		
In-Hospital	50.0	19.5
Two Weeks	0.0	40.1
One Month (Four Weeks)	50.0	41.5
Two Months (Eight Weeks)	0.0	34.5
Three Months (13 Weeks)	0.0	48.6
Six Months (26 Weeks)	0.0	52.7
Nine Months	0.0	23.4
Twelve Months	0.0	40.1
Zero to Three Months	0.0	25.0
Four to Six Months	0.0	26.3
Seven to Nine Months	0.0	23.5
Ten to 12 Months	0.0	23.6
More than one year	0.0	0.0
Other	0.0	3.5
<i>Total Number of Infants Included in this Estimate</i>		
WIC information system ($n_{SA} = 13$; $n_{LA} = 275$)		
Mean	464	427
Median	88	77
Interquartile range	7– 300	20 – 354
Range	2 – 3,799	1 – 12,345
Other administrative system ($n_{SA} = 2$; $n_{LA} = 23$)		
Mean	9,888	178
Median	60	76
Interquartile range	60 – 21,410	28 – 100
Range	60 – 21,410	8 – 1, 379

Exhibit D.36. (continued)

	State Agencies	Local Agencies
<i>Source of Agency's Estimate of Breastfeeding Intensity (Percentage of Agencies)</i>		
WIC information system ($n_{SA} = 17$; $n_{LA} = 336$)		
An estimate calculated by hand in the local agency	12.2	23.3
A report generated by local agency	12.2	12.3
A report generated by State agency	30.1	53.9
A report generated by CDC	0.0	0.9
Performed custom query of data system	28.8	5.4
More than one source	5.2	1.8
Unable to produce the report	6.1	0.6
Other	5.2	1.8
Other administrative system ($n_{SA} = 2$; $n_{LA} = 25$)		
An estimate calculated by hand in the local agency	54.0	23.5
A report generated by local agency	0.0	35.7
A report generated by State agency	0.0	12.6
A report generated by CDC	0.0	0.0
Performed custom query of data system	46.0	8.1
More than one source	0.0	11.9
Unable to produce the report	0.0	0.0
Other	0.0	8.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 22$; $n_{LA} = 446$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Exhibit D.37. Time Period Reflected in Agencies' Most Recent Estimate of Breastfeeding Intensity (Percentages)

	State Agencies ($n_{SA} = 15$)	Local Agencies ($n_{LA} = 289$)
2012 – 2013	27.5	28.8 ^a
2013	72.5	63.3
Other	0.0	7.9 ^b

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 22$; $n_{LA} = 442$). All tabulations are weighted to account for agency nonresponse.

Note: Calculated based on calendar years reported by agencies for their estimates of the percentage of feedings that were breast milk feedings. This table included responses for estimates from the WIC information system or other administrative system, whichever the agency used for their estimate.

^a Includes agencies that reported estimates reflected 2012 or 2012-2013.

^b Includes agencies that reported the breastfeeding intensity data reflected calendar years 2005-2013, 2008-2013, 2010, 2010-2011, 2011, and 2011-2012. Includes one local agency that reported the data reflected 2005 only.

Exhibit D.38. By Source, Percentage of Total Feedings that are Breast Milk Feedings for Infants Age 3 Months, Among Agencies that Can Provide an Estimate of Breastfeeding Intensity Stored in the WIC Information System

	State Agencies	Local Agencies
<i>Source of Agency's Estimate of Breastfeeding Intensity</i>		
An estimate calculated by hand in the local agency ($n_{SA} = 1$; $n_{LA} = 29$)		
Mean	75.0	37.4
Median	75.0	30.0
Interquartile range	75.0-75.0	20-50
Range	75.0-75.0	0-100
A report generated by local agency ($n_{SA} = 1$; $n_{LA} = 19$)		
Mean	0.0	41.1
Median	0.0	35.0
Interquartile range	0.0 – 0.0	12 – 56
Range	0.0 – 0.0	3 - 100
A report generated by State agency ($n_{SA} = 1$; $n_{LA} = 83$)		
Mean	33.7	39.0
Median	30.0	30.0
Interquartile range	30-38	15-59
Range	30-38	0-100

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 7$; $n_{LA} = 167$). All tabulations are weighted to account for agency nonresponse.

Exhibit D.39. How Agencies Store Breastfeeding Intensity Information (Percentages)

	State Agencies	Local Agencies
Based on the WIC Information System ($n_{SA} = 28$; $n_{LA} = 667$) ^a		
A field recording the percentage of total feedings that were breast milk	18.8	36.4
Separate fields recording the number of breast milk and non-breast milk feedings	35.9	38.9
A field indicating whether breast milk feedings exceed a certain threshold such as 50 percent	13.0	25.5
Other	39.4	18.4
Recorded in unstructured data field	11.7	6.2
Based on the Other Administrative Data System ($n_{SA} = 4$; $n_{LA} = 76$) ^a		
A field recording the percentage of total feedings that were breast milk	54.0	49.9
Separate fields recording the number of breast milk and non-breast milk feedings	100.0	51.2
A field indicating whether breast milk feedings exceed a certain threshold such as 50 percent	27.0	23.4
Other	23.0	15.9
Recorded in unstructured data field	0.0	2.6

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 36$; $n_{LA} = 825$). All tabulations are weighted to account for agency nonresponse.

^a Multiple answers allowed.

Exhibit D.40. Participants at Local WIC Agencies, by How Agencies Store Breastfeeding Intensity Information (Percentages)

	Participants
Based on the WIC Information System ($n_{LA} = 659$) ^a	
A field recording the percentage of total feedings that were breast milk	36.1
Separate fields recording the number of breast milk and non-breast milk feedings	45.0
A field indicating whether breast milk feedings exceed a certain threshold such as 50 percent	31.2
Other	23.3
Recorded in unstructured data field	6.5
Based on the Other Administrative Data System ($n_{LA} = 75$) ^a	
A field recording the percentage of total feedings that were breast milk	33.7
Separate fields recording the number of breast milk and non-breast milk feedings	39.3
A field indicating whether breast milk feedings exceed a certain threshold such as 50 percent	51.3
Other	18.2
Recorded in unstructured data field	1.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 815$) and WIC 2012 Participant and Program Characteristics Data. All tabulations are weighted to account for agency nonresponse.

Notes: We defined *other administrative system* as a database, spreadsheet, or some other data storage system that is separate from the WIC information system. The other administrative system is used for some aspect of WIC program operations.

^a Multiple answers allowed.

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APPENDIX E

LESSONS LEARNED AND FUTURE FIELDING CONSIDERATIONS

SUPPLEMENTARY EXHIBITS

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Exhibit E.1. WIC BPI Part 1 Questions with the Highest and Lowest Burden Estimates for State Agencies

	Mean Minutes
Question Topics with the Five Highest Estimates	
Policy agency would like to implement and barriers to its implementation	5.3
Existing policy or practice respondent would recommend to other WIC agencies	4.0
Any additional policies or practices to promote breastfeeding not covered elsewhere in the survey	3.5
Number of full-time equivalents in paid staff positions	3.5
State has breastfeeding promotion policies that exceed federal requirements	3.4
Question Topics with the Five Lowest Estimates	
Agency operates a breastfeeding helpline	0.2
Number of people serving as peer counselors	0.2
Enrollment in peer counseling program is automatic	0.2
Staff provide in-hospital breastfeeding support	0.2
Staff are trained on using food packages to promote breastfeeding	0.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$). Tabulations are unweighted.

Exhibit E.2. WIC BPI Part 1 Questions with the Highest and Lowest Burden Estimates for Local Agencies

	Mean Minutes
Question Topics with the Five Highest Estimates	
Number of full-time equivalents in paid staff positions	3.9
Policy agency would like to implement and barriers to its implementation	2.6
Minimum frequency of peer counseling contact attempts in prenatal and postpartum time periods	2.3
Percentage of participants enrolled in the peer counseling program	2.3
Newly hired staff who receive breastfeeding promotion training	2.2
Question Topics with the Five Lowest Estimates	
Staff provide in-hospital breastfeeding support	0.2
Staff are trained on using food packages to promote breastfeeding	0.2
Agency operates a peer counseling program	0.2
Breastfeeding promotion features in clinics are in a formal policy	0.2
Breastfeeding aids issuance procedures are in a formal policy	0.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,658$). Tabulations are unweighted.

Exhibit E.3. WIC BPI Part 2 Questions with the Highest and Lowest Burden Estimates for State Agencies

	Mean Minutes
Question Topics with the Five Highest Estimates	
Percentages of infants on fully, partially, and non-breastfeeding food packages and total number of infants	13.1
Most recent estimate of other breastfeeding measure, who is included in it, and the months over which agency collected data included in the estimate	10.7
Percentage of infants breastfed exclusively for at least three months, total number of infants, and population represented in estimate	7.4
Question closest to how clinic staff ask about exclusivity	5.7
Rating of difficulty for producing breastfeeding estimates	4.4
Question Topics with the Five Lowest Estimates^a	
Survey data can be linked to participant records in the WIC Information System	0.3
Agency-administered survey is basis for separate data system	0.3
Agency collects information on initiation from source other than parent or caregiver	0.3
Agency stores information on current breastfeeding	0.2
Agency-administered survey targets entire group or sample	0.2

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 84$). Tabulations are unweighted.

^a Excludes one page visited by zero State agencies and one page visited by only one State agency.

Exhibit E.4. WIC BPI Part 2 Questions with the Highest and Lowest Burden Estimates for Local Agencies

	Mean Minutes
Question Topics with the Five Highest Estimates	
Percentages of infants on fully, partially, and non-breastfeeding food packages and total number of infants	10.1
Percentage of infants breastfed exclusively for at least three months, total number of infants, and population represented in estimate	6.0
Most recent estimate of other breastfeeding measure, who is included in it, and the months over which agency collected data included in the estimate ^a	5.5
Rating of difficulty for producing breastfeeding estimates	4.3
Population included in estimate of average length of time infants were exclusively breastfed	4.0
Question Topics with the Five Lowest Estimates	
Agency-administered survey targets entire group or sample	0.2
Clinic staff ask about current breastfeeding to determine initiation	0.2
Clinic staff ask about ever breastfed to determine initiation	0.2
Survey data can be linked to participant records in the WIC Information System	0.3
Estimate of mean length of exclusivity includes only infants no longer breastfeeding exclusively	0.3

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 1,633$). Tabulations are unweighted.

^a The WIC BPI asked for up to three other breastfeeding measures. A second estimate question had an average burden of 4.7 minutes. We excluded it from this table to report on five unique questions.

Exhibit E.5. Part 1 Breakoffs, by Module

	Number of Local Agencies
Module A: Agency and Staff Overview	5
Module B: Staff Training	5
Module C: Participant Breastfeeding Education	3
Module D: Peer Counseling	3
Module H: Food Package Issuance	3
Module G: Breastfeeding Aids	2
Module L: Other Policies and Practices	2
Module E: Prenatal Participant Contact	1
Module J: Outreach Activities	1
Module K: The Clinic Environment	1

Source: WIC Breastfeeding Policy Inventory Study ($n_{LA} = 26$). Tabulations are unweighted.

Note: A total of 1,763 State and local agencies accessed Part 1 of the survey. Of the 26 local agency breakoffs, 8 were sufficient partials and included in analyses.

Exhibit E.6. Part 2 Breakoffs, by Module

	Number of State and Local Agencies
Module M: WIC Data Systems and Data Linkages	7
Module N: Breastfeeding Measures Overview	6
Module O: Breastfeeding Initiation Measurement	3
Module P: Breastfeeding Duration Measurement	1
Module Q: Breastfeeding Exclusivity Measurement	7
Module R: Breastfeeding Intensity Measurement	4
Module S: Current Breastfeeding Estimates	41
Module T: Breastfeeding Data Collection	4

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 2$; $n_{LA} = 71$). Tabulations are unweighted.

Note: A total of 1,676 State and local agencies accessed Part 2 of the survey. Of the 2 State and 71 local agency breakoffs, 42 were sufficient partials and included in analyses.

Exhibit E.7. Most Common Patterns in Which Agencies Completed the Part 1 Policies and Practices Modules

	Module Order												Percentage of State Agencies ($n_{SA} = 87$)
	1	2	3	4	5	6	7	8	9	10	11	12	
Pattern 1	A	B	C	D	E	F	G	H	I	J	K	L	28.7
Pattern 2	A	B	C	D	G	H	I	J	L	n.a.	n.a.	n.a.	28.7
Pattern 3	A	B	C	E	F	G	H	I	J	K	L	n.a.	2.3
Pattern 4	A	B	C	D	G	I	J	H	L	n.a.	n.a.	n.a.	2.3
Pattern 5	A	B	C	G	H	I	J	D	L	n.a.	n.a.	n.a.	2.3
Pattern 6	A	D	B	C	G	H	I	J	L	n.a.	n.a.	n.a.	2.3
Pattern 7	A	G	B	C	D	E	F	H	I	J	K	L	2.3
													Percentage of Local Agencies ($n_{LA} = 1,650$)
Pattern 1	A	B	C	D	E	F	G	H	I	J	K	L	49.9
Pattern 2	A	B	C	E	F	G	H	I	J	K	L	n.a.	23.1
Pattern 3	A	D	B	C	E	F	G	H	I	J	K	L	1.5
Pattern 4	A	C	B	D	E	F	G	H	I	J	K	L	0.9
Pattern 5	A	B	C	D	E	F	G	I	J	K	H	L	0.7
Pattern 6	A	B	C	D	E	G	H	I	J	K	F	L	0.7
Pattern 7	A	K	B	C	D	E	F	G	H	I	J	L	0.7
Pattern 8	A	H	B	C	D	E	F	G	I	J	K	L	0.7

Source: WIC Breastfeeding Policy Inventory Study ($n_{SA} = 87$; $n_{LA} = 1,650$). Tabulations are unweighted.

n.a. = not applicable.

APPENDIX F
SURVEY INSTRUMENTS

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Part 1 for State WIC Agencies

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SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN BREASTFEEDING POLICY INVENTORY (WIC BPI)

Part 1: Policies and Practices

February 28, 2013

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB number. The valid OMB control number for this information collection is 0584-0574. The time required to complete this information collection is estimated to average 0.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

A. AGENCY AND STAFF OVERVIEW

This section provides an overview of your agency and agency staff. Please answer these questions about your State agency only, not for the local agencies within your State.

A1. Does your State WIC agency provide direct services to participants?

1 Yes

0 No

If you responded "Yes" to A1, please respond to all of the questions in this survey. If you responded "No" to A1, please respond to only the following questions:

A6

A7

A8

A12

A13

A14

B1

B2

B4

B6

C2

H1

J3

J4

J5

L3

L4

L5

L6

L7

A2. How many clinic sites does your agency directly operate?

|_|_|_| CLINIC SITES

A3. How many of your agency’s clinic sites are hospital-based? *If no sites are hospital-based, enter “0.”*

|_|_|_| HOSPITAL-BASED CLINIC SITES

A4. If your agency has more than one clinic site, how many miles from your agency’s administrative office is your closest or only clinic site located?

|_|_|_|.|_| MILES

A5. If your agency has more than one clinic site, how many miles from your agency’s administrative office is your farthest clinic site located?

|_|_|_|.|_| MILES

Check here if your agency has only one clinic site.

A6. Do local agencies in your State operate peer counseling programs?

1 Yes

0 No

A7. Does your State have a State WIC breastfeeding committee, group or workshop that develops or oversees WIC breastfeeding policies and practices?

1 Yes

0 No

A8. For each paid staff position listed below, please indicate the number of full-time equivalents (FTEs) currently serving in each position within your State agency. *If a person divides her time across more than one title, please allocate her FTEs to each category according to how she divides her time. If a position is currently unfilled, enter “0.”*

FTEs

a. Breastfeeding Coordinator |_|_|_|_|.|_|_|_|

b. Peer Counseling Program Coordinator..... |_|_|_|_|.|_|_|_|

c. Peer Counselor |_|_|_|_|.|_|_|_|

d. WIC Designated Breastfeeding Expert |_|_|_|_|.|_|_|_|

A9. How many people are currently serving as peer counselors with your agency? *If none, please enter “0”.*

|_|_|_| PEER COUNSELORS

A10. Across all staff at your local agency, about how many full-time equivalents (FTEs) provide breastfeeding services?

|_|_|_|.|_| FTEs

A11. Does your agency provide breastfeeding support groups to WIC participants?

- 1 Yes, at all clinic sites
- 2 Yes, at some clinic sites
- 0 No

A12. Does your agency have any policies that exceed federal requirements for WIC programs that address any of the following topics? *If the State policies are identical to the federal requirements, mark "no."*

Select one per row

	YES	NO
a. Staff training	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Participant breastfeeding education	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Peer counseling	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Prenatal participant contact	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Postpartum participant contact	1 <input type="checkbox"/>	0 <input type="checkbox"/>
f. Breastfeeding aids	1 <input type="checkbox"/>	0 <input type="checkbox"/>
g. Food package issuance	1 <input type="checkbox"/>	0 <input type="checkbox"/>
h. Breastfeeding referrals and coordination	1 <input type="checkbox"/>	0 <input type="checkbox"/>
i. Outreach activities	1 <input type="checkbox"/>	0 <input type="checkbox"/>
j. The clinic environment	1 <input type="checkbox"/>	0 <input type="checkbox"/>

A13. Does your State agency assess the outcomes of local agencies' breastfeeding policies and practices? For example, does your agency determine whether agencies with specific practices have better breastfeeding initiation rates? *Please do not include USDA management evaluation activities in your response.*

- 1 Yes
- 0 No

A14. IF A13=1: How often does your State agency assess the outcomes of local agencies' breastfeeding policies and practices?

- 1 More than once a year
- 2 Once a year
- 3 Less than once a year
- 4 No set schedule

B. STAFF TRAINING

In this section, we will ask you about your agency's procedures for training agency staff. First, we will ask about the training that new employees complete, and then we will ask about ongoing training or continuing education activities. Please answer these questions about training staff at your State agency only. Do not include training staff at the local agencies within your State.

B1. Which of the following agency staff receive breastfeeding promotion training when they are newly hired?

SELECT ALL THAT APPLY

- 1 Clerical or support staff
- 2 Competent Professional Authorities (CPAs) / Certifying Authorities (CAs)
- 3 Peer counselors
- 4 WIC designated breastfeeding experts
- 5 Breastfeeding coordinators
- 6 Nutritionists

B2. Who developed the breastfeeding-related training your agency uses for new hires?

SELECT ALL THAT APPLY

- 1 Our own or another local WIC agency
- 2 Our own or another State WIC agency
- 3 USDA, Food and Nutrition Service (for example, *Using Loving Support to Grow and Glow*)
- 4 A breastfeeding support organization
- 5 An educational or public health institution (for example, a university)
- 6 A vendor

B3. Are your agency's new employee breastfeeding training procedures written down in a formal policy?

- 1 Yes
- 0 No

B4. Which of the following staff receive ongoing breastfeeding training?

SELECT ALL THAT APPLY

- 1 Clerical or support staff
- 2 Competent Professional Authorities (CPAs) / Certifying Authorities (CAs)
- 3 Peer counselors
- 4 WIC designated breastfeeding experts
- 5 Breastfeeding coordinators
- 6 Nutritionists
- 0 None of these

B5. How often must staff complete ongoing breastfeeding training? If the frequency varies by position, please select the most frequent option. (If your agency does not have a staff category listed below, please leave that row blank.)

Select one per row

	Monthly	Quarterly	Twice per year	Once per year	Less often than once per year	No set schedule
a. Clerical or support staff	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
b. CPAs/CAs.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
c. Peer counselors.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
d. WIC designated breastfeeding experts.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
e. Breastfeeding coordinators ...	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
f. Nutritionists.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>

B6. Who developed the content your agency uses for ongoing breastfeeding training?

SELECT ALL THAT APPLY

- 1 Our own or another local WIC agency
- 2 Our own or another State WIC agency
- 3 USDA, Food and Nutrition Service (for example, *Using Loving Support to Grow and Glow*)
- 4 A breastfeeding support organization
- 5 An educational or public health institution (for example, a university)
- 6 A vendor

B7. Which of the following credentials are held by at least one member of your breastfeeding staff?

SELECT ALL THAT APPLY

- 1 International Board Certified Lactation Consultant (IBCLC)
- 2 Certified Lactation Educator (CLE)
- 3 Certified Lactation Counselor (CLC)
- 4 Other credential in lactation management
Specify _____
- 5 None of these

B8. Are any of your agency's staff trained on using food packages to promote breastfeeding?

1 Yes

0 No

B9. IF B8=1: Does this training specifically address using food packages to promote exclusive breastfeeding?

1 Yes

0 No

C. PARTICIPANT BREASTFEEDING EDUCATION

The following questions are about breastfeeding education offered to WIC participants. Please answer these questions about your State agency only, not for the local agencies within your State.

C1. Who developed the content your agency uses for participants' breastfeeding education?

SELECT ALL THAT APPLY

- 1 Our own or another local WIC agency
- 2 Our own or another State WIC agency
- 3 USDA, Food and Nutrition Service
- 4 A breastfeeding support organization

Specify _____

- 5 An external educational or public health institution (for example, a university)

Specify _____

- 6 An external vendor

- d Don't know

C2. How often does your State agency update participant breastfeeding education materials?

SELECT ONE ONLY

- 1 More than once per year
- 2 Once per year
- 3 Once every two years
- 4 Less than once every two years
- 5 No set schedule
- 6 Our State agency does not update participant breastfeeding education materials

C3. In which languages does your agency offer breastfeeding education for participants?

SELECT ALL THAT APPLY

- 1 English
- 2 Spanish
- 3 Chinese
- 4 French
- 5 Korean
- 6 A Native North American language
- 7 Vietnamese
- 8 Language(s) other than those listed above

Specify _____

C4. In which of the following formats is breastfeeding education delivered to participants?

SELECT ALL THAT APPLY

- 1 In-person group sessions
- 2 In-person individual sessions
- 3 Print materials
- 4 Telephone
- 5 Computer in the clinic
- 6 Website
- 7 Email
- 8 Instant messaging service, with or without video (for example, Skype, FaceTime, Google Chat, Yahoo! Messenger)
- 9 Text messages

C5. When do pregnant participants typically receive in-person breastfeeding education? *Please include breastfeeding education delivered by peer counselors in your response, if applicable.*

SELECT ALL THAT APPLY

- 1 Whenever participants request it
- 2 At each certification visit
- 3 At each clinic visit
- 4 Twice per certification period
- 5 Quarterly
- 6 Monthly
- 7 Other

C6. When do postpartum participants typically receive in-person breastfeeding education? *Please include breastfeeding education delivered by peer counselors in your response, if applicable.*

SELECT ALL THAT APPLY

- 1 Whenever participants request it
- 2 At each certification visit
- 3 At each clinic visit
- 4 Twice per certification period
- 5 Quarterly
- 6 Monthly
- 7 Other

C7. What techniques does your agency use for in-person breastfeeding education sessions with participants?

SELECT ALL THAT APPLY

- 1 Lecture or presentation
- 2 Motivational interviewing
- 3 Cultural tailoring of the content
- 4 Practice or role playing
- 5 Facilitated discussion
- 6 Participants set the agenda

D. PEER COUNSELING

Questions in this section are about peer counseling. If local WIC agencies in your State do not have a peer counseling program (question A6=0), please skip to Section E.

D1. What number or percentage of your clinic sites currently have peer counselors? Please answer by writing either the number of sites OR the percentage of sites.

|_|_|_| NUMBER

or

|_|_|_|.|_| PERCENTAGE

D2. Do pregnant participants participate in the peer counseling program?

1 Yes

0 No

D3. About what percentage of pregnant and postpartum participants across your clinic sites are enrolled in the peer counseling program?

|_|_|_|.|_| PERCENTAGE

D4. Is enrollment in the peer counseling program automatic?

1 Yes

0 No

D5. How are participants enrolled in the peer counseling program?

SELECT ALL THAT APPLY

1 Enrollment is offered at the prenatal certification visit

2 Enrollment is offered at the postpartum certification or recertification visit

3 Participants request to be enrolled

4 Participants are enrolled only when peer counselors can add to their caseload

5 Participants are randomly selected for participation

6 Participants are referred if they are experiencing breastfeeding problems

D6. For each of the following prenatal and postpartum time periods, what is the minimum frequency of contact attempts a peer counselor will make with program participants?

Select one per row

	Weekly	Monthly	Other (specify)
a. Prenatal	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/> _____
b. First week postpartum	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/> _____
c. Two to four weeks postpartum	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/> _____
d. Five to 12 weeks postpartum	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/> _____
e. Thirteen to 24 weeks postpartum	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/> _____

E. PRENATAL PARTICIPANT CONTACT

Questions in this section are about breastfeeding-related contacts with pregnant WIC participants. Questions about postpartum contacts are in the next section. Earlier, you indicated that your State WIC agency provides direct services to participants. Please answer these questions about your own agency's policies and practices, not about the local agencies within your State. These next questions are about any additional elements that promote breastfeeding in your clinic site or sites. **If your State agency does not provide direct services to participants (question A1=0), please skip to Section G.**

E1. When a pregnant woman enrolls in WIC, how is breastfeeding promoted?

SELECT ALL THAT APPLY

- 1 Give her a breastfeeding promotion kit
- 2 Enroll her in the peer counselor program
- 3 Include her in prenatal breastfeeding education classes
- 4 Offer her participation in a breastfeeding support group
- 5 Provide individual breastfeeding counseling
- 6 Give her information about the greater quantity or variety of foods in the fully breastfeeding food package
- 7 Other
Specify _____

E2. In the first, second, and third trimesters, how often do most pregnant participants receive contacts that include breastfeeding promotion and support? *Please include contacts with a peer counselor in your response, if applicable?*

Select one per row

	Zero times per trimester	Once per trimester	Twice per trimester	Monthly	More than once per month but not weekly	Weekly
a. First trimester	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
b. Second trimester	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
c. Third trimester	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

E3. In which of the following locations may interactions with pregnant participants take place? *Please include contacts with a peer counselor in your response, if applicable. Do not include appointment reminders in your response.*

SELECT ALL THAT APPLY

- 1 Clinic
- 2 Nutrition education classes
- 3 Breastfeeding support groups
- 4 Participants' homes
- 5 Telephone
- 6 Hospitals
- 7 Other off-site locations

Specify _____

F. POSTPARTUM PARTICIPANT CONTACT

Questions in this section are about breastfeeding-related contacts with postpartum WIC participants. Earlier, you indicated that your State WIC agency provides direct services to participants. Please answer these questions about your own agency's policies and practices, not about the local agencies within your State. **If your State agency does not provide direct services to participants (question A1=0), please skip to Section G.**

F1. After a pregnant WIC participant has given birth, who initiates contact, the participant or your agency?

Select one per row

	YES	NO
a. Participant notifies agency	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Agency contacts participant around her expected date of delivery	1 <input type="checkbox"/>	0 <input type="checkbox"/>

F2. IF F1a=1: Within how many days of participants' expected date of delivery does your agency try to contact them?

|_|_| DAYS

F3. IF F1b=1: Which agency staff typically contact participants after delivery? Please include contacts with a peer counselor in your response, if applicable.

SELECT ALL THAT APPLY

- 1 Clerical or support staff
- 2 Competent Professional Authorities (CPAs) / Certifying Authorities (CAs)
- 3 Peer counselors
- 4 WIC designated breastfeeding experts
- 5 Breastfeeding coordinators
- 6 Nutritionists

F4. When a woman enrolls in WIC after giving birth, how is breastfeeding promoted?

SELECT ALL THAT APPLY

- 1 Conduct a breastfeeding assessment
- 2 Give her a breastfeeding promotion kit
- 3 Enroll her in the peer counseling program
- 4 Include her in breastfeeding education classes
- 5 Offer her participation in a breastfeeding support group
- 6 Provide individual breastfeeding counseling
- 7 Give her information about the greater quantity and variety of foods in the fully breastfeeding food package
- 8 Other

Specify _____

F5. In the first week postpartum, how many contacts do most participants at your agency receive? Please include contacts with a peer counselor in your response, if applicable.

|_|_| CONTACTS

F6. In the first six months postpartum, what is the minimum number of contacts postpartum women at your agency receive? Please include contacts with a peer counselor in your response, if applicable

|_|_| CONTACTS

F7. In which of the following locations may interactions with postpartum participants take place? Please include contacts with a peer counselor in your response, if applicable. Do not consider appointment reminders as an interaction in this question.

SELECT ALL THAT APPLY

- 1 Clinic
- 2 Nutrition education classes
- 3 Breastfeeding support groups
- 4 Participants' homes
- 5 Telephone
- 6 Hospitals
- 8 Other off-site locations

Specify _____

G. BREASTFEEDING AIDS

Breastfeeding aids are items which directly support the initiation and continuation of breastfeeding. Allowable breastfeeding aids can be purchased with federal funds. In this section, we ask about your agency's policies and procedures for using breastfeeding aids. Please answer these questions about your State agency's policies and practices only, not about the local agencies within your State.

G1. Which of the following breastfeeding aids does your agency make available to WIC participants?

	<i>Select one per row</i>	
	YES	NO
a. Breast pumps	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Breast shells	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Nipple shields	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Nursing supplementers	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Breast milk storage bags	1 <input type="checkbox"/>	0 <input type="checkbox"/>

G2. Does your State agency maintain a list of breastfeeding aids from which local agencies must choose?

- 1 Yes
- 0 No

G4. IF G1a=1: Does your agency loan or give each of the following types of breast pumps to participants?

	No, agency does not distribute pump type	Yes, loans	Yes, gives
a. Manual pumps	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b. Pedal pumps	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c. Single-user electric pumps	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Multi-user electric/hospital grade pumps	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

G5. IF YOU SELECTED MORE THAN ONE OPTION IN G4: Which pump type does your agency distribute most often?

SELECT ONE ONLY

- 1 Manual pumps
- 2 Pedal pumps
- 4 Single-user electric pumps
- 5 Multi-user electric / hospital grade pumps

G6. IF G1a=1: What are the issuance conditions for the pump type that your agency issues? If your agency distributes multiple pump types, please respond for the pump type that your agency issues most often.

SELECT ALL THAT APPLY

- 1 All mothers who request one
- 2 All mothers certified as fully or partially breastfeeding
- 3 All mothers certified as fully breastfeeding only
- 4 All mothers committed to exclusive breastfeeding for a minimum duration
- 5 Mothers returning to work or school
- 6 Mother/infant separation (other than work or school)
- 7 Mother or infant feeding problem
- 8 Other
Specify _____

G7. IF G1a=1: Which of the following other breast pump issuance policies or practices does your agency follow? Please mark "yes" even if the policy or practice applies only under certain conditions.

	YES	NO
a. Breast pump training may count as a nutrition education contact	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Participants are required to complete breast pump training	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Clinic staff must follow up with participants who have been issued a breast pump.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Breast pumps may be issued to a participant proxy	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Participants may be required to make a deposit before a breast pump is issued	1 <input type="checkbox"/>	0 <input type="checkbox"/>
f. Participants may purchase a breast pump from our agency for a cost lower than retail price	1 <input type="checkbox"/>	0 <input type="checkbox"/>
g. Third parties (e.g., clinics or hospitals) are contracted to issue breast pumps to WIC participants	1 <input type="checkbox"/>	0 <input type="checkbox"/>

G8. IF G7e=1: How much does your agency charge as a deposit before a breast pump is issued?

\$|_____|_____|_____|._____|_____||_____||_____||_____||_____||_____||_____||

H. FOOD PACKAGE ISSUANCE

Federal guidance outlines detailed procedures for classifying participants and issuing food packages. This section asks about any additional policies or practices that agencies may follow when issuing food packages, including infant formula, to participants. Please answer these questions about your State agency's policies and practices only, not about the local agencies within your State.

H1. Under which circumstances does your agency allow formula to be issued to fully breastfeeding participants in the first month postpartum if participants request it?

SELECT ALL THAT APPLY

- 1 When a doctor prescribes formula
- 2 When the mother no longer wants to exclusively breastfeed
- 3 Never
- 4 Other

Specify _____

H2. What steps do clinic staff take when a participant on a fully breastfeeding food package requests formula?

SELECT ALL THAT APPLY

- 1 Formula is issued without any additional steps taken
- 2 Participant receives counseling about benefits of breastfeeding
- 3 Participant receives counseling about changing food packages
- 3 A minimum amount of formula is provided based on assessment
- 4 Other

Specify _____

I. BREASTFEEDING REFERRALS AND COORDINATION

WIC clinics may refer participants to specialized WIC staff or to other health and social service providers when warranted. In this section, we ask questions about breastfeeding referrals and coordination. Please answer these questions about your State agency's policies and practices only, not about the local agencies within your State.

I1. To which of the following individuals or organizations outside of your WIC agency may your staff refer participants for breastfeeding-related issues?

SELECT ALL THAT APPLY

- 1 Another WIC agency
- 2 Lactation professional
- 3 Breastfeeding support organization
- 4 Health care provider
- 5 Breast pump purchase/loan program
- 6 Non-WIC-operated breastfeeding helpline
- 7 Home visiting program
- 8 Staff do not refer participants outside our agency for breastfeeding-related issues

I2. Does your agency maintain a list of organizations or individuals that local agencies may use for referring participants with breastfeeding-related issues?

- 1 Yes
- 0 No

- Check here if staff do not refer participants outside your agency for breastfeeding related issues

I3. IF A1=1: Does your agency provide helpline services to WIC participants?

Select one per row

	YES	NO
a. Our own agency-operated breastfeeding helpline	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. State WIC agency-operated breastfeeding helpline.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

I4. IF A1=0: Does your agency operate a breastfeeding helpline?

- 1 Yes
- 0 No

J. OUTREACH ACTIVITIES

Questions in this section are about any outreach activities your agency does. Please answer these questions about the outreach activities of your State agency only, not about local agencies within your State.

J1. Do your agency's staff participate in teaching prenatal classes in a hospital? *If your agency has a peer counselor, please do not include contacts with a peer counselor in your response.*

- 1 Yes
0 No

J2. Do your agency's staff provide postpartum in-hospital breastfeeding support? *If your agency has a peer counselor, please include contacts with a peer counselor in your response.*

- 1 Yes
0 No

J3. Has your agency planned or participated in any of the following to promote breastfeeding in the past year?

SELECT ALL THAT APPLY

- 1 Social marketing campaign
2 World Breastfeeding Week event
3 Community health fair
4 Peer counseling program promotion in the community
5 Other

Specify _____

- 6 None of these

J4. Does your agency promote breastfeeding through outreach to or collaborations with each of the following?

Select one per row

	YES	NO
a. Hospitals, clinics, or doctors' offices.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Worksites.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Child care facilities.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Faith based organizations	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Schools.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

J5. IF YOU MARKED “YES” TO ANY IN J4: Does your agency have a memorandum of understanding in place with any of the following in order to promote breastfeeding through outreach or collaborations?

Select one per row

	YES	NO
a. Hospitals, clinics, or doctors' offices.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Worksites.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Child care facilities.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Faith based organizations	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Schools.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

K. THE CLINIC ENVIRONMENT

These next questions are about any additional elements that promote breastfeeding in your clinic site or sites. **If your State agency does not provide direct services to participants (question A1=0), please skip to Section L.**

K1. As part of their routine interactions with WIC participants, which of the following are clinic staff instructed to do?

	<i>Select one per row</i>	
	YES	NO
a. Assume all postpartum participants initiated breastfeeding	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Treat exclusive breastfeeding as the norm	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Respect each mother's infant feeding decision.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Encourage participants to breastfeed anywhere in the clinic.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Use breastfeeding-friendly language.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
f. Offer breastfeeding support to participants on a walk-in basis	1 <input type="checkbox"/>	0 <input type="checkbox"/>
g. Promote breastfeeding for as long as possible or preferred by both the participant and her infant.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

K3. Which of the following are routinely available in your agency's clinics?

SELECT ALL THAT APPLY

- 1 Posters showing breastfeeding
- 2 Informational bulletin boards on breastfeeding
- 3 Breastfeeding materials featuring ethnically diverse parents and infants
- 4 Chairs, pillows, foot stools, or other furniture to make breastfeeding mothers more comfortable
- 5 Private space for breastfeeding such as lactation rooms or cubbies
- 6 None of these

L. OTHER POLICIES AND PRACTICES

These final questions are about any other policies or practices your agency uses to promote breastfeeding that were not already covered in the survey, as well as policies and practices you would recommend to other agencies or would like to implement in your own agency.

L1. Which of the following incentives does your agency provide to participants to initiate or continue breastfeeding?

Select one per row

	YES	NO
a. Items without monetary value such as certificates.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Items of nominal value	1 <input type="checkbox"/>	0 <input type="checkbox"/>

L2. IF L1b=1: What items of nominal value does your agency provide as incentives to participants to initiate or continue breastfeeding?

L3. Please briefly describe any additional policies or practices that your local agency uses to promote breastfeeding that were not already covered elsewhere in this survey.

L4. If you were to recommend one of your State agency's existing breastfeeding policies or practices to other WIC agencies, what would you recommend, and why?

L5. If you could implement one policy at your State agency to improve participants' breastfeeding, what would it be? What barriers do you face implementing that policy?

L6. Please share any additional comments you have about your agency's breastfeeding policies and practices.

L7. In a few months, we will contact your agency to complete Part 2 of the WIC Breastfeeding Policy Inventory. Part 2 has questions about breastfeeding data systems, measurement, and reporting. Please provide the name, email address, and telephone number of the person in your agency who can answer these questions. *If you are the person who can answer the questions in Part 2 of the survey, please provide your own contact information*

First Name: _____

Last Name: _____

Email Address: _____

Phone Number: _____

Thank you for completing Part 1 of the WIC Breastfeeding Policy Inventory!

Please submit your responses in the web survey by visiting <https://www.wicbpi.org> and entering your agency username and password. Once you submit your survey online, you will not be able to make any additional changes.

If you need assistance, please contact the helpdesk at survey@wicbpi.org or 855-282-8493 (toll-free).

Part 1 for Local WIC Agencies

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SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN BREASTFEEDING POLICY INVENTORY (WIC BPI)

Part 1: Policies and Practices

February 28, 2013

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB number. The valid OMB control number for this information collection is 0584-0574. The time required to complete this information collection is estimated to average 0.9 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

A. AGENCY AND STAFF OVERVIEW

This section provides an overview of your agency and agency staff.

A2. How many clinic sites does your agency directly operate?

|_|_|_| CLINIC SITES

A3. How many of your agency's clinic sites are hospital-based? *If no sites are hospital-based, enter "0."*

|_|_|_| HOSPITAL-BASED CLINIC SITES

A4. How many miles from your agency's administrative office is your closest or only clinic site located?

|_|_|_|.|_| MILES

A5. If your agency has more than one clinic site, how many miles from your agency's administrative office is your farthest clinic site located?

|_|_|_|.|_| MILES

Check here if your agency has only one clinic site.

A6. Does your agency operate a peer counseling program?

1 Yes

0 No

A8. For each paid staff position listed below, please indicate the number of full-time equivalents (FTEs) currently serving in each position within your local agency. *If a person divides her time across more than one title, please allocate her FTEs to each category according to how she divides her time. If a position is currently unfilled, enter "0."*

FTEs

a. Breastfeeding Coordinator |_|_|_|_|.|_|_|_|

b. Peer Counseling Program Coordinator |_|_|_|_|.|_|_|_|

c. Peer Counselor |_|_|_|_|.|_|_|_|

d. WIC Designated Breastfeeding Expert |_|_|_|_|.|_|_|_|

A9. How many people are currently serving as peer counselors with your agency? *If none, please enter "0"*.

|_|_|_| PEER COUNSELORS

A10. Across all staff at your local agency, about how many full-time equivalents (FTEs) provide breastfeeding services?

|_|_|_|.|_| FTEs

A11. Does your agency provide breastfeeding support groups to WIC participants?

1 Yes, at all clinic sites

2 Yes, at some clinic sites

0 No

B. STAFF TRAINING

In this section, we will ask you about your agency's procedures for training agency staff. First, we will ask about the training that new employees complete, and then we will ask about ongoing training or continuing education activities.

B1. Which of the following agency staff receive breastfeeding promotion training when they are newly hired?

SELECT ALL THAT APPLY

- 1 Clerical or support staff
- 2 Competent Professional Authorities (CPAs) / Certifying Authorities (CAs)
- 3 Peer counselors
- 4 WIC designated breastfeeding experts
- 5 Breastfeeding coordinators
- 6 A vendor

B2. Who developed the breastfeeding-related training your agency uses for new hires?

SELECT ALL THAT APPLY

- 1 Our own or another local WIC agency
- 2 Our own or another State WIC agency
- 3 USDA, Food and Nutrition Service (for example, *Using Loving Support to Grow and Glow*)
- 4 A breastfeeding support organization
- 5 An educational or public health institution (for example, a university)
- 6 Nutritionists

B3. Are your agency's new employee breastfeeding training procedures written down in a formal policy?

- 1 Yes
- 0 No

B4. Which of the following staff receive ongoing breastfeeding training?

SELECT ALL THAT APPLY

- 1 Clerical or support staff
- 2 Competent Professional Authorities (CPAs) / Certifying Authorities (CAs)
- 3 Peer counselors
- 4 WIC designated breastfeeding experts
- 5 Breastfeeding coordinators
- 6 Nutritionists
- 0 None of these

B5. How often must staff complete ongoing breastfeeding training? If the frequency varies by position, please select the most frequent option. (If your agency does not have a staff category listed below, please leave that row blank.)

Select one per row

	Monthly	Quarterly	Twice per year	Once per year	Less often than once per year	No set schedule
a. Clerical or support staff	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
b. CPAs/CAs.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
c. Peer counselors.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
d. WIC designated breastfeeding experts.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
e. Breastfeeding coordinators	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
f. Nutritionists.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>

B6. Which of the following staff receive ongoing breastfeeding training?

SELECT ALL THAT APPLY

- 1 Our own or another local WIC agency
- 2 Our own or another State WIC agency
- 3 USDA, Food and Nutrition Service (for example, *Using Loving Support to Grow and Glow*)
- 4 A breastfeeding support organization
- 5 An educational or public health institution (for example, a university)
- 6 A vendor

B7. Which of the following credentials are held by at least one member of your breastfeeding staff?

SELECT ALL THAT APPLY

- 1 International Board Certified Lactation Consultant (IBCLC)
- 2 Certified Lactation Educator (CLE)
- 3 Certified Lactation Counselor (CLC)
- 4 Other credential in lactation management
Specify _____
- 5 None of these

B8. Are any of your agency's staff trained on using food packages to promote breastfeeding?

1 Yes

0 No

B9. IF B8=1: Does this training specifically address using food packages to promote exclusive breastfeeding?

1 Yes

0 No

NA Does Not Apply

B10. Are your agency's ongoing breastfeeding training procedures written down in a formal policy?

1 Yes

0 No

C. PARTICIPANT BREASTFEEDING EDUCATION

The following questions are about breastfeeding education offered to WIC participants.

C1. Who developed the content your agency uses for participants' breastfeeding education?

SELECT ALL THAT APPLY

- 1 Our own or another local WIC agency
- 2 Our own or another State WIC agency
- 3 USDA, Food and Nutrition Service
- 4 A breastfeeding support organization
Specify _____
- 5 An external educational or public health institution (for example, a university)
Specify _____
- 6 An external vendor
- d Don't know

C2. How often does your local agency update participant breastfeeding education materials?

SELECT ONE ONLY

- 1 More than once per year
- 2 Once per year
- 3 Once every two years
- 4 Less than once every two years
- 5 No set schedule
- 6 Our State agency does not update participant breastfeeding education materials

C3. In which languages does your agency offer breastfeeding education for participants?

SELECT ALL THAT APPLY

- 1 English
- 2 Spanish
- 3 Chinese
- 4 French
- 5 Korean
- 6 A Native North American language
- 7 Vietnamese
- 8 Language(s) other than those listed above
Specify _____

C4. In which of the following formats is breastfeeding education delivered to participants?

SELECT ALL THAT APPLY

- 1 In-person group sessions
- 2 In-person individual sessions
- 3 Print materials
- 4 Telephone
- 5 Computer in the clinic
- 6 Website
- 7 Email
- 8 Instant messaging service, with or without video (for example, Skype, FaceTime, Google Chat, Yahoo! Messenger)
- 9 Text messages

C5. When do pregnant participants typically receive in-person breastfeeding education? Please include breastfeeding education delivered by peer counselors in your response, if applicable.

SELECT ALL THAT APPLY

- 1 Whenever participants request it
- 2 At each certification visit
- 3 At each clinic visit
- 4 Twice per certification period
- 5 Quarterly
- 6 Monthly
- 7 Other

Specify _____

C6. When do postpartum participants typically receive in-person breastfeeding education? Please include breastfeeding education delivered by peer counselors in your response, if applicable.

SELECT ALL THAT APPLY

- 1 Whenever participants request it
- 2 At each certification visit
- 3 At each clinic visit
- 4 Twice per certification period
- 5 Quarterly
- 6 Monthly
- 7 Other

Specify _____

C7. What techniques does your agency use for in-person breastfeeding education sessions with participants?

SELECT ALL THAT APPLY

- 1 Lecture or presentation
- 2 Motivational interviewing
- 3 Cultural tailoring of the content
- 4 Practice or role playing
- 5 Facilitated discussion
- 6 Participants set the agenda

C8. Are your agency's ongoing breastfeeding training procedures written down in a formal policy?

- 1 Yes
- 0 No

D. PEER COUNSELING

Questions in this section are about peer counseling. **If your agency does not have a peer counseling program (question A6=0), please skip to Section E.**

D1. What number or percentage of your clinic sites currently have peer counselors? Please answer by writing either the number of sites OR the percentage of sites.

|_|_|_| NUMBER

or

|_|_|_|.|_| PERCENTAGE

D2. Do pregnant participants participate in the peer counseling program?

1 Yes

0 No

D3. About what percentage of pregnant and postpartum participants across your clinic sites are enrolled in the peer counseling program?

|_|_|_|.|_| PERCENTAGE

D4. Is enrollment in the peer counseling program automatic?

1 Yes

0 No

D5. How are participants enrolled in the peer counseling program?

SELECT ALL THAT APPLY

1 Enrollment is offered at the prenatal certification visit

2 Enrollment is offered at the postpartum certification or recertification visit

3 Participants request to be enrolled

4 Participants are enrolled only when peer counselors can add to their caseload

5 Participants are randomly selected for participation

6 Participants are referred if they are experiencing breastfeeding problems

D6. For each of the following prenatal and postpartum time periods, what is the minimum frequency of contact attempts a peer counselor will make with program participants?

Select one per row

	Weekly	Monthly	Other (<i>specify</i>)	
a. Prenatal	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	_____
b. First week postpartum	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	_____
c. Two to four weeks postpartum	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	_____
d. Five to 12 weeks postpartum	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	_____
e. Thirteen to 24 weeks postpartum.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	_____

D7. Are your agency's breastfeeding peer counselor program procedures written down in a formal policy?

- 1 Yes
- 0 No

E. PRENATAL PARTICIPANT CONTACT

Questions in this section are about breastfeeding-related contacts with pregnant WIC participants. Questions about postpartum contacts are in the next section.

E1. When a pregnant woman enrolls in WIC, how is breastfeeding promoted?

SELECT ALL THAT APPLY

- 1 Give her a breastfeeding promotion kit
- 2 Enroll her in the peer counselor program
- 3 Include her in prenatal breastfeeding education classes
- 4 Offer her participation in a breastfeeding support group
- 5 Provide individual breastfeeding counseling
- 6 Give her information about the greater quantity or variety of foods in the fully breastfeeding food package
- 7 Other
Specify _____

E2. In the first, second, and third trimesters, how often do most pregnant participants receive contacts that include breastfeeding promotion and support? *Please include contacts with a peer counselor in your response, if applicable?*

Select one per row

	Zero times per trimester	Once per trimester	Twice per trimester	Monthly	More than once per month but not weekly	Weekly
a. First trimester	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
b. Second trimester	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
c. Third trimester	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

E3. In which of the following locations may interactions with pregnant participants take place? *Please include contacts with a peer counselor in your response, if applicable. Do not include appointment reminders in your response.*

SELECT ALL THAT APPLY

- 1 Clinic
- 2 Nutrition education classes
- 3 Breastfeeding support groups
- 4 Participants' homes
- 5 Telephone
- 6 Hospitals
- 7 Other off-site locations (*specify*) _____

E4. Are your agency's prenatal participant contact procedures written down in a formal policy?

- 1 Yes
- 0 No

F. POSTPARTUM PARTICIPANT CONTACT

Questions in this section are about breastfeeding-related contacts with postpartum WIC participants.

F1. After a pregnant WIC participant has given birth, who initiates contact, the participant or your agency?

Select one per row

	YES	NO
a. Participant notifies agency	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Agency contacts participant around her expected date of delivery	1 <input type="checkbox"/>	0 <input type="checkbox"/>

F2. IF F1A=1: Within how many days of participants' expected date of delivery does your agency try to contact them?

|_|_| DAYS

F3. IF F1B=1: Which agency staff typically contact participants after delivery? Please include contacts with a peer counselor in your response, if applicable.

SELECT ALL THAT APPLY

- 1 Clerical or support staff
- 2 Competent Professional Authorities (CPAs) / Certifying Authorities (CAs)
- 3 Peer counselors
- 4 WIC designated breastfeeding experts
- 5 Breastfeeding coordinators
- 6 Nutritionists

F4. When a woman enrolls in WIC after giving birth, how is breastfeeding promoted?

SELECT ALL THAT APPLY

- 1 Conduct a breastfeeding assessment
- 2 Give her a breastfeeding promotion kit
- 3 Enroll her in the peer counseling program
- 4 Include her in breastfeeding education classes
- 5 Offer her participation in a breastfeeding support group
- 6 Provide individual breastfeeding counseling
- 7 Give her information about the greater quantity and variety of foods in the fully breastfeeding food package
- 8 Other

Specify _____

F5. In the first week postpartum, how many contacts do most participants at your agency receive?
Please include contacts with a peer counselor in your response, if applicable.

|_|_| CONTACTS

F6. In the first six months postpartum, what is the minimum number of contacts postpartum women at your agency receive?
Please include contacts with a peer counselor in your response, if applicable

|_|_| CONTACTS

F7. In which of the following locations may interactions with postpartum participants take place?
Please include contacts with a peer counselor in your response, if applicable. Do not consider appointment reminders as an interaction in this question.

SELECT ALL THAT APPLY

- 1 Clinic
- 2 Nutrition education classes
- 3 Breastfeeding support groups
- 4 Participants' homes
- 5 Telephone
- 6 Hospitals
- 7 Other off-site locations

Specify _____

F8. Are your agency's postpartum participant contact procedures written down in a formal policy?

- 1 Yes
- 0 No

G. BREASTFEEDING AIDS

Breastfeeding aids are items which directly support the initiation and continuation of breastfeeding. Allowable breastfeeding aids can be purchased with federal funds. In this section, we ask about your agency's policies and procedures for using breastfeeding aids.

G1. Which of the following breastfeeding aids does your agency make available to WIC participants?

	<i>Select one per row</i>	
	YES	NO
a. Breast pumps	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Breast shells	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Nipple shields	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Nursing supplementers	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Breast milk storage bags.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

G2. Does your agency choose breastfeeding aids only from an approved list?

- 1 Yes
0 No

G3. Are your agency's breastfeeding aids issuance practices written down in a formal policy?

- 1 Yes
0 No

G4. IF G1a=1: Does your agency loan or give each of the following types of breast pumps to participants?

	<i>Select one per row</i>		
	No, agency does not distribute pump type	Yes, loans	Yes, gives
a. Manual pumps	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b. Pedal pumps.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c. Single-user electric pumps	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Multi-user electric/hospital grade pumps.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

G5. IF YOU SELECTED MORE THAN ONE OPTION IN G4: Which pump type does your agency distribute most often?

SELECT ONE ONLY

- 1 Manual pumps
2 Pedal pumps
3 Single-user electric pumps
4 Multi-user electric / hospital grade pumps

G6. IF G1a=1: What are the issuance conditions for the pump type that your agency issues? If your agency distributes multiple pump types, please respond for the pump type that your agency issues most often.

SELECT ALL THAT APPLY

- 1 All mothers who request one
- 2 All mothers certified as fully or partially breastfeeding
- 3 All mothers certified as fully breastfeeding only
- 4 All mothers committed to exclusive breastfeeding for a minimum duration
- 5 Mothers returning to work or school
- 6 Mother/infant separation (other than work or school)
- 7 Mother or infant feeding problem
- 8 Other

Specify _____

G7. IF G1a=1: Which of the following other breast pump issuance policies or practices does your agency follow? Please mark "yes" even if the policy or practice applies only under certain conditions.

	YES	NO
a. Breast pump training may count as a nutrition education contact	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Participants are required to complete breast pump training	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Clinic staff must follow up with participants who have been issued a breast pump.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Breast pumps may be issued to a participant proxy	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Participants may be required to make a deposit before a breast pump is issued	1 <input type="checkbox"/>	0 <input type="checkbox"/>
f. Participants may purchase a breast pump from our agency for a cost lower than retail price	1 <input type="checkbox"/>	0 <input type="checkbox"/>
g. Third parties (e.g., clinics or hospitals) are contracted to issue breast pumps to WIC participants	1 <input type="checkbox"/>	0 <input type="checkbox"/>

G8. IF G7e=1: How much does your agency charge as a deposit before a breast pump is issued?

\$ |__|__|__| . |__|__| DEPOSIT CHARGE

H. FOOD PACKAGE ISSUANCE

Federal guidance outlines detailed procedures for classifying participants and issuing food packages. This section asks about any additional policies or practices that agencies may follow when issuing food packages, including infant formula, to participants.

H1. Under which circumstances does your agency allow formula to be issued to fully breastfeeding participants in the first month postpartum if participants request it?

SELECT ALL THAT APPLY

- 1 When a doctor prescribes formula
- 2 When the mother no longer wants to exclusively breastfeed
- 3 Never
- 4 Other

Specify _____

H2. What steps do clinic staff take when a participant on a fully breastfeeding food package requests formula?

SELECT ALL THAT APPLY

- 1 Formula is issued without any additional steps taken
- 2 Participant receives counseling about benefits of breastfeeding
- 3 Participant receives counseling about changing food packages
- 4 A minimum amount of formula is provided based on assessment
- 5 Other

Specify _____

H3. Are your agency's procedures for formula issuance to fully breastfeeding participants written down in a formal policy?

- 1 Yes
- 0 No

I. BREASTFEEDING REFERRALS AND COORDINATION

WIC clinics may refer participants to specialized WIC staff or to other health and social service providers when warranted. In this section, we ask questions about breastfeeding referrals and coordination.

11. To which of the following individuals or organizations outside of your WIC agency may your staff refer participants for breastfeeding-related issues?

SELECT ALL THAT APPLY

- 1 Another WIC agency
- 2 Lactation professional
- 3 Breastfeeding support organization
- 4 Health care provider
- 5 Breast pump purchase/loan program
- 6 Non-WIC-operated breastfeeding helpline
- 7 Home visiting program
- 8 Staff do not refer participants outside our agency for breastfeeding-related issues

12. Does your agency use a standardized list of organizations or individuals when referring participants with breastfeeding-related issues?

- 1 Yes
- 0 No
- Check here if staff do not refer participants outside your agency for breastfeeding related issues

13. Does your agency provide helpline services to WIC participants?

Select one per row

	YES	NO
a. Our own agency-operated breastfeeding helpline	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. State WIC agency-operated breastfeeding helpline.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

15. Are your agency's breastfeeding referrals and coordination practices written down in a formal policy?

- 1 Yes
- 0 No

J. OUTREACH ACTIVITIES

Questions in this section are about any outreach activities your agency does.

J1. Do your agency's staff participate in teaching prenatal classes in a hospital? *If your agency has a peer counseling program, please do not include contacts with a peer counselor in your response.*

- 1 Yes
- 0 No

J2. Do your agency's staff provide postpartum in-hospital breastfeeding support? *If your agency has a peer counseling program, please include contacts with a peer counselor in your response.*

- 1 Yes
- 0 No

J3. Has your agency planned or participated in any of the following to promote breastfeeding in the past year?

SELECT ALL THAT APPLY

- 1 Social marketing campaign
- 2 World Breastfeeding Week event
- 3 Community health fair
- 4 Peer counseling program promotion in the community
- 5 Other

Specify _____

- 6 None of these

J4. Does your agency promote breastfeeding through outreach to or collaborations with each of the following?

Select one per row

	YES	NO
a. Hospitals, clinics, or doctors' offices.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Worksites.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Child care facilities.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Faith based organizations	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Schools.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

J5. IF YOU MARKED “YES” TO ANY IN J4: Does your agency have a memorandum of understanding in place with any of the following in order to promote breastfeeding through outreach or collaborations?

Select one per row

	YES	NO
a. Hospitals, clinics, or doctors' offices.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Worksites.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Child care facilities.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Faith based organizations	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Schools.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

J6. Are your agency's outreach practices written down in a formal policy?

- 1 Yes
- 0 No

K. THE CLINIC ENVIRONMENT

These next questions are about any additional elements that promote breastfeeding in your clinic site or sites.

K1. As part of their routine interactions with WIC participants, which of the following are clinic staff instructed to do?

Select one per row

	YES	NO
a. Assume all postpartum participants initiated breastfeeding	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Treat exclusive breastfeeding as the norm	1 <input type="checkbox"/>	0 <input type="checkbox"/>
c. Respect each mother's infant feeding decision.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
d. Encourage participants to breastfeed anywhere in the clinic.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
e. Use breastfeeding-friendly language.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>
f. Offer breastfeeding support to participants on a walk-in basis	1 <input type="checkbox"/>	0 <input type="checkbox"/>
g. Promote breastfeeding for as long as possible or preferred by both the participant and her infant.....	1 <input type="checkbox"/>	0 <input type="checkbox"/>

K2. IF YOU MARKED "YES" TO ANY IN K1: Are guidelines for staff interactions with WIC participants written down in a formal policy?

- 1 Yes
0 No

K3. Which of the following are routinely available in your agency's clinics?

SELECT ALL THAT APPLY

- 1 Posters showing breastfeeding
2 Informational bulletin boards on breastfeeding
3 Breastfeeding materials featuring ethnically diverse parents and infants
4 Chairs, pillows, foot stools, or other furniture to make breastfeeding mothers more comfortable
5 Private space for breastfeeding such as lactation rooms or cubbies
6 None of these

K4. IF YOU MARKED ANY IN K3: Is the use of these breastfeeding promotion elements written down in a formal policy?

- 1 Yes
0 No

L. OTHER POLICIES AND PRACTICES

These final questions are about any other policies or practices your agency uses to promote breastfeeding that were not already covered in the survey, as well as policies and practices you would recommend to other agencies or would like to implement in your own agency.

L1. Which of the following incentives does your agency provide to participants to initiate or continue breastfeeding?

Select one per row

	YES	NO
a. Items without monetary value such as certificates	1 <input type="checkbox"/>	0 <input type="checkbox"/>
b. Items of nominal value	1 <input type="checkbox"/>	0 <input type="checkbox"/>

L2. IF L1b=1: What items of nominal value does your agency provide as incentives to participants to initiate or continue breastfeeding?

L3. Please briefly describe any additional policies or practices that your local agency uses to promote breastfeeding that were not already covered elsewhere in this survey.

L4. If you were to recommend one of your local agency's existing breastfeeding policies or practices to other WIC agencies, what would you recommend, and why?

L5. If you could implement one policy at your local agency to improve participants' breastfeeding, what would it be? What barriers do you face implementing that policy?

L6. Please share any additional comments you have about your agency's breastfeeding policies and practices.

L7. In a few months, we will contact your agency to complete Part 2 of the WIC Breastfeeding Policy Inventory. Part 2 has questions about breastfeeding data systems, measurement, and reporting. Please provide the name, email address, and telephone number of the person in your agency who can answer these questions. *If you are the person who can answer the questions in Part 2 of the survey, please provide your own contact information*

First Name: _____

Last Name: _____

Email Address: _____

Phone Number: _____

Thank you for completing Part 1 of the WIC Breastfeeding Policy Inventory!

Please submit your responses in the web survey by visiting <https://www.wicbpi.org> and entering your agency username and password. Once you submit your survey online, you will not be able to make any additional changes.

If you need assistance, please contact the helpdesk at survey@wicbpi.org or 855-282-8493 (toll-free).

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Part 2 for State and Local WIC Agencies

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SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN BREASTFEEDING POLICY INVENTORY

(WIC BPI)

Part 2: Breastfeeding Data Systems, Measures, and Reporting

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB number. The valid OMB control number for this information collection is 0584-0574. The time required to complete this information collection is estimated to average [State: 1.6/Local: 0.8] hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The study is being conducted for the U.S. Department of Agriculture, Food and Nutrition Service (FNS). The purpose of the study is to understand State and local WIC agencies' breastfeeding measures as well as their breastfeeding promotion policies and practices. Information from the WIC Breastfeeding Policy Inventory will help FNS as well as State and local WIC agencies learn more about nationwide efforts to promote breastfeeding among WIC participants. The WIC BPI is not an audit or compliance check. FNS has authority to conduct this study under the Healthy, Hunger-Free Kids Act of 2010 (P.L. 111-296). Your agency's participation is required by law.

The Agency Director, Breastfeeding Coordinator, or other knowledgeable staff should complete this survey. We encourage you to circulate the survey among appropriate staff, if necessary, to obtain all responses. During this part of the survey, we will ask about:

- The breastfeeding measures your agency collects, such as initiation, duration, exclusivity, and intensity
- Current estimates for some of the measures your agency collects
- How breastfeeding information is stored and to whom it is reported

You may find it helpful to gather this information before starting the survey, but you will be able to save your progress and return at a later time if you need to.

Before each question you will see a gray box containing instructions relating to the question. Please read these instructions carefully, as they will help you identify if you should respond to the question or skip to a later question.

Your agency will be identifiable to FNS in the survey data, but neither your agency nor individual respondents will be named in any publications. Please refer to the frequently asked questions document for more information.

WIC Data Systems and Data Linkages

In this and the following sections, we will refer to the computer system used to certify participants as the **WIC Information System**. In this section, we ask about any other data systems your agency uses to store breastfeeding information, *in addition to the system your agency uses to certify clients*. We also ask whether your agency links its breastfeeding data with other sources.

ALL RESPONDENTS

M1. Does your agency store breastfeeding information in an administrative data system that is separate from the WIC Information System? *An administrative data system could be used, for example, for administering nutrition education, peer counseling, breast pump issuance, or something else related to WIC program operations. The data system may be a database, spreadsheet, or some other data storage system.*

- Yes..... 1
- No 0

IF YOU RESPONDED "YES" AT M1, PLEASE ANSWER M2. OTHERWISE, CONTINUE TO M5.

M2. What other administrative data system does your agency use to store participant information?

Select all that apply

- State health department database 1
- Peer counseling program database 2
- Breast pump issuance database 3
- Nutrition education database 4
- Other 5

Specify

IF YOU RESPONDED TO MORE THAN ONE OPTION AT M2, PLEASE RESPOND TO M3. IF YOU SELECTED ONLY ONE RESPONSE AT M2, PLEASE CONTINUE TO M4.

M3. Which database contains the greatest amount of breastfeeding information?

- State health department database 1
- Peer counseling program database 2
- Breast pump issuance database 3
- Nutrition education database 4
- Other (as noted at M2) 5

IF YOU SELECTED ONLY RESPONSE AT M2, PLEASE RESPOND TO M4. OTHERWISE, CONTINUE TO M5.

M4. We will refer to the database you noted at M2 as the *Other Administrative System* throughout the survey.

Does your agency's Other Administrative System include all WIC participants or just a subset of them?

- All WIC participants 1
- A subset of WIC participants 2

ALL RESPONDENTS

M5. Does your agency maintain a separate data system that is not used to administer the WIC program (for example, a separate data system containing survey data or qualitative information from interviews or focus groups with participants)?

- Yes..... 1
- No 0

IF YOU RESPONDED "YES" AT M5, PLEASE RESPOND TO M6. OTHERWISE, GO TO M7.

M6. Is a survey that your agency administers the basis for a separate data system? *If yes, please note that we will refer to this as the Separate Data System throughout the survey.*

- Yes..... 1
- No 0

IF YOUR AGENCY HAS A SEPARATE DATA SYSTEM OR ADMINISTERS A SURVEY FOR A SEPARATE DATA SYSTEM (YOU ANSWERED "YES" AT M1 OR M6), ANSWER M7. OTHERWISE GO TO M8.

M7. Which of the following are reasons for your agency to maintain more than one data system?

Select all that apply

- WIC Information System cannot track every aspect of program operations 1
- WIC Information System cannot produce desired reports 2
- Our agency wanted to collect information that we do not collect as part of routine program operations 3
- Our agency staff do not trust breastfeeding estimates produced from the WIC Information System..... 4
- Other..... 5

Specify

ALL RESPONDENTS

M8. Are your agency's breastfeeding data in the WIC Information System linked with other data sources?

- Yes..... 1
- No 0
- NO RESPONSE M

IF YOU ANSWERED "YES" AT M8, RESPOND TO M9. OTHERWISE, CONTINUE TO N1.

M9. What other data sources are linked to your agency's breastfeeding data?

Select all that apply

- Survey data collected by another entity 1
- Newborn genetic screening data..... 2
- Vital records data..... 3
- Medicaid data 4
- Other..... 5

Specify

IF YOU ANSWERED "YES" AT M8, RESPOND TO M10. OTHERWISE, CONTINUE TO N1.

M10. In what ways does your agency use the linked data from an external source?

Select all that apply

- Service delivery or program management 1
- Program evaluation 2
- Research 3
- Other..... 4

Specify

Breastfeeding Measures Overview

The questions in this section ask about the data system or systems where your agency stores breastfeeding information collected from participants. We are interested in knowing whether your agency collects information on breastfeeding initiation, duration, exclusivity, and intensity, and any other measures. Agencies define measures differently. Some examples of each measure are listed below.

Breastfeeding Measure	Example(s) of the Measure
Initiation	Did a mother breastfeed or feed breast milk to her child at least once? Did a child ever receive a fully or partially breastfeeding food package?
Duration	If a mother is no longer breastfeeding her child, what was the date she stopped? For how many weeks or months did a mother breastfeed or pump milk to feed her child? For how many weeks or months has a mother continued to breastfeed her child?
Exclusivity	For how many weeks or months did a mother feed her child only breast milk? Is a child receiving a fully breastfeeding food package? Is the child not receiving any formula from WIC?
Intensity	How many feedings were breast milk, out of the total number of feedings?

ALL RESPONDENTS

N1. For each breastfeeding measure in the following table, which data system(s) store(s) the breastfeeding data your agency collects from participants or receives from local WIC agencies in your State? Please mark "yes" if a measure is stored even if you are not able to produce an estimate from the data.

	WIC Information System		Other Administrative System		Separate Data System	
	Yes	No	Yes	No	Yes	No
a. Initiation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Duration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Exclusivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Intensity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other breastfeeding measure (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>						
f. Other breastfeeding measure (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>						
g. Other breastfeeding measure (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>						

IF YOU ENTERED A RESPONSE IN "OTHER" AT N1E, PLEASE RESPOND TO N2. OTHERWISE, CONTINUE TO O1.

N2. How does your agency define the response you provided in N1e? How does your agency collect information about it from participants?

IF YOU ENTERED A RESPONSE IN "OTHER" AT N1F, PLEASE RESPOND TO N3. OTHERWISE, CONTINUE TO O1.

N3. How does your agency define the response you provided in N1f? How does your agency collect information about it from participants?

IF YOU ENTERED A RESPONSE IN "OTHER" AT N1G, PLEASE RESPOND TO N4. OTHERWISE, CONTINUE TO O1.

N4. How does your agency define the response you provided in N1g? How does your agency collect information about it from participants?

IF YOU INDICATED THAT YOUR AGENCY MEASURES BREASTFEEDING INITIATION AT N1A, PLEASE RESPOND TO THE QUESTIONS IN SECTION O. IF YOUR AGENCY DOES NOT MEASURE BREASTFEEDING INITIATION, PLEASE CONTINUE TO SECTION P.

Breastfeeding Initiation Measurement

Earlier, you indicated that your agency collects/receives information on breastfeeding initiation. The following questions ask about how your agency defines and measures initiation.

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INITIATION. OTHERWISE, CONTINUE TO P1.

O1. During which of the following encounters is breastfeeding initiation assessed?

Select all that apply

- Before the first postpartum WIC clinic visit..... 1
- Postpartum certification visit..... 2
- Later recertification visits 3
- Other WIC clinic visits..... 4
- Peer counseling encounters 5
- Other..... 6

Specify

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INITIATION. OTHERWISE, CONTINUE TO P1.

O2. Do clinic staff ask or does your agency store information on whether a mother ever breastfed her child?

- Yes..... 1
- No 0

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INITIATION. OTHERWISE, CONTINUE TO P1.

O3. Do clinic staff ask or does your agency store information on whether a mother is currently breastfeeding her child?

- Yes..... 1
- No 0

IF YOU RESPONDED "YES" TO BOTH O2 AND O3, PLEASE RESPOND TO O4. OTHERWISE, PLEASE CONTINUE TO O5.

O4. Which question is asked first?

- Ever breastfed 1
- Currently breastfeeding 2

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INITIATION. OTHERWISE, CONTINUE TO P1.

O5. Does your agency collect breastfeeding initiation information from a source other than a parent or caregiver, such as hospital staff or records?

- Yes..... 1
- No 0

IF YOU RESPONDED "YES" TO O2, PLEASE RESPOND TO O6. OTHERWISE, PLEASE CONTINUE TO O7.

O6. Which of the following questions is closest to how clinic staff ask a mother whether she ever breastfed her child?

- Did your baby ever receive breast milk? 1
- Did you breastfeed or feed breast milk to your baby at least once? 2
- Did you ever breastfeed or express breast milk to feed your baby after delivery? 3
- Did you ever breastfeed or express breast milk to feed your new baby after delivery, even for a short period of time? 4
- Did you make any attempt to breastfeed, whether it was successful or not? ... 5

IF YOU RESPONDED "YES" TO O3, PLEASE RESPOND TO O7. OTHERWISE, PLEASE CONTINUE TO O8.

O7. Which of the following questions is closest to how clinic staff ask a mother whether she is currently breastfeeding her child?

- Are you now breastfeeding your baby? 1
- Are you currently breastfeeding? 2
- What type of milk did your baby consume the most in the past week?..... 3
- Have you stopped breastfeeding altogether?..... 4
- Are you still breastfeeding or feeding expressed milk to your baby? 5

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INITIATION. OTHERWISE, CONTINUE TO P1.

O8. How does your agency determine breastfeeding initiation in the data system(s) shown? (Mark all that apply per row.)

	WIC Information System	Other Administrative System
a. Mothers who initiated breastfeeding	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. Infants receiving fully or partially breastfeeding food packages	2 <input type="checkbox"/>	2 <input type="checkbox"/>

IF YOU INDICATED THAT YOUR AGENCY MEASURES BREASTFEEDING DURATION AT N1B, PLEASE RESPOND TO THE QUESTIONS IN SECTION P. IF YOUR AGENCY DOES NOT MEASURE BREASTFEEDING INITIATION, PLEASE CONTINUE TO SECTION Q.

Breastfeeding Duration Measurement

Earlier, you indicated that your agency collects/receives information on breastfeeding duration. The following questions ask about how your agency defines and measures duration.

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING DURATION. OTHERWISE, CONTINUE TO Q1.

P1. During which encounters is breastfeeding duration assessed?

Select all that apply

- Before the first postpartum WIC clinic visit..... 1
- Postpartum certification visit..... 2
- Later recertification visits 3
- Other WIC clinic visits..... 4
- Peer counseling encounters 5
- Other..... 6

Specify

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING DURATION. OTHERWISE, CONTINUE TO Q1.

P2. Which of the following questions is closest to how clinic staff ask about breastfeeding duration?

- How long did your baby at least partially breastfeed?..... 1
- How old was your baby the first time you fed him or her anything other than breast milk? 2
- How many weeks or months did you breastfeed or pump milk to feed your baby? 3
- Mother is asked whether she is still breastfeeding. If she responds “no,” she is asked the date she stopped..... 4
- Mother is asked whether she is still breastfeeding. If she responds “no,” she is asked how long she gave breast milk to her baby..... 5

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING DURATION. OTHERWISE, CONTINUE TO Q1.

P3. How does your agency determine how long a mother breastfed her child in the data system(s) shown? (Mark all that apply per row.)

	WIC Information System	Other Administrative System
a. The difference between dates when breastfeeding started and ended	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. The length of time as reported by the mother	2 <input type="checkbox"/>	2 <input type="checkbox"/>
c. The length of time an infant receives a fully or partially breastfeeding food package	3 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Other (specify)	4 <input type="checkbox"/>	4 <input type="checkbox"/>
<input type="text"/>		

IF YOU SELECTED EITHER BOX IN COLUMN A AT P3, PLEASE RESPOND TO P4. OTHERWISE, PLEASE CONTINUE TO Q1.

P4. In the data system(s) shown, what is the end date that your agency uses to determine how long a mother breastfed her child? For example, a mother visits the WIC clinic on October 1 and is asked if she is currently breastfeeding her child. She says she stopped on September 15. If the end date used to determine how long she breastfed her child is September 15, please mark "a." If October 1 is used to determine how long she breastfed her child, please mark "b."

	WIC Information System	Other Administrative System
a. The date as reported by the mother	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. The date the mother's report was recorded	2 <input type="checkbox"/>	2 <input type="checkbox"/>

IF YOU INDICATED THAT YOUR AGENCY MEASURES BREASTFEEDING EXCLUSIVITY AT N1C, PLEASE RESPOND TO THE QUESTIONS IN SECTION Q. IF YOUR AGENCY DOES NOT MEASURE BREASTFEEDING EXCLUSIVITY, PLEASE CONTINUE TO SECTION R.

Breastfeeding Exclusivity Measurement

Earlier, you indicated that your agency receives/collects information on breastfeeding exclusivity. The following questions ask about how your agency defines and measures exclusivity.

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING EXCLUSIVITY. OTHERWISE, CONTINUE TO R1.

Q1. During which encounters is exclusive breastfeeding assessed?

Select all that apply

- Before the first postpartum WIC clinic visit..... 1
- Postpartum certification visit..... 2
- Later recertification visits 3
- Other WIC clinic visits..... 4
- Peer counseling encounters 5
- Other..... 6

Specify

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING EXCLUSIVITY. OTHERWISE, CONTINUE TO R1.

Q2. Which of the following questions is closest to how clinic staff ask about breastfeeding exclusivity?

- What did you feed your baby in the past 24 hours? If formula was introduced, how much? 1
 - How are you feeding your baby?..... 2
 - How long did you give (just or only) breast milk to your baby? 3
 - Do you only give your baby breast milk and vitamin supplements?..... 4
 - Is your baby receiving any solids, water, or other liquids besides breast milk? 5
 - Did you feed your baby anything other than breast milk? 6
 - How old was your baby the first time he or she drank liquids other than breast milk (such as formula, water, juice, tea, or cow's milk)? 7
 - How old was your baby when he/she was first fed formula? 8
 - How old was your baby when he/she was first fed anything other than breast milk or formula? 9
 - Other..... 10
- Specify

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING EXCLUSIVITY. OTHERWISE, CONTINUE TO R1.

Q3. How does your agency define breastfeeding exclusivity in the data system(s) shown? (Mark all that apply per row.)

	WIC Information System	Other Administrative System
a. Infant receives no solids, water, or other liquids besides breast milk	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. Infant receives fully breastfeeding food package	2 <input type="checkbox"/>	2 <input type="checkbox"/>
c. Other (specify)	3 <input type="checkbox"/>	3 <input type="checkbox"/>
<input type="text"/>		

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING EXCLUSIVITY. OTHERWISE, CONTINUE TO R1.

Q4. In the data system(s) shown, how does your agency determine how long an infant is exclusively breastfed? (Mark all that apply per row.)

	WIC Information System	Other Administrative System
a. The difference between dates between when exclusive breastfeeding started and stopped	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. The number of days, weeks, or months as reported by the mother	2 <input type="checkbox"/>	2 <input type="checkbox"/>
c. The length of time an infant receives a fully breastfeeding food package	3 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Other (specify)	4 <input type="checkbox"/>	4 <input type="checkbox"/>
<input type="text"/>		

IF YOU INDICATED THAT YOUR AGENCY MEASURES BREASTFEEDING INTENSITY AT N1D, PLEASE RESPOND TO THE QUESTIONS IN SECTION R. IF YOUR AGENCY DOES NOT MEASURE BREASTFEEDING INTENSITY, PLEASE CONTINUE TO SECTION S.

Breastfeeding Intensity Measurement

Earlier, you indicated that your agency collects/receives information on breastfeeding intensity. The following questions ask about how your agency defines and measures intensity.

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INTENSITY. OTHERWISE, CONTINUE TO S1.

R1. During which encounters is breastfeeding intensity assessed?

- Before the first postpartum WIC clinic visit..... 1
- Postpartum certification visit..... 2
- Later recertification visits 3
- Other WIC clinic visits..... 4
- Peer counseling encounters 5
- Other 6

Specify

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INTENSITY. OTHERWISE, CONTINUE TO S1.

R2. Which of the following questions is closest to how clinic staff ask about breastfeeding intensity?

- How many times a day (past 24 hours) was your baby fed the following foods? 1
- In the past seven days, how often was your baby fed each of the following foods? 2

IF YOUR AGENCY IS A STATE AGENCY THAT DOES NOT PROVIDE SERVICES AND YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INTENSITY, PLEASE RESPOND TO R3. OTHERWISE, PLEASE CONTINUE TO R4.

R3. What is the recall period over which breastfeeding intensity is determined?

- 24 hours..... 1
- Seven days..... 2
- Other..... 3

Specify

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INTENSITY. OTHERWISE, CONTINUE TO S1.

R4. How does your agency define breastfeeding intensity in the data system(s) shown? (Mark all that apply per row.)

	WIC Information System	Other Administrative System
a. The percentage of liquid feedings that are breast milk	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. The percentage of total feedings, including solid foods, that are breast milk	2 <input type="checkbox"/>	2 <input type="checkbox"/>
c. Other (specify)	3 <input type="checkbox"/>	3 <input type="checkbox"/>
<input type="text"/>		

PLEASE RESPOND ONLY IF YOU INDICATED AT N1 THAT YOUR AGENCY MEASURES BREASTFEEDING INTENSITY. OTHERWISE, CONTINUE TO S1.

R5. Which of the following types of fields in the data system(s) shown are used to record breastfeeding intensity? (Mark all that apply per row.)

	WIC Information System	Other Administrative System
a. A field recording the percentage of total feedings that were breast milk	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. Separate fields recording the number of breast milk and non-breast milk feedings	2 <input type="checkbox"/>	2 <input type="checkbox"/>
c. A field indicating whether breast milk feedings exceed a certain threshold such as 50 percent	3 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Other (specify)	4 <input type="checkbox"/>	4 <input type="checkbox"/>
<input type="text"/>		

IF YOU RESPONDED "YES" IN ANY ROW AT N1, PLEASE RESPOND TO SECTION S. OTHERWISE, PLEASE CONTINUE TO SECTION T.

Current Breastfeeding Estimates

The following questions ask whether you *could* provide estimates for the breastfeeding measures that your agency collects. Later, we may ask for actual estimates, depending on what is available. **Please answer all questions using the information your agency currently has. If your State WIC agency provides breastfeeding reports to your local agency, please do not request reports for the purposes of this survey.**

PLEASE RESPOND ONLY IF YOU RESPONDED "YES" IN ANY ROW AT N1. OTHERWISE, CONTINUE TO T1.

S1. For each breastfeeding measure your agency collects (as indicated in N1), please indicate whether you could provide an estimate of it from each data system(s) shown.

This estimate may be based, for example, on a report that your agency can generate directly, a report that the State agency or the Centers for Disease Control and Prevention provided to your agency (if applicable), a calculation you perform on the data, or something else.

	WIC Information System		Other Administrative System		Separate Data System	
	Yes	No	Yes	No	Yes	No
a. Initiation	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
b. Duration	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
c. Exclusivity	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
d. Intensity	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
e. ["Other" response from N1e]	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
f. ["Other" response from N1f]	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
g. ["Other" response from N1g]	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>

IF YOU SELECTED MORE THAN ONE DATA SYSTEM IN ANY ROW AT S1, PLEASE RESPOND TO S2. OTHERWISE, CONTINUE TO S3.

S2. For each of the following breastfeeding measures, please indicate the data system in which most of your agency's breastfeeding information is stored.

	WIC Information System		Other Administrative System		Separate Data System	
	Yes	No	Yes	No	Yes	No
a. Initiation	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
b. Duration	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
c. Exclusivity	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
d. Intensity	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
e. ["Other" response from N1e]	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
f. ["Other" response from N1f]	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>
g. ["Other" response from N1g]	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>	1 <input type="radio"/>	0 <input type="radio"/>

PLEASE RESPOND ONLY IF YOU RESPONDED "YES" IN ANY ROW AT N1. OTHERWISE, CONTINUE TO T1.

S3. For each breastfeeding measure listed below, please rate how difficult it would be for your agency to report a recent estimate, with 1 indicating that it would be impossible to report, and 6 indicating that it would be extremely easy. Please consider the type of the estimate, how readily available it is, and which agency staff might be involved in finding or generating the estimate. If applicable, please answer for the data system in which most of your agency's breastfeeding information is stored.

	Impossible					Extremely Easy
a. Percentage of infants receiving fully, partially, and non-breastfeeding food packages at <u>age two weeks</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
b. Percentage of infants receiving fully, partially, and non-breastfeeding food packages at <u>age three months (13 weeks)</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
c. Percentage of infants receiving fully, partially, and non-breastfeeding food packages at <u>age six months</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
d. Percentage of infants who initiated breastfeeding	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
e. Percentage of infants who were breastfed for at least <u>six months</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
f. Average length of time infants were breastfed	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
g. Percentage of infants who were exclusively breastfed for at least <u>three months (13 weeks)</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
h. Average length of time infants were exclusively breastfed	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	●					
i. Percentage of total feedings that are breast milk feedings for infants <u>age three months (13 weeks)</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

IF YOU INDICATED AT S1 THAT YOUR AGENCY MEASURES EXCLUSIVITY AND THAT YOU BASE EXCLUSIVITY ON THE AMOUNT OF TIME A BREASTFEEDING PACKAGE IS PROVIDED (Q4C SELECTED), PLEASE RESPOND TO S4. OTHERWISE, PLEASE CONTINUE TO S5.

Food Package-Based Estimates

S4. For which of the following infant ages or range of ages could your agency report the percentages of infants receiving fully, partially, and non-breastfeeding food packages?

Please select a range of ages only if your agency could not produce an estimate for any single time point included in the range. Please do not request reports from your State WIC agency for the purposes of this survey.

Select all that apply

- In-hospital 1
- Two weeks 2
- One month (four weeks) 3
- Two months (eight weeks) 4
- Three months (13 weeks) 5
- Zero to three months 6
- Four to six months 7
- None of these 8

IF YOU INDICATED AT S1 THAT YOUR AGENCY MEASURES EXCLUSIVITY AND THAT YOU BASE EXCLUSIVITY ON THE AMOUNT OF TIME A BREASTFEEDING PACKAGE IS PROVIDED (Q4C SELECTED), PLEASE RESPOND TO S5. OTHERWISE, CONTINUE TO S7.

S5. Please enter the most recent percentage of infants receiving fully, partially, and non-breastfeeding food packages, as well as the total number of infants included in the age category.

- If you are able to provide an estimate for infants age three months (13 weeks), please complete the first row. If you are unable to provide an estimate for infants age three months, please provide an estimate for the infant age closest to three months in the second row and indicate the infant range.

	Percentage of infants receiving fully breastfeeding food package	Percentage of infants receiving partially breastfeeding food package	Percentage of infants receiving non-breastfeeding food package	Total number of infants in the age category
a. Infants age three months (13 weeks)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Infant age closest to three months selected at S4 (<i>Specify</i>)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

IF YOU INDICATED AT S1 THAT YOUR AGENCY MEASURES EXCLUSIVITY AND THAT YOU BASE EXCLUSIVITY ON THE BREASTFEEDING START AND END DATE (Q4C SELECTED), PLEASE RESPOND TO S6. OTHERWISE, CONTINUE TO S10.

S6. Over what months did your agency collect the data for reporting the percentage of infants receiving the various food packages?

to
MONTH YEAR MONTH YEAR

IF YOU INDICATED AT S1 THAT YOUR AGENCY MEASURES EXCLUSIVITY AND THAT YOU BASE EXCLUSIVITY ON THE BREASTFEEDING START AND END DATE (Q4C SELECTED), PLEASE RESPOND TO S7. OTHERWISE, CONTINUE TO S10.

S7. What is the source of these estimates?

Select all that apply

- An estimate calculated by hand in the local agency 1
- A report generated by local agency 2
- A report generated by State agency 3
- A report generated by the CDC 4
- Performed custom query of data system 5
- Other 6

Specify

IF YOU INDICATED AT S1 THAT YOUR AGENCY MEASURES EXCLUSIVITY AND THAT YOU BASE EXCLUSIVITY ON THE BREASTFEEDING START AND END DATE (Q4C SELECTED), PLEASE RESPOND TO S8. OTHERWISE, CONTINUE TO S9.

S8. Please share anything else about what these estimates represent (for example, the population, time period, etc.).

IF YOU INDICATED AT S1 THAT YOUR AGENCY MEASURES EXCLUSIVITY AND THAT YOUR AGENCY DOES NOT BASE EXCLUSIVITY ON THE LENGTH OF TIME AN INFANT RECEIVES A FULLY BREASTFEEDING FOOD PACKAGE (Q4C NOT SELECTED), PLEASE RESPOND TO S9. OTHERWISE, CONTINUE TO S11.

Exclusive Breastfeeding Estimates

S9. For the data system(s) that apply, could you provide an estimate of the percentage of infants who were exclusively breastfed for a minimum length of time (for example, at least three months, six months, or some other length of time)? Please do not request reports from your State WIC agency for the purposes of this survey.

	Yes	No
a. WIC Information System	1 <input type="radio"/>	0 <input type="radio"/>
b. Other Administrative System	1 <input type="radio"/>	0 <input type="radio"/>
c. Separate Data System	1 <input type="radio"/>	0 <input type="radio"/>

IF YOU ANSWERED "YES" TO ANY DATA SYSTEM IN S9, PLEASE RESPOND TO S10. OTHERWISE, PLEASE CONTINUE TO S11.

S10. For the data system(s) that apply, for which of the following lengths of time could your agency produce an estimate of percentage of infants who were breastfed exclusively for at least that length of time? (Mark all that apply per row.)

	WIC Information System	Other Administrative System	Separate Data System
a. One week	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
b. One month (four weeks)	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
c. Six weeks	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Two months (eight weeks)	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
e. Three months (13 weeks)	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
f. Four months	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
g. Five months	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
h. Six months (26 weeks)	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
i. Other (specify)	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>

IF YOU INDICATED THAT YOU COULD REPORT BREASTFEEDING EXCLUSIVITY (YOU SELECTED "YES" AT S1C) AND YOU INDICATED THAT REPORTING THE AVERAGE LENGTH OF TIME INFANTS ARE EXCLUSIVELY BREASTFED WOULD BE POSSIBLE (YOU SELECTED 2-5 AT S3H) AND INDICATED THAT YOUR AGENCY DOES NOT BASE EXCLUSIVITY ON THE BREASTFEEDING FOOD PACKAGES (Q4C NOT SELECTED), PLEASE ANSWER S11. OTHERWISE, CONTINUE TO S12.

S11. For the data system(s) that apply, could you provide an estimate of the average length of time infants are exclusively breastfed? Please do not request reports from your State WIC agency for the purposes of this survey.

	Yes	No
a. WIC Information System	1 <input type="radio"/>	0 <input type="radio"/>
b. Other Administrative System	1 <input type="radio"/>	0 <input type="radio"/>
c. Separate Data System	1 <input type="radio"/>	0 <input type="radio"/>

IF YOU INDICATED THAT YOUR AGENCY COULD PRODUCE AN ESTIMATE FOR THE PERCENTAGE OF INFANTS WHO WERE EXCLUSIVELY BREASTFED AT 3 MONTHS (AT LEAST ONE DATA SYSTEM SELECTED AT S10E) PLEASE RESPOND TO S12. OTHERWISE, CONTINUE TO S19.

Please provide your agency's most recent estimate of the percentage of infants who were exclusively breastfed for at least three months. If applicable, please provide this estimate from the system in which most of your agency's breastfeeding information is stored.

We would also like to know more about what the estimate represents. For example, does it represent all infants born in a given time period, such as the year 2011 or the month of February, or does it represent mothers certified for WIC in a given period, or some other population? What time period does the estimate represent?

S12. What percentage of infants were exclusively breastfed for at least three months?

Percentage

IF YOU RESPONDED TO S12, PLEASE RESPOND TO S13. OTHERWISE, CONTINUE TO S19.

S13. What is the total number of infants on which that percentage is based?

Infants

IF YOU RESPONDED TO S12, PLEASE RESPOND TO S14. OTHERWISE, CONTINUE TO S19.

S14. What is the population that this estimate represents?

- Infants born in a given time period that exclusively breastfed for at least three months..... 1
- Mothers or infants initially certified in a given time period that exclusively breastfed for at least three months..... 2
- Infants born to mothers who were enrolled in WIC during pregnancy that exclusively breastfed 3
- Other..... 4

Specify

IF YOU RESPONDED TO S12, PLEASE RESPOND TO S15. OTHERWISE, CONTINUE TO S19.

S15. Does this estimate only include infants over three months old who are no longer exclusively breastfeeding?

- Yes..... 1
- No 0

IF YOU RESPONDED TO S12, PLEASE RESPOND TO S16. OTHERWISE, CONTINUE TO S19.

S16. Over what months did your agency collect the data for reporting the percentage of infants that were exclusively breastfed for at least three months?

to
MONTH YEAR MONTH YEAR

IF YOU RESPONDED TO S12, PLEASE RESPOND TO S17. OTHERWISE, CONTINUE TO S19.

S17. What is the source of your agency's estimate of breastfeeding exclusivity?

- An estimate calculated by hand in the local agency 1
- A report generated by local agency..... 2
- A report generated by State agency..... 3
- A report generated by the CDC..... 4
- Performed custom query of data system..... 5
- Other..... 6

Specify

IF YOU RESPONDED TO S12, PLEASE RESPOND TO S18. OTHERWISE, CONTINUE TO S19.

S18. Please share anything else about what this estimate represents (for example, the population, time period, etc.).

IF YOU INDICATED THAT YOUR AGENCY COULD NOT PROVIDE AN ESTIMATE OF THE PERCENTAGE OF EXCLUSIVELY BREASTFEEDING INFANTS AT AGE THREE MONTHS AT S9 (ALL DATABASES SELECTED AS "NO" AT S9) BUT YOU INDICATED THAT YOU COULD PROVIDE AN ESTIMATE OF THE AVERAGE LENGTH OF TIME INFANTS WERE EXCLUSIVELY BREASTFED AT S11 (ANY DATABASE SELECTED AT S11) PLEASE RESPOND TO S19. OTHERWISE, CONTINUE TO S26.

Please provide your agency's most recent estimate of the average length of time infants were exclusively breastfed. If applicable, please provide this estimate from the system in which most of your agency's breastfeeding information is stored.

We would also like to know more about what the estimate represents. For example, does it represent all infants born in a given time period, such as the year 2011 or the month of February, or does it represent mothers certified for WIC in a given period, or some other population? What time period does the estimate represent?

S19. What is the average length of time infants were exclusively breastfed?

-
-
- Days..... 1
 Weeks..... 2
 Months..... 3

IF YOU RESPONDED TO S19, PLEASE RESPOND TO S20. OTHERWISE, CONTINUE TO S26.

S20. What is the total number of infants included in this average?

Infants

IF YOU RESPONDED TO S19, PLEASE RESPOND TO S21. OTHERWISE, CONTINUE TO S26.

S21. What population is included in this estimate?

- Infants born in a given time period 1
- Mothers or infants initially certified in a given time period 2
- Infants born to mothers who were enrolled in WIC during pregnancy 3
- Other 4

Specify

IF YOU RESPONDED TO S19, PLEASE RESPOND TO S22. OTHERWISE, CONTINUE TO S26.

S22. Does this estimate only include infants who are no longer exclusively breastfeeding?

- Yes 1
- No 0

IF YOU RESPONDED TO S19, PLEASE RESPOND TO S23. OTHERWISE, CONTINUE TO S26.

S23. Over what months did your agency collect the data for reporting the average length of time infants were exclusively breastfed?

MONTH YEAR

MONTH YEAR

IF YOU RESPONDED TO S19, PLEASE RESPOND TO S24. OTHERWISE, CONTINUE TO S26.

S24. What is the source of your agency's estimate of breastfeeding exclusivity?

- An estimate calculated by hand in the local agency 1
- A report generated by local agency..... 2
- A report generated by State agency..... 3
- A report generated by the CDC..... 4
- Performed custom query of data system..... 5
- Other..... 6

Specify

IF YOU RESPONDED TO S19, PLEASE RESPOND TO S25. OTHERWISE, CONTINUE TO S26.

S25. Please share anything else about what this estimate represents (for example, the population, time period, etc.).

IF YOU INDICATED THAT YOUR AGENCY COULD PROVIDE AN ESTIMATE OF BREASTFEEDING INTENSITY (ANY DATABASE SELECTED AT S1D) PLEASE RESPOND TO S26. OTHERWISE, CONTINUE TO S33.

Breastfeeding Intensity Estimates

Please provide your agency's most recent estimate of breastfeeding intensity and some additional information about the estimate. If applicable, please provide this estimate from the system in which most of your agency's breastfeeding information is stored.

S26. For which of the following infant ages or range of ages could your agency produce an estimate of breastfeeding intensity?

Please select a range of ages only if your agency could not produce an estimate for any single time points included in that range. Please do not request reports from your State WIC agency for the purposes of this survey.

Select all that apply

- In-hospital 1
- Two weeks 2
- One month (four weeks) 3
- Two months (eight weeks) 4
- Three months (13 weeks) 5
- Six months (26 weeks) 6
- Nine months 7
- Twelve months 8
- Zero to three months 9
- Four to six months 10
- Seven to nine months 11
- Ten to 12 months 12
- Other 13

Specify

IF YOU SELECTED "3 MONTHS (13 WEEKS)" AT S26, PLEASE RESPOND TO S27. OTHERWISE, CONTINUE TO S28.

S27. For infants age three months, what percentage of total feedings are breast milk feedings?

Percentage

IF YOU SELECTED ANY RESPONSE OTHER THAN "3 MONTHS (13 WEEKS)" AT S26, PLEASE RESPOND TO 28 AND WRITE DOWN THE AGE OR AGE RANGE YOU SELECTED AT S26. OTHERWISE, PLEASE CONTINUE TO S29.

S28. For infants at the age you selected in S26, what percentage of total feedings are breast milk feedings?

Percentage of Infants Age(s):

IF YOU RESPONDED TO S28, PLEASE RESPOND TO S29. OTHERWISE, CONTINUE TO S33.

S29. What is the total number of infants included in this estimate?

Infants

IF YOU RESPONDED TO S28, PLEASE RESPOND TO S30. OTHERWISE, CONTINUE TO S33.

S30. Over what months did your agency collect the data for reporting the percentage of feedings that were breast milk feedings?

to
MONTH YEAR MONTH YEAR

IF YOU INDICATED THAT YOUR AGENCY COULD PROVIDE AN ESTIMATE OF BREASTFEEDING

INTENSITY (ANY DATABASE SELECTED AT S1D) PLEASE RESPOND TO S31. OTHERWISE, CONTINUE TO S33.

S31. What is the source of your agency's estimate of breastfeeding intensity?

- An estimate calculated by hand in the local agency 1
- A report generated by local agency..... 2
- A report generated by State agency..... 3
- A report generated by the CDC..... 4
- Performed custom query of data system..... 5
- Other..... 6

Specify

IF YOU INDICATED THAT YOUR AGENCY COULD PROVIDE AN ESTIMATE OF BREASTFEEDING INTENSITY (ANY DATABASE SELECTED AT S1D) PLEASE RESPOND TO S32. OTHERWISE, CONTINUE TO S33.

S32. Please share anything else about what this estimate represents (for example, the population, time period, etc.).

Estimates of Other Breastfeeding Measures

IF YOU SELECTED "YES" TO A RESPONSE IN THE "OTHER" CATEGORY AT S1E, PLEASE RESPOND TO S33 BELOW. OTHERWISE, CONTINUE TO S34.

S33. Please provide your agency's most recent estimate for the response you entered at S1e, who is included in it, and the months over which your agency collected the data included in the estimate.

IF YOU SELECTED "YES" TO A RESPONSE IN THE "OTHER" CATEGORY AT S1F, PLEASE RESPOND TO S33 BELOW. OTHERWISE, CONTINUE TO S35.

S34. Please provide your agency's most recent estimate for the response you entered at S1f, who is included in it, and the months over which your agency collected the data included in the estimate.

IF YOU SELECTED "YES" TO A RESPONSE IN THE "OTHER" CATEGORY AT S1G, PLEASE RESPOND TO S33 BELOW. OTHERWISE, CONTINUE TO T1.

S35. Please provide your agency's most recent estimate for the response you entered at S1g, who is included in it, and the months over which your agency collected the data included in the estimate.

IF YOU INDICATED THAT YOUR AGENCY STORES ANY BREASTFEEDING INFORMATION IN A WIC INFORMATION SYSTEM (YOU SELECTED "YES" TO ANY RESPONSE IN THE FIRST COLUMN AT N1A TO N1G), PLEASE RESPOND TO SECTION T. OTHERWISE, PLEASE CONTINUE TO SECTION U.

Breastfeeding Data Collection

The questions in this section are about how breastfeeding measures and other breastfeeding-related information is collected and stored.

IF YOUR AGENCY IS A STATE AGENCY THAT PROVIDES DIRECT SERVICES TO PARTICIPANTS OR A LOCAL WIC AGENCY, PLEASE RESPOND TO T1. OTHERWISE, PLEASE CONTINUE TO T4.

T1. Which of the following staff typically collect breastfeeding information from participants?

Select all that apply

- Clerical or support staff..... 1
- Competent Professional Authorities (CPAs) / Certifying Authorities (CAs)..... 2
- Peer counselors..... 3
- WIC designated breastfeeding experts 4
- Nutritionists 5

IF YOUR AGENCY IS A STATE AGENCY THAT PROVIDES DIRECT SERVICES TO PARTICIPANTS OR A LOCAL WIC AGENCY, PLEASE RESPOND TO T2. OTHERWISE, PLEASE CONTINUE TO T4.

T2. For breastfeeding measures stored in the WIC Information System, do agency staff first record information on paper forms or do they enter information directly into the system?

- Use paper forms 1
- Enter information directly 2
- Both 3

IF YOUR AGENCY IS A STATE AGENCY THAT PROVIDES DIRECT SERVICES TO PARTICIPANTS OR A LOCAL WIC AGENCY, PLEASE RESPOND TO T3. OTHERWISE, PLEASE CONTINUE TO T4.

T3. How does your agency obtain breastfeeding information from your WIC clinic site(s)?

- Shared data system..... 1
- Clinics submit electronic reports..... 2
- Clinics submit paper reports 3
- Other..... 4

Specify

IF YOUR AGENCY IS A STATE AGENCY THAT DOES NOT PROVIDE DIRECT SERVICES TO PARTICIPANTS, PLEASE RESPOND TO T4. OTHERWISE, PLEASE CONTINUE TO T5.

T4. How does your State agency obtain breastfeeding information from local WIC agencies?

- Shared data system..... 1
- Local agencies submit electronic reports 2
- Local agencies submit paper reports 3
- Other..... 4

Specify

IF YOUR AGENCY IS A STATE AGENCY THAT PROVIDES DIRECT SERVICES TO PARTICIPANTS OR A LOCAL WIC AGENCY AND DOES NOT USE PAPER FORMS (YOU DID NOT SELECT THE FIRST OPTION AT T2), PLEASE RESPOND TO T5. OTHERWISE, PLEASE CONTINUE TO T6.

T5. Are all of the breastfeeding-related data fields, such as dates, drop-down boxes, or yes/no indicators, all shown on the same screen in the WIC Information System?

- Yes..... 1
- No 0

ALL RESPONDENTS

T6. What quality control procedures are in place to ensure accurate participant breastfeeding information is recorded in the WIC Information System?

Select all that apply

- The WIC Information System has required fields..... 1
- Paper forms are marked to indicate required fields 2
- Paper records are checked against the WIC Information System as an
audit..... 3
- Compare local agency estimates to State-generated estimates..... 4
- Staff confirm queries run as intended..... 5
- Other..... 6

Specify

IF YOUR AGENCY IS A STATE AGENCY THAT PROVIDES DIRECT SERVICES TO PARTICIPANTS OR A LOCAL WIC AGENCY, PLEASE RESPOND TO T7. OTHERWISE, PLEASE CONTINUE TO U1.

T7. Which of the following factors that may influence a woman’s ability or willingness to breastfeed does your agency store in a data system?

Yes	No
-----	----

Maternal or Infant Factors

- | | | |
|--|-------------------------|-------------------------|
| a. Prenatal WIC participation | 1 <input type="radio"/> | 0 <input type="radio"/> |
| b. Prenatal breastfeeding intention | 1 <input type="radio"/> | 0 <input type="radio"/> |
| c. Prior breastfeeding experience | 1 <input type="radio"/> | 0 <input type="radio"/> |
| d. In-hospital breastfeeding experience | 1 <input type="radio"/> | 0 <input type="radio"/> |
| e. Early postpartum breastfeeding experience | 1 <input type="radio"/> | 0 <input type="radio"/> |
| f. Reasons for feeding choice | 1 <input type="radio"/> | 0 <input type="radio"/> |
| g. Maternal health information such as body mass index or history of cardiovascular disease, diabetes, or anemia | 1 <input type="radio"/> | 0 <input type="radio"/> |
| h. Infant health issues such as prematurity, low birth weight, developmental problem, or feeding problem | 1 <input type="radio"/> | 0 <input type="radio"/> |
| i. Timing of return to work or school..... | 1 <input type="radio"/> | 0 <input type="radio"/> |
| j. Breastfeeding contraindications | 1 <input type="radio"/> | 0 <input type="radio"/> |

Agency Factors

- | | | |
|--|-------------------------|-------------------------|
| k. Number of breastfeeding referrals | 1 <input type="radio"/> | 0 <input type="radio"/> |
| l. Reasons for breastfeeding referrals..... | 1 <input type="radio"/> | 0 <input type="radio"/> |
| m. Breastfeeding aid issuance..... | 1 <input type="radio"/> | 0 <input type="radio"/> |
| n. Peer counseling program participation | 1 <input type="radio"/> | 0 <input type="radio"/> |
| o. Breastfeeding education contacts..... | 1 <input type="radio"/> | 0 <input type="radio"/> |

IF YOU SELECTED "YES" TO ANY RESPONSES IN T7A THROUGH T7J, PLEASE RESPOND TO T8. OTHERWISE, PLEASE CONTINUE T9.

T8. Does your agency determine whether breastfeeding outcomes differ based on any of the following maternal or infant factors? (For example, if your agency can determine whether participants who had in-hospital breastfeeding experience breastfeed for more weeks than participants who did not have in-hospital breastfeeding experience, please mark "yes" for "in-hospital breastfeeding experience.")

	Yes	No
a. Prenatal WIC participation	1 <input type="radio"/>	0 <input type="radio"/>
b. Prenatal breastfeeding intention	1 <input type="radio"/>	0 <input type="radio"/>
c. Prior breastfeeding experience	1 <input type="radio"/>	0 <input type="radio"/>
d. In-hospital breastfeeding experience	1 <input type="radio"/>	0 <input type="radio"/>
e. Early postpartum breastfeeding experience	1 <input type="radio"/>	0 <input type="radio"/>
f. Reasons for feeding choice	1 <input type="radio"/>	0 <input type="radio"/>
g. Maternal health information such as body mass index or history of cardiovascular disease, diabetes, or anemia	1 <input type="radio"/>	0 <input type="radio"/>
h. Infant health issues such as prematurity, low birth weight, developmental problem, or feeding problem	1 <input type="radio"/>	0 <input type="radio"/>
i. Timing of return to work or school	1 <input type="radio"/>	0 <input type="radio"/>
j. Breastfeeding contraindications	1 <input type="radio"/>	0 <input type="radio"/>

IF YOU SELECTED "YES" TO ANY RESPONSES IN T7K THROUGH T7O, PLEASE RESPOND TO T9. OTHERWISE, PLEASE CONTINUE U1.

T9. Does your agency determine whether breastfeeding outcomes differ based on any of the following agency factors? (For example, if your agency can determine whether participants who had more breastfeeding education contacts breastfeed for more weeks than participants who had fewer breastfeeding education contacts, please mark "yes" for response e.)

	Yes	No
a. Number of breastfeeding referrals	1 <input type="radio"/>	0 <input type="radio"/>
b. Reasons for breastfeeding referrals	1 <input type="radio"/>	0 <input type="radio"/>
c. Breastfeeding aid issuance	1 <input type="radio"/>	0 <input type="radio"/>
d. Peer counseling program participation	1 <input type="radio"/>	0 <input type="radio"/>
e. Breastfeeding education contacts	1 <input type="radio"/>	0 <input type="radio"/>

IF YOUR AGENCY MAINTAINS A SEPARATE DATA SYSTEM THAT IS NOT USED TO ADMINISTER THE WIC PROGRAM (YOU SELECTED "YES" AT M5) PLEASE RESPOND TO SECTION U. OTHERWISE, PLEASE CONTINUE TO SECTION V.

Separate Data Systems

The questions in this section are about the separate data system that your agency maintains.

IF YOU INDICATED THAT A SURVEY THAT YOUR AGENCY ADMINISTERS IS NOT THE BASIS FOR A SEPARATE DATA SYSTEM (YOU SELECTED "NO" AT M6), PLEASE RESPOND TO U1. OTHERWISE, PLEASE CONTINUE TO U2.

U1. Earlier, you indicated that your agency maintains a separate data system containing breastfeeding information but the data are not from a survey that your agency administers. What is the source of the data in your agency's separate data system?

Select all that apply

- CDC's Pregnancy or Pediatric Nutrition Surveillance System (PNSS or PedNSS)..... 1
- Qualitative interviews with WIC participants..... 2
- Focus groups with WIC participants 3
- Other 4

Specify

IF YOU INDICATED THAT A SURVEY THAT YOUR AGENCY ADMINISTERS IS THE BASIS FOR A SEPARATE DATA SYSTEM (YOU SELECTED "YES" AT M6), PLEASE RESPOND TO U2. OTHERWISE, PLEASE CONTINUE TO V1.

U2. What was the most recent year your agency administered a survey to WIC participants?

Year

IF YOU INDICATED THAT A SURVEY THAT YOUR AGENCY ADMINISTERS IS THE BASIS FOR A SEPARATE DATA SYSTEM (YOU SELECTED "YES" AT M6), PLEASE RESPOND TO U3. OTHERWISE, PLEASE CONTINUE TO V1.

U3. Which of the following groups or populations does your agency target with your surveys?

Select all that apply

- Pregnant participants..... 1
- Postpartum participants..... 2
- Peer counseling program participants 3
- Mothers of infant and child WIC participants 4

IF YOU INDICATED THAT A SURVEY THAT YOUR AGENCY ADMINISTERS IS THE BASIS FOR A SEPARATE DATA SYSTEM (YOU SELECTED "YES" AT M6), PLEASE RESPOND TO U4. OTHERWISE, PLEASE CONTINUE TO V1.

U4. Does your agency survey the entire group or population, or a sample?

- Entire group or population 1
- Sample..... 2

IF YOU INDICATED THAT A SURVEY THAT YOUR AGENCY ADMINISTERS IS THE BASIS FOR A SEPARATE DATA SYSTEM (YOU SELECTED "YES" AT M6), PLEASE RESPOND TO U5. OTHERWISE, PLEASE CONTINUE TO V1.

U5. Can the survey data that your agency collects be linked to participant records in the WIC Information System?

- Yes..... 1
- No 0

IF YOU RESPONDED "YES" AT U5, PLEASE RESPOND TO U6. OTHERWISE, PLEASE CONTINUE TO V1.

U6. In what ways does your agency use the linked survey data?

Select all that apply

- Service delivery or program management 1
- Program evaluation 2
- Research 3
- Other 4

Specify

ALL RESPONDENTS

Breastfeeding Reporting

The previous sections asked questions about how your agency collects information on participants' breastfeeding and requested current estimates. The questions in this section are about how your agency reports that information.

ALL RESPONDENTS

V1. In addition to USDA's reporting requirements, to whom are your agency's breastfeeding estimates reported? How frequently are breastfeeding-related reports generated for each audience internal to WIC and external to WIC? (Mark all that apply per row.)

	No reporting to this audience	Real-time reports can be generated as needed	Monthly	Quarterly	Once or twice per year	Less often than once per year
--	-------------------------------	--	---------	-----------	------------------------	-------------------------------

Internal to WIC

a. State WIC agency	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
b. Local agencies	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
c. Local agency or clinic staff	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>

External to WIC

d. FNS regional office	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
e. CDC	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
f. Other federal agency (specify)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>

g. State or local health authority	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
h. State or local legislators	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
i. Hospitals	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
j. Community coalitions	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
k. Researchers	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
l. Professional organization conferences	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
m. Peer-reviewed publications	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
n. Public	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>

ALL RESPONDENTS

V2. Now we would like for you to share copies of breastfeeding reports your agency produced from at least the past year. Please include reports meant for both internal and external audiences. For reports available on a public website, please copy the URL into the corresponding text field below. For reports available as electronic files, please include printed copies of the appropriate files. For each report, please provide a brief description of the report's content and the intended audience. Note: These reports will not be shared outside of FNS.

Website URL

Description

Website URL

Description

Website URL

Description

Attached File

Description

Attached File

Description

Attached File

Description

ALL RESPONDENTS

V3. Please share any additional comments you have about your agency's breastfeeding measures and data systems.



Thank you for completing Part 2 of the WIC Breastfeeding Policy Inventory!

Please submit your responses in the web survey by visiting <https://www.wicbpi.org> and entering your agency username and password. Once you submit your survey online, you will not be able to make any additional changes.

If you need assistance, please contact the helpdesk at survey@wicbpi.org or 855-282-8493 (toll-free).

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