United States Department of Agriculture

WIC Participant and Program Characteristics 2016 Final Report

U.S. Department of Agriculture | Food and Nutrition Service | Office of Policy Support | April 2018

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Submitted to

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This study was conducted under Contract No. AG-3198-C-11-0010 with the Food and Nutrition Service. This report is available on the Food and Nutrition Service website at [insert link here].

Suggested Citation

Thorn, B., Kline, N., Tadler, C., Budge, E., Wilcox-Cook, E., Michaels, J., Mendelson, M., Patlan, K. L., & Tran, V. (2018). *WIC Participant and Program Characteristics 2016*. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service.

Acknowledgements

This report was prepared by Insight Policy Research, Inc. (Insight) under Contract Number AG-3198-C-11-0010 from the U.S. Department of Agriculture, Food and Nutrition Service. It represents a team effort in which many individuals made key contributions in addition to the authors. We gratefully acknowledge their assistance. In particular, we recognize Renata Slayton, Jinee Burdg, and Anna Potter Clifford, Project Officers, for their leadership and guidance. We also thank the numerous FNS staff who have provided support, expert advice, and encouragement to the Insight team. Their insightful comments on the interim deliverables and throughout the study greatly improved this research.

The authors also express appreciation to the dedicated individuals in each of the 90 State agencies that participated in the PC2016 study. Their time and effort to provide complete and accurate data files made this research possible.

The authors gratefully acknowledge the numerous individuals from Insight and Abt Associates (Abt) who provided valuable assistance throughout this study. In particular, at Insight, we thank Denise Bellows (Insight) for her project management and organization of all aspects of the study. At Abt, we thank Don Laliberty, whose programming expertise was essential to the comprehensive analysis of the data, and Susan Bartlett, for her guidance and expertise. Also at Insight, we thank Dar Haddix for editing this report and Kim Kerson for her assistance with production. Carole Trippe (Insight), Carissa Climaco (Abt), Brittany McGill (Insight), and Huili Liu (Insight) all provided useful suggestions on the content of this report.

Contents

Tables

Figures

Executive Summary

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is administered by the U.S. Department of Agriculture's Food and Nutrition Service (FNS).[1] WIC benefits include nutritious supplemental foods; nutrition education; counseling, including breastfeeding promotion and support; and referrals to healthcare, social services, and other community providers for pregnant, breastfeeding, and postpartum (nonbreastfeeding) women and infants and children up to age 5. For pregnant women, WIC aims to improve fetal development and reduce the incidence of low birth weight, short gestation, and maternal anemia through intervention during the prenatal period. For infants and children, WIC seeks to provide nutritious foods during critical times of growth and development to preserve and protect infant and child health. For breastfeeding and postpartum women, WIC strives to improve dietary intake and promotes breastfeeding as the normative standard for infant feeding. Most WIC participants are prescribed a set of specific foods tailored to the participant's nutritional needs, known as a food package.

To receive WIC benefits, an individual must be categorically eligible: a pregnant woman during pregnancy and up to 6 weeks after the end of her pregnancy, a breastfeeding woman up to 1 year after the birth of her infant, a nonbreastfeeding postpartum woman up to 6 months after the end of her pregnancy, an infant up to age 1 (the first birthday),[2] or a child up to age 5 (the fifth birthday).[3] Each applicant also must be income-eligible and at nutritional risk and meet residency requirements. WIC delivers food benefits to participants through food instruments (FIs) in the form of vouchers, checks, or electronic benefit transfer cards. Participants may redeem these FIs for foods they have been prescribed (for example, milk, juice, and cereal) from authorized retail vendors at no charge.

WIC was established in 1972 by an amendment to the Child Nutrition Act of 1966 (Pub. L. 89–642, as amended). WIC is a nonentitlement, discretionary program. In April 2016, 8.8 million women, infants, and children participated in WIC. For fiscal year 2016, Congress appropriated $6.35 billion for the program.

Since 1988, FNS has produced biennial reports on WIC participant and program characteristics (PC). This information is used for program monitoring and for managing WIC information needs such as estimating budgets, submitting civil rights reports,[4] identifying research needs, and reviewing current and proposed WIC policies and procedures. These biennial reports include information on the following topics:

- The demographic characteristics and income of WIC participants
- The nutritional risks of WIC participants
- The breastfeeding initiation rates and duration estimates for WIC participants
- WIC participation for migrant families[5]
- Other topics as deemed appropriate by the Secretary of Agriculture

[1] For all references to WIC regulations in this report, see Special Supplemental Nutrition Program for Women, Infants and Children (2014a).
[2] An infant must be recertified as a child after the infant's first birthday.
[3] A child is eligible for WIC until the child's fifth birthday.
[4] The collection and reporting of racial and ethnic participation data
[5] WIC regulations define a migrant as an individual whose principal employment is in agriculture on a seasonal basis, who has been so employed within the last 24 months, and who has established a temporary abode for the purposes of such employment.

This publication is the 15th report in the WIC PC study series.

A. The 2016 Report

Similar to all WIC PC reports issued since 1992, the 2016 report (PC2016) is based on data collected by the reporting system developed by FNS to compile participant information collected by State agencies. Each of these reports presents information on a census of WIC participants conducted in the sample month of April of the reference year.

For each PC report, a WIC participant is defined as a person who was certified to receive WIC benefits in April of the reference year, including individuals who did not claim an FI in April.[6] In accordance with WIC regulations, this definition includes fully breastfeeding infants who were certified for WIC benefits but were not prescribed a food package, as well as partially breastfeeding women who were not prescribed a food package but whose infants were prescribed a food package. In contrast, for administrative purposes, FNS measures participation based on the number of certified individuals who claimed their FIs each month. As a result of the difference in how participation is defined for PC reports (the number of individuals certified for WIC in April of the reference year) versus FNS administrative data (the number of certified individuals who claimed their FIs in April of the reference year), participation as measured for PC2016 is approximately 15.5 percent greater than participation as measured for program reports based on FNS administrative data for April 2016. The difference between the two measures has increased in recent years. For example, the number of participants was approximately 11 percent greater according to PC2014 data versus program reports for April 2014.

1. Participant Records

The current system for reporting participant data is based on the automated transfer of a set of 20 data items, known as the Minimum Data Set (MDS), by State agencies to FNS. State and local WIC staff collect these data to confirm applicant eligibility for WIC benefits and issue FIs. FNS developed the MDS in collaboration with the Information Committee of the National WIC Association (formerly the National Association of WIC Directors) and the Centers for Disease Control and Prevention (CDC).

For PC2016, all 90 State agencies submitted MDS data on a census of WIC participants. The State agency-maintained information systems that served as the data sources for PC2016 did not always contain complete information on every WIC participant; this was also the case for prior PC reports. However, overall reporting has improved substantially over time; incomplete data reporting was more prevalent for prior reports. For PC2016, data reporting approached 100 percent for all but a few variables.

PC2016 data may be unreported for a variety of reasons, some of which may indicate differences between participants with unreported data and those with reported data. Assumptions regarding missing data vary by the nature of the variable and the category of WIC participant. For these reasons, Insight Policy Research adopted a uniform strategy for preparing all tables in this report. Unreported data were included when calculating the percentage distributions for each characteristic; see the rows and columns in each table labeled “not reported.” Although including missing data in the denominators for all calculations tended to place the estimates for each characteristic at a lower bound, this approach enabled the study team to present tabulations in a consistent manner throughout the report. This approach also ensured all information needed to calculate upper bound estimates was readily available

[6] Connecticut submitted data for August 16 through September 15, 2016, rather than for April 2016.

in every table. Caution should be used in comparing results across groups or over time. Missing data must always be considered in gauging differences among groups or categories of WIC participants or in analyzing trends across years.

B. The 2016 WIC Program

In 2016, WIC provided services in all 50 States; the District of Columbia; and 5 U.S. territories (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands) through State and local agencies, including 34 Indian Tribal Organizations that served as State agencies. The 90 State agencies that reported PC2016 data operated more than 1,800 local agencies nationwide. Ten State agencies[7] served nearly three-fifths (57.7 percent) of all WIC participants; two State agencies—California and Texas—provided services to more than a quarter (26.9 percent) of WIC participants.

C. Participant Characteristics in 2016

This report describes the findings in six main topic areas: WIC enrollment and demographic characteristics of participants; income and poverty among WIC participants; nutritional risks assigned to WIC participants and the underlying blood chemistry and anthropometric measures related to those risks; risk priority levels assigned to WIC participants; breastfeeding initiation and duration rates among WIC infants and children; and characteristics of migrant participants. This section describes key findings for each of these topic areas.

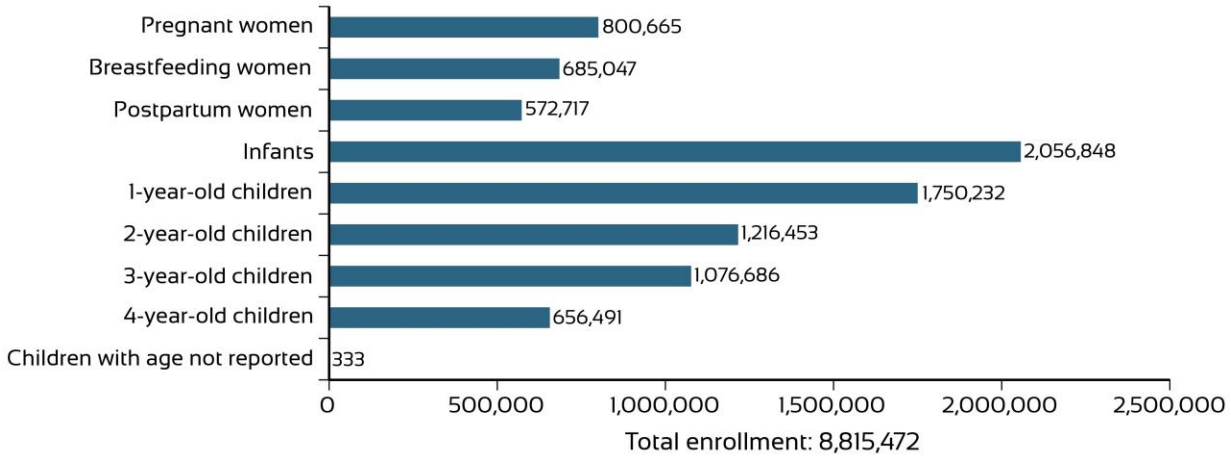
1. Enrollment and Demographic Characteristics

a. Enrollment

In April 2016, 8,815,472 women, infants, and children participated in WIC (see figure ES.1). Participation in WIC generally grew steadily between 1972 and 2010 but has since declined. Participation in 2016 was 5.2 percent lower than in 2014, continuing a 4.4-percent decrease from 2012 to 2014 and a 2.9-percent decrease from 2010 to 2012.

[7] California, Florida, Georgia, Illinois, Michigan, New York, North Carolina, Ohio, Pennsylvania, and Texas

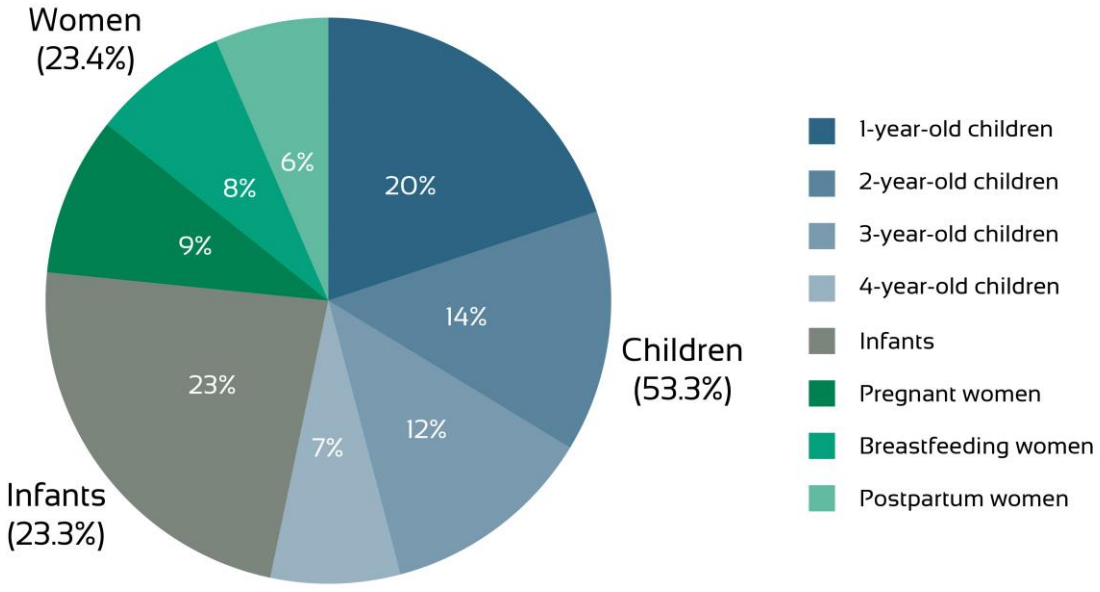
Figure ES.1. Number of Participants by Participant Category and Age of Children at Certification



Note
The data presented in this chart for pregnant, breastfeeding, and postpartum women and infants is shown in table 2.1. The total number of children by age group is shown in table 4.8.

Slightly more than half (53.3 percent) of WIC participants in 2016 were children (see figure ES.2). Infants accounted for 23.3 percent of participants, and women accounted for 23.4 percent. These distributions have been fairly consistent over the years. Pregnant women made up 9.1 percent of WIC participants overall, followed by breastfeeding women at 7.8 percent and postpartum women at 6.5 percent. In 2012, the proportion of breastfeeding women was higher than the proportion of postpartum women for the first time in the history of WIC; this trend continued through 2016. This shift toward higher rates of breastfeeding among WIC women is consistent with continually increasing rates of breastfeeding initiation for WIC infants.

Figure ES.2. Percentage of Participants by Participant Category and Age of Children at Certification



Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

b. Age

Most (85.5 percent) pregnant women participating in WIC in April 2016 were aged 18 to 34, as were 84.0 percent of breastfeeding and 86.8 percent of postpartum women. Only 2.9 percent of women participants were aged 17 or younger. The proportion of women aged 35 and older was 11.7 percent in 2016, which represents a substantial increase over the long term, as only 2.9 percent of women participants were in this age category in 1992. This slow trend away from teenage childbearing and toward older childbearing is consistent with general fertility trends in the United States.

Most (90.8 percent) infant participants were certified for WIC benefits during their first 3 months of life. Child participation decreased as age increased; at the time of most recent certification, 37.2 percent of child participants were 1 year old, whereas only 14.0 percent were 4 years old. The proportion of 1-year-old children participating in WIC has increased since 2012, but the proportion of 4-year-old children participating has decreased during the same time period.

c. Trimester of Enrollment

In 2016, more than half (53.8 percent) of pregnant WIC participants enrolled in the program during the first trimester of pregnancy. Most of the remainder (36.6 percent) of pregnant women enrolled during the second trimester. Only 9.4 percent enrolled during the third trimester. The proportion of pregnant women who enrolled during the first trimester decreased from 54.5 percent in 2014 to 53.8 percent in 2016, continuing a downward trend from the 2.4-percentage-point decrease between 2012 and 2014.

d. Race and Ethnicity

The Office of Management and Budget (1997) requires a WIC participant's race and ethnicity to be reported separately. One measure records whether the participant is Hispanic/Latino, and the second records the racial category or categories; multiple racial identifications are permitted. In 2016, according to racial data reported by State agencies, 58.6 percent of WIC participants were White only, 20.8 percent were Black or African American only, 10.3 percent were American Indian or Alaska Native only, and 4.4 percent were either Asian only or Native Hawaiian or Other Pacific Islander only. Two or more races were reported for 5.8 percent of WIC participants. For ethnicity, 41.8 percent of participants were reported as Hispanic/Latino. Race and ethnicity reporting stayed relatively constant from 2014 to 2016. These findings suggest the distribution of race and ethnicity is very different for WIC participants than for the general U.S. population; participants are much more likely to be American Indian or Alaska Native, Black or African American, or Hispanic/Latino and much less likely to be White.

2. Income of WIC Participants

a. Participation in Other Programs

WIC legislation allows applicants to meet income eligibility requirements through participation in qualifying means-tested benefit programs such as Temporary Assistance for Needy Families (TANF), the Supplemental Nutrition Assistance Program (SNAP), and Medicaid. In 2016, 74.9 percent of WIC participants reported receiving benefits from at least one of these three national public assistance programs, up from 72.8 percent in 2014. With respect to the proportion of participants served by each program, 6.5 percent of participants reported receiving TANF benefits, a decrease of 1.0 percentage points from 2014; 33.2 percent received SNAP benefits, a decrease of 1.9 percentage points; and 71.0 percent of WIC participants received Medicaid benefits, an increase of 2.2 percentage points. Only 5.1 percent reported receiving benefits from all three programs.

These findings likely underestimate participation in these programs. One potential reason for underreporting is that WIC staff may refer participants to other social service and/or healthcare programs; as a result, participant enrollment in other programs subsequent to WIC certification may not be captured in the estimates presented here. Another consideration is that constraints in various WIC management information systems, as well as required procedures for documenting income and participation in other programs, may have limited the number of other benefit programs WIC staff were able to enter into State agency management information systems for an applicant.

b. Household Size

In April 2016, the mean household size for WIC participants was 4.1 persons.

c. Income

Among WIC participants who reported income,[8] the average annualized income of WIC families or economic units in 2016 was $18,626, an increase of 7.2 percent from 2014. This increase is consistent with broader economic data showing economic growth since 2014. Increases in average income were seen across all participant categories and racial and ethnic categories.

Across participant categories, household income was highest for breastfeeding women ($19,783) and lowest for postpartum women ($16,248). Across racial and ethnic groups, average household income was lowest for Black or African American participants ($14,309) and highest for Asian participants ($22,433). Findings about income must be interpreted with caution given that household income was not reported for 8.3 percent of participants.

d. Poverty Status

WIC serves some of the Nation's most vulnerable households. In 2016, almost two-thirds (65.6 percent) of all WIC participants reported income at or below the Federal Poverty Guidelines. These income guidelines for poverty vary based on household size and residency,[9] but in most areas served by WIC, the poverty guideline for a household of four was $24,300 per year (U.S. Department of Health and Human Services [HHS], 2016). Almost one-third (32.5 percent) of participants reported income equal to or less than 50 percent of the Federal Poverty Guidelines. In comparison, only 13.5 percent of the general U.S. population reported income below the poverty thresholds (U.S. Department of Labor, Bureau of Labor Statistics, n.d.).[10]

Between 2014 and 2016, as overall average income for the Nation increased, the proportion of WIC participants who reported income below the Federal Poverty Guidelines decreased by 1.8 percentage points. This decline reversed a pattern of steady increases in the percentage of WIC participants in poverty from 2002 to 2014. The increase in average income and decreases in the proportion of participants in poverty were seen across all participant categories and racial and ethnic categories.

[8] About one-tenth (8.3 percent) of WIC participants did not report income, income period, or household size.
[9] HHS issues Federal Poverty Guidelines each year. See HHS (2016) for the 2016 guidelines.
[10] The Federal poverty thresholds issued by the U.S. Census Bureau and used in the analysis of the general U.S. population are based on family income, size, and age composition. The Federal Poverty Guidelines issued by HHS and used in the analysis of the WIC population are based only on family income and size.

3. Nutritional Risk

For PC2016, State agencies could report up to 10 nutritional risks for each participant. State agencies reported only one nutritional risk for 44.6 percent of participants and more than three nutritional risks for only 9.3 percent of participants. At least one nutritional risk was reported for almost all WIC participants in 2016.

For women, high weight-for-height and inappropriate (both high and low) weight gain during pregnancy were the predominant risks reported. For children, State agencies most frequently reported the nutritional risks of inappropriate nutrition practices and high weight-for-height/length. Almost four-fifths (79.7 percent) of WIC infants were recorded to be at risk at least partly because of the WIC eligibility of their mothers or because their mothers were at risk during pregnancy.

4. Risk Priority

When a State agency reaches its maximum caseload—which is determined by FNS based on the agency's funding level and predicted case turnover—it uses a ranking system with seven federally defined risk priority levels[11] to prioritize eligible applicants according to their relative levels of risk.[12] These seven priority levels, and the categories and nutritional risks of the applicants to whom each risk priority is assigned, are as follows:

- Priority I: Pregnant and breastfeeding women and infants at medically based nutritional risk
- Priority II: Infants up to 6 months old born to WIC mothers or non-WIC mothers who were at nutritional risk during pregnancy
- Priority III: Children at medically based nutritional risk
- Priority IV: Pregnant and breastfeeding women and infants at dietary nutritional risk
- Priority V: Children at dietary nutritional risk
- Priority VI: Postpartum women at nutritional risk
- Priority VII: Individuals certified based on homelessness or migrant status

Almost two-thirds of participants (71.0 percent) in April 2016 were assigned Priority Levels I, II, or III, which are reserved for participants with medically based nutritional risks. More than one-fifth of participants (22.5 percent) were assigned Priority V, the most frequently assigned risk priority based on dietary nutritional risks. Priority VII, which is reserved for participants who are homeless, migrants, or at risk of regression to a less-healthy nutritional status, was assigned to only 0.2 percent of participants. In April 2016, no State agency was required to use risk priority levels to determine which applicants would receive benefits.

5. Breastfeeding Rates

a. Breastfeeding Initiation

National breastfeeding estimates are based on data from the 83 State agencies that provided breastfeeding initiation data for at least 75 percent of 6- to 13-month-old infants and children served by

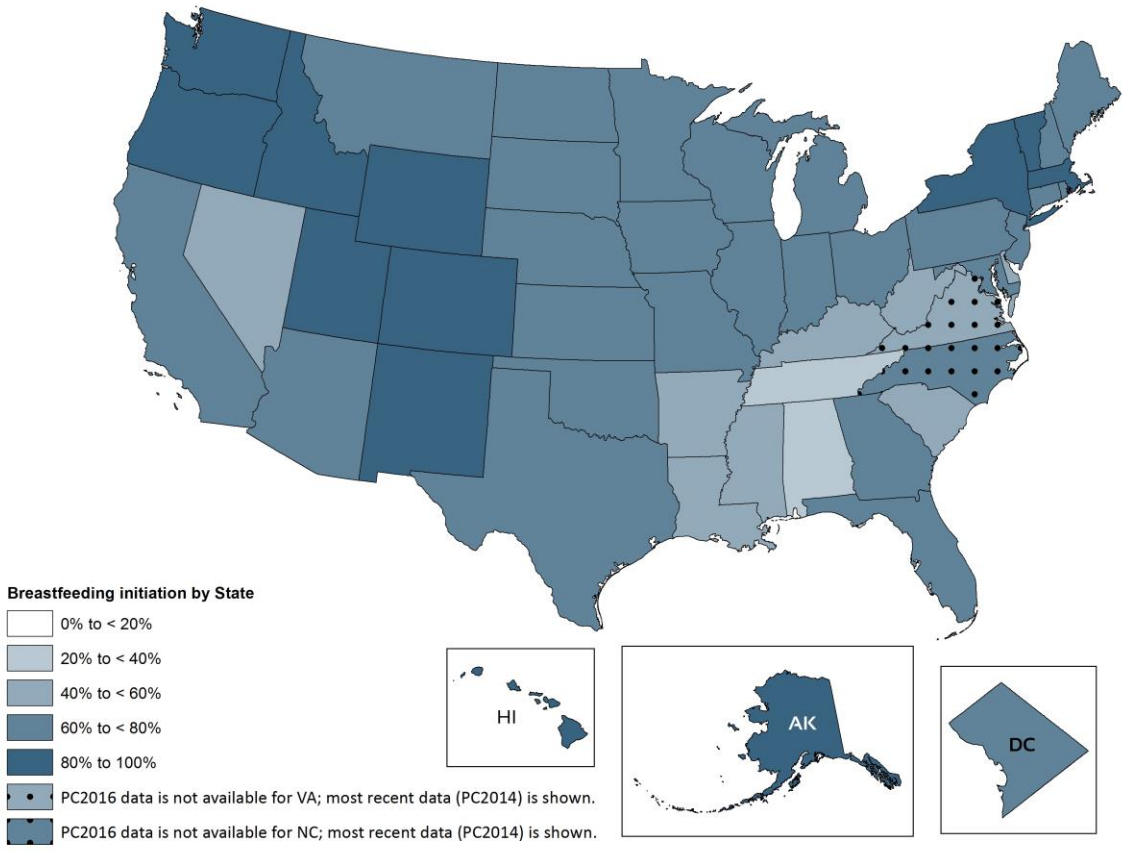
[11] See Special Supplemental Nutrition Program for Women, Infants and Children (2014a).
[12] Since approximately 2000, Congress has funded WIC at a level sufficient for the program to serve all applicants.

the State agency. Breastfeeding was initiated for 71.0 percent of these infants and children. Rates of breastfeeding initiation varied considerably among these State agencies, from 34.5 percent to 96.7 percent (see figure ES.3). The PC1998 benchmark estimate of breastfeeding initiation was 41.5 percent. With the exception of 2006–2008, the breastfeeding initiation rate increased approximately 4 percentage points between each PC reporting period from 1998 to 2012. Since 2012, breastfeeding initiation rates have increased in smaller increments: 2.7 percentage points from 2012 to 2014 and 1.2 percentage points from 2014 to 2016.

b. Breastfeeding Duration

PC2016 data were insufficient to calculate national estimates of breastfeeding duration; however, 68 State agencies provided duration data for at least 75 percent of 6- to-13-month-old infants and children. The median breastfeeding duration for infants and children served by these agencies was 13.0 weeks. The median duration was fewer than 10 weeks for 28 of the agencies, between 10 and 19 weeks for 20 of the agencies, and 20 weeks or more for the remaining 15 agencies.

Figure ES.3. Breastfeeding Initiation Rates by State for Infant and Child Participants Aged 6–13 Months



6. Migrant Status

In 2016, 37,246 WIC participants were identified as migrants. Migrant participants made up less than half of 1 percent of the Nation's total WIC population. Almost two-thirds (65.1 percent) of these participants were located in California or Florida. In general, migrant participants had similar

certification categories, average income, and nutritional risks as nonmigrant participants, but there were a few key differences:

- Almost three-quarters (72.7 percent) of migrants were in poverty compared with 65.5 percent of nonmigrants.
- More than half of migrants (53.0 percent) were assigned the nutritional risk of homelessness/migrancy, whereas only 0.5 percent of the general WIC population was assigned that nutritional risk.
- Migrant children were more frequently overweight than other WIC children. Among 1-year-old children, 34.6 percent of migrants were overweight compared with 31.3 percent of nonmigrants. The difference was larger for children aged 2 and older: 28.0 percent of migrants were overweight versus 22.2 percent of nonmigrants.

D. Food Package Data

Among the MDS items State agencies were required to provide were food prescription data and food package type. These data will be described in a separate report on WIC PC2016 food packages (expected to be released in November 2017).

E. WIC PC2016 Data Products

In addition to the biennial WIC PC reports and the companion PC food package reports, FNS produces several data products to enable further research on WIC. A national sample dataset is available for use by researchers upon request. WIC PC data are often used in other research studies conducted by FNS. Other organizations, such as CDC and the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine, use PC data in their research efforts related to WIC participants and low-income women and children in general.

Chapter 1. Introduction

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is administered by the U.S. Department of Agriculture's (USDA) Food and Nutrition Service (FNS).[13] WIC provides benefits such as nutritious supplemental foods; nutrition education; counseling, including breastfeeding promotion and support; and referrals to healthcare, social service, and other community providers for pregnant, breastfeeding, and postpartum (nonbreastfeeding)[14] women and infants and children up to age 5. By intervening during the prenatal period, WIC seeks to improve fetal development and reduce the incidence of low birth weight, short gestation, and maternal anemia. WIC benefits help maintain and improve the health and development of infants and children who are at nutritional risk. For breastfeeding and postpartum women, WIC seeks to improve dietary intake and promotes breastfeeding as the normative standard for infant feeding. Most WIC participants are prescribed a set of specific foods tailored to the participant's nutritional needs, known as a food package.

WIC issues food benefits to participants through food instruments (FIs), typically vouchers, checks, or electronic benefit transfer (EBT) cards. Participants may redeem these benefits at authorized retail vendors for the foods they have been prescribed.

WIC was established in 1972 by an amendment to the Child Nutrition Act of 1966 (Pub. L. 89–642, as amended) to counteract the negative effects of poverty on prenatal and pediatric health. In April 2016, 8.8 million women, infants, and children participated in WIC. For fiscal year (FY) 2016, Congress appropriated $6.35 billion for WIC.

Since 1988, FNS has produced biennial reports on WIC participant and program characteristics (PC). FNS uses this regularly updated information for program monitoring and for managing WIC information needs such as estimating budgets, submitting civil rights reports,[15] identifying research needs, and reviewing current and proposed WIC policies and procedures. These biennial reports include information on the following topics:

- The demographic characteristics and income of WIC participants
- The nutritional risks of WIC participants
- The breastfeeding initiation rates and duration estimates for WIC participants
- WIC participation for migrant families[16]
- Other topics as deemed appropriate by the Secretary of Agriculture

For each PC report, a WIC participant is defined as a person who was certified to receive WIC benefits in April of the reference year, including individuals who did not claim an FI in April. The reference period for PC2016 is April 2016. In accordance with WIC guidelines, this definition includes fully breastfeeding infants who were certified for WIC benefits but were not prescribed a food package. It also includes

[13] For all references to WIC regulations in this report, see Special Supplemental Nutrition Program for Women, Infants and Children (2014a).
[14] WIC regulations define a postpartum woman as a nonbreastfeeding new mother. A postpartum mother is eligible for WIC for up to 6 months after the end of her pregnancy.
[15] Collection and reporting of racial and ethnic participation data
[16] WIC regulations define a migrant as an individual whose principal employment is in agriculture on a seasonal basis, who has been so employed within the last 24 months, and who has established a temporary abode for the purposes of such employment.

partially breastfeeding women who were not prescribed a food package, provided their infants were prescribed a food package.

This introduction briefly describes the WIC program and WIC program reports. The remainder of the chapter explains WIC benefits and eligibility requirements, describes the history and goals of the WIC PC report series, and outlines the organization of the chapters that follow in this report.

A. Program Operations

WIC delivers services in all 50 States; the District of Columbia; and 5 U.S. territories (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands) through State and local agencies. In April 2016, there were 90 State agencies and more than 1,800 local agencies nationwide, including 34 Indian Tribal Organizations (ITOs) that served as State agencies. Participants receive services at local agencies. Table 1.1 presents information on the number of local agencies operated by State agencies. Ten State agencies served nearly three-fifths (57.7 percent) of all WIC participants.[17] Two State agencies—California and Texas—provided services to more than a quarter (26.9 percent) of WIC participants.

At the Federal level, FNS—through its seven administrative regional offices—provides cash grants to State agencies to support nutrition services and program administration, sets nutrition risk eligibility standards, issues regulations and monitors compliance with these regulations, offers technical assistance, and conducts studies of program operation and performance. State agencies allocate funds to local agencies, monitor compliance with Federal and State agency regulations, and supply technical assistance to local agency staff.

Since 1987, State agencies have negotiated rebates provided by manufacturers of infant formula; infant foods (cereal, fruits, vegetables, and meats); and juice to reduce food costs. State and local agencies use these rebates to provide WIC services to larger numbers of eligible applicants.

[17] California, Florida, Georgia, Illinois, Michigan, New York, North Carolina, Ohio, Pennsylvania, and Texas

Table 1.1. Distribution of Local Agencies and Participants by State Agency

Region and State Agency	Number of Local Agencies[a]	Percent of All Local Agencies	Percent of Participants
Total Participants	1,832	100.0	100.0
Northeast			
Connecticut	16	0.9	0.6
Maine	8	0.4	0.3
Massachusetts	35	1.9	1.4
New Hampshire	4	0.2	0.2
New York	97	5.3	6.1
Rhode Island	11	0.6	0.3
Vermont	12	0.7	0.2
Indian Township Passamaquoddy Reservation (ME)	1	0.1	< 0.1
Pleasant Point Passamaquoddy Reservation (ME)	1	0.1	< 0.1
Seneca Nation (NY)	1	0.1	< 0.1
Mid-Atlantic			
Delaware	2	0.1	0.3
District of Columbia	4	0.2	0.2
Maryland	18	1.0	1.8
New Jersey	16	0.9	1.8
Pennsylvania	24	1.3	2.9
Puerto Rico	1	0.1	1.8
Virginia	35	1.9	1.9
U.S. Virgin Islands	2	0.1	0.1
West Virginia	8	0.4	0.5
Southeast			
Alabama	11	0.6	1.6
Florida	44	2.4	6.6
Georgia	19	1.0	3.1
Kentucky	63	3.4	1.4
Mississippi	22	1.2	1.1
North Carolina	85	4.6	3.3
South Carolina	6	0.3	1.5
Tennessee	14	0.8	2.0
Eastern Band of Cherokee Indians (NC)	1	0.1	< 0.1
Mississippi Band of Choctaw Indians	1	0.1	< 0.1
Midwest			
Illinois	98	5.4	3.0
Indiana	40	2.2	2.0
Michigan	48	2.6	3.0
Minnesota	83	4.5	1.5
Ohio	75	4.1	2.8
Wisconsin	69	3.8	1.3

Region and State Agency	Number of Local Agencies[a]	Percent of All Local Agencies	Percent of Participants
Southwest			
Arkansas	1	0.1	1.0
Louisiana	81	4.4	1.6
New Mexico	3	0.2	0.6
Oklahoma	14	0.8	1.2
Texas	66	3.6	11.2
Acoma, Canoncito, Laguna (NM)	1	0.1	< 0.1
Cherokee Nation (OK)	1	0.1	0.1
Chickasaw Nation (OK)	1	0.1	0.1
Choctaw Nation of Oklahoma	1	0.1	0.1
Citizen Potawatomi Nation (OK)	1	0.1	< 0.1
Eight Northern Indian Pueblos Council (NM)	1	0.1	< 0.1
Five Sandoval Indian Pueblos (NM)	1	0.1	< 0.1
Inter-Tribal Council of Oklahoma	1	0.1	< 0.1
Muscogee Creek Nation (OK)	1	0.1	< 0.1
Osage Nation (OK)	1	0.1	< 0.1
Otoe-Missouria Tribe (OK)	1	0.1	< 0.1
Pueblo of Isleta (NM)	1	0.1	< 0.1
Pueblo of San Felipe (NM)	1	0.1	< 0.1
Pueblo of Zuni (NM)	1	0.1	< 0.1
Santo Domingo Pueblo (NM)	1	0.1	< 0.1
Wichita, Caddo, Delaware (OK)	1	0.1	0.1
Mountain Plains			
Colorado	38	2.1	1.1
Iowa	20	1.1	0.8
Kansas	62	3.4	0.8
Missouri	117	6.4	1.6
Montana	28	1.5	0.2
Nebraska	13	0.7	0.5
North Dakota	22	1.2	0.2
South Dakota	61	3.3	0.2
Utah	13	0.7	0.8
Wyoming	19	1.0	0.1
Cheyenne River Sioux Tribe (SD)	1	0.1	< 0.1
Eastern Shoshone Tribe (WY)	1	0.1	< 0.1
Northern Arapaho Tribe (WY)	1	0.1	< 0.1
Omaha Nation (NE)	1	0.1	< 0.1
Rosebud Sioux Tribe (SD)	1	0.1	< 0.1
Santee Sioux Nation (NE)	1	0.1	< 0.1
Standing Rock Sioux Tribe (ND)	1	0.1	< 0.1
Three Affiliated Tribes (ND)	1	0.1	< 0.1
Ute Mountain Ute Tribe (CO)	1	0.1	< 0.1
Winnebago Tribe (NE)	1	0.1	< 0.1

Region and State Agency	Number of Local Agencies[a]	Percent of All Local Agencies	Percent of Participants
Western			
Alaska	13	0.7	0.2
American Samoa	1	0.1	0.1
Arizona	21	1.2	1.9
California	84	4.6	15.7
Guam	1	0.1	0.1
Hawaii	17	0.9	0.4
Idaho	9	0.5	0.5
Nevada	16	0.9	0.8
Northern Mariana Islands	1	0.1	< 0.1
Oregon	34	1.9	1.1
Washington	62	3.4	2.1
Inter Tribal Council of Arizona	12	0.7	0.1
Inter-Tribal Council of Nevada	1	0.1	< 0.1
Navajo Nation (AZ)	1	0.1	0.1

Notes
Percentages may not add to 100.0 because of rounding.
[a] The number of local agencies was derived from State agency participation files containing identifiers for local agencies charged with administering WIC services.

B. Participant Benefits

WIC seeks to improve the health of program participants by providing nutritious food and nutrition education, including breastfeeding promotion and support, and referrals to healthcare. This section describes the benefits provided by WIC.

1. Food Packages

Most State agencies issue WIC FIs in the form of vouchers, checks, or EBT cards to participants, who use them to purchase a set of prescribed foods, known as a food package. Food packages are customized to provide nutrients known to be lacking in the diets of target populations. WIC regulations specify different food packages for different categories of participants. These packages include foods that are good sources of nutrients, including calcium, iron, protein, and vitamins A and C. Infant food packages reflect the developmental needs of infants and the infant feeding practice guidelines of the American Academy of Pediatrics.[18] Other food packages align with the recommendations provided in the Dietary Guidelines for Americans[19] and also reflect the recommended eating patterns for preschool children and the special added nutritional requirements of pregnant and breastfeeding women.[20]

In March 2014, FNS implemented new regulations[21] for WIC food packages to align the packages more closely with updated nutrition science, promote long-term breastfeeding, and permit some substitutions within food categories to meet the needs of WIC's diverse population better.[22] At the time PC2016 data were collected, food packages for women and children included milk and milk substitutes (cheese, soy-based beverage, tofu, and yogurt); eggs; legumes (dry beans, canned beans, and peanut butter); whole grains (whole-grain bread, brown rice, oatmeal, soft corn and whole-wheat tortillas, bulgur, barley, and whole-wheat pasta); hot and cold breakfast cereals; juice; and a cash value benefit to be used for the purchase of fruits and vegetables. Food packages for infants provided infant formula as well as cereal, fruits and vegetables, and meats appropriate for infants. Fully breastfeeding women (up to 1 year postpartum) may also receive canned fish. Infant formulas and nutritional drinks may also be prescribed for participants with qualifying conditions.

Most State agencies deliver food benefits through FIs in the form of checks or vouchers that participants can use to purchase their supplemental foods at authorized retail vendors. Participants can redeem these checks or vouchers only for foods prescribed by health or nutrition professionals at local WIC agencies. The prescribed food items and amounts are specified on each FI. For one State agency, participants claim food at specified distribution points. Other State agencies deliver benefits through EBT; as of April 2016, 17 had implemented EBT statewide. All other State agencies were in the process of planning for or piloting EBT to meet the USDA deadline to issue benefits solely through EBT by 2020 (USDA FNS, 2017). During the past 14 years, FNS has worked with volunteer State agencies to design and test EBT systems to deliver WIC benefits.

[18] See Special Supplemental Nutrition Program for Women, Infants and Children (2014b) and Institute of Medicine (IOM; 2005) for more information.
[19] These guidelines, which are developed jointly and updated every 5 years by HHS and USDA, provide recommendations on how to attain and maintain a healthy weight, reduce risks of chronic disease, and promote overall health.
[20] See IOM (2005) for more information.
[21] See Special Supplemental Nutrition Program for Women, Infants and Children (2014b)
[22] These changes were based largely on recommendations issued by IOM (2005).

2. Nutrition Education and Counseling

Nutrition education plays a crucial role in WIC as an essential benefit intended to achieve positive changes in participant knowledge, attitudes, and behaviors about food consumption. FNS regulations require State and local agencies to offer participants (or their mothers or other care providers) at least two nutrition education sessions during each certification period. Participants receive nutrition education and counseling through a variety of methods; these include one-on-one, online, or group classes on a variety of topics related to health and nutrition. As part of nutrition education and counseling, State agencies promote breastfeeding as the normative standard for infant nutrition to pregnant and new mothers and provide breastfeeding information and support through anticipatory guidance, counseling, and breastfeeding educational materials.

3. Access to Healthcare and Social Services

Each State agency refers participants to other social services and appropriate healthcare. Through either the provision of onsite health services or referrals to other social service agencies, WIC serves as a link between participants and appropriate healthcare providers or systems. Most local agencies refer clients to a variety of social service programs that provide income support, child support, childcare services, and substance abuse counseling. Coordination between WIC and social service programs increased after 1989, when the Child Nutrition and WIC Reauthorization Act of 1989 (Pub. L. 101–147) established adjunctive and automatic income eligibility for WIC benefits. Applicants are adjunctively income-eligible if they or certain family members can document participation in Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), or Medicaid. WIC regulations also allow State agencies to extend automatic WIC income eligibility to applicants participating in other qualifying means-tested benefit programs.

C. Eligibility For WIC Benefits

Eligibility for receipt of WIC benefits is based on four factors:

- **Categorical Eligibility.** A participant must be a member of one of the following groups: women during pregnancy and up to the first 6 weeks after pregnancy; women up to 1 year postpartum if breastfeeding or up to 6 months postpartum if not breastfeeding; infants up to age 1 (the first birthday); and children up to age 5 (the fifth birthday).
- **Residency.** An applicant must apply for and receive benefits from the State agency in the State or U.S. territory of residence. For example, a Kansas resident cannot be certified to receive WIC benefits in Nebraska. An individual applying for benefits through an ITO must meet residency requirements established by that ITO.

  Income Eligibility. Participants must meet the income eligibility standards set by the State agency in the State or U.S. territory of residence. These agencies must set income restrictions of no less than 100 percent and no more than 185 percent of the Federal Poverty Guidelines issued annually by the U.S. Department of Health and Human Services (HHS). These income guidelines for poverty are based on household size and residency (HHS, 2016).[23] As of April 2016, the income eligibility threshold set by all State agencies was 185 percent of the Federal Poverty

[23] The Federal Poverty Guidelines are the same for the 48 contiguous States, the District of Columbia, and the 5 U.S. territories served by WIC; they are different for Alaska and Hawaii.

Guidelines. In 2016, in most areas served by WIC, a person from a household of four with an annual household income of $44,863 or less was income-eligible for WIC at the 185-percent threshold (USDA FNS, 2015).[24,25]

Applicants who participate in TANF, SNAP, or Medicaid are adjunctively eligible for WIC, and applicants who participate in other means-tested benefit programs with income eligibility thresholds at or below those for WIC are automatically income eligible for WIC. Since the passage of the William F. Goodling Child Nutrition Reauthorization Act of 1998 (Pub. L. 105–336), applicants not certified under adjunctive or automatic eligibility provisions have been required to provide written proof of household income.[26] Examples of acceptable documentation include current paystubs or unemployment stubs, earnings statements, and income tax returns.

- **Nutritional Risk.** An applicant must be determined to be at nutritional risk based on a medical and/or nutritional assessment by a competent professional authority such as a physician, nutritionist, nurse, or other health professional or paraprofessional. At a minimum, height (or length) and weight are recorded; moreover, with the exception of infants younger than 9 months, a hematological test is administered to assess blood iron status. To assess an applicant's level of nutritional risk, State and local agencies must use criteria that meet or exceed the national nutritional risk criteria implemented in April 1999. FNS and the National WIC Association[27] developed this set of approximately 100 detailed criteria with applicable thresholds for determining eligibility based on nutritional risk in response to recommendations issued by the Institute of Medicine (IOM; now known as the Health and Medicine Division;[28] IOM, 1996). Potential risk factors include abnormal weight gain during pregnancy, a history of high-risk pregnancies, low birth weight, being underweight or overweight, anemia, or a pattern of inadequate dietary nutrition. Individuals who are adjunctively income-eligible for WIC because of participation in other qualifying means-tested programs must also be determined to be at nutritional risk to receive benefits.

WIC must operate within annual funding levels established by appropriation law. The number of participants WIC is able to serve each year depends on total funds available as well as on FNS allocation of these funds to individual State agencies. Changes in the cost of food also may affect the number of participants WIC is able to serve. To help State and local agencies prioritize WIC applicants according to need, FNS defined seven risk priority levels based on applicant categorical status and type of nutritional risk. The general purpose of the existing priority system is to give preference to medically based nutritional risks over risks based only on inadequate diet. In 2016, WIC served all eligible individuals who sought benefits, regardless of assigned priority level.

D. Previous Reports on WIC Participant and Program Characteristics

FNS has published 15 previous WIC PC reports. In 1984 (PC1984), 1988 (PC1988), and 1990 (PC1990), FNS and its contractors conducted studies using nationally representative samples of WIC participants.

[24] The Federal Poverty Guidelines established in July 2015 were in effect through June 2016, so these guidelines covered most of the period for which WIC participants active in April 2016 were certified.
[25] In 2016, the WIC income eligibility threshold for a household of four based on annual household income was $56,092 in Alaska and $51,597 in Hawaii.
[26] Although WIC regulations distinguish means-tested programs that qualify applicants for adjunctive income eligibility from programs that qualify applicants for automatic income eligibility, the two mechanisms work similarly with respect to income eligibility.
[27] Formerly the National Association of WIC Directors
[28] Part of the National Academies of Science, Engineering, and Medicine

Data were obtained through mail surveys of State and local agencies; record abstractions at service sites; and, for PC1988, interviews with participants and follow-up data collection on claiming FIs.

The first WIC PC report (1984) collected data from 28 State agencies, 204 local agencies, 356 service sites, and 6,444 participant records. Major findings addressed the following topics:

- The distribution of participants by participant category, priority, and income
- The nutritional risks of WIC participants
- State and local agency coordination with health and social service programs
- The frequency and types of nutrition education provided to WIC participants and the methods of delivery for such education

PC1990 served as a transitional study; it was based on the PC1984 and PC1988 research designs, but it also minimized sample size to conserve research expenditures. A goal for PC1990 and all future studies of WIC participant characteristics was to limit burden on State agencies to encourage them to continue biennial participation in the WIC reporting system. For PC1990, field researchers from Abt Associates (Abt) abstracted data from a nationally representative sample of 2,343 participant records; Abt also surveyed all State agencies to obtain information on WIC program operations.

The methodology Insight Policy Research and Abt used for the PC2016 report was developed by Abt for the PC1992 report. The PC1992 report was substantially different from earlier reports with regard to collecting WIC participation data. In 1992, FNS developed a reporting system that is still in use today. State agencies use this system to provide FNS with all WIC participation data through the routine, automated transfer of a set of 20 data elements, known as the Minimum Data Set (MDS). State agency staff collect these data to certify applicants for WIC benefits, guide nutrition education, and issue FIs. FNS developed the MDS in collaboration with the Information Committee of the National WIC Association and the Centers for Disease Control and Prevention (CDC).

The MDS data items are as follows:

1. **State Agency ID.** A unique number that permits linkage to the State agency where the participant was certified; it is the first 7 digits of the 10-digit Local Agency Code maintained by FNS in the WIC Local Agency Directory (WIC LAD)

2a. **Local Agency ID.** A unique number that permits linkage to the local agency where the participant was certified as eligible for WIC benefits; it is the last 3 digits of the 10-digit Local Agency Code maintained by FNS in the WIC LAD

2b. **Service Site ID.** A unique number that permits linkage to the service site where the participant was certified; for State agencies that submitted service site- or clinic-level data for the WIC LAD, service site IDs appear in the WIC LAD as the 3-digit codes under Administering Agency

Note: For PC2016, State agencies were asked not to substitute Service Site ID for Local Agency ID (item 2a)

3. **Case ID.** A unique record number assigned to each participant to maintain individual privacy at the national level

   Note: For each participant, State agencies were asked to construct a Case ID for their PC2016 data submissions; they were asked not to use the case number of the participant as listed in State agency-held files

4. **Date of Birth.** Month, day, and year of the participant's birth reported in MMDDYYYY format

5. **Race/Ethnicity.** Requires classification of participants based on one ethnicity category (Hispanic/Latino or Non-Hispanic/Latino) and five racial categories, which consist of (1) American Indian or Alaska Native; (2) Asian; (3) Black or African American; (4) Native Hawaiian or Other Pacific Islander; and (5) White. These categories are required by the Office of Management and Budget; one or more racial categories may be selected

   State agencies may report race/ethnicity using one of two formats:

   - Yes/No for each of the categories, generating a six-digit code (1 = Yes; 2 = No)
   - Three digits to represent key combinations of racial selections, with the first digit representing ethnicity and the last two representing race combinations

6a. **Certification Category.** One of five possible categories under which a person is certified as eligible for WIC benefits: (1) pregnant woman; (2) breastfeeding woman; (3) postpartum woman (not breastfeeding); (4) infant (younger than 12 months); and (5) child (12–59 months)

6b–c. **Expected Date of Delivery or Number of Weeks Gestation.** For pregnant women, the projected date of delivery (MMDDYYYY format) or the number of weeks since the last menstrual period as determined at WIC certification

7. **Date of Certification.** The date the person was declared eligible for the most recent WIC certification as of April 2016; month, day, and year should be reported in MMDDYYYY format

8. **Sex.** For infants and children, male or female

9. **Risk Priority Code.** The participant priority level for WIC certification at the time of the most recent WIC certification as of April 2016

10a–c. **Participation in TANF, SNAP, Medicaid.** The participant's reported participation in each of these programs at the time of the most recent WIC certification as of April 2016

11. **Migrant Status.** The participant's migrant status according to the definition of a migrant farmworker in Federal WIC regulations[29]

[29] For this and other references to WIC regulations in the descriptions of the MDS data items, see Special Supplemental Nutrition Program for Women, Infants and Children (2014a).

12. **Number in Family or Economic Unit.** The number of persons in the family or economic unit upon which WIC income eligibility was based

States may report a self-declared number in the family or economic unit for a participant whose income was not required to be determined as part of the WIC certification process. These participants consist of—

- Adjunctively income-eligible participants (eligible because of TANF, SNAP, or Medicaid participation)
- Participants deemed income-eligible under optional procedures available to the State agency in section 246.7(d)(2)(vi–viii) of Federal WIC regulations. These optional procedures are means-tested programs identified by the State to determine automatic WIC income eligibility, income eligibility of pregnant women, and income eligibility of American Indian and instream migrant farmworker applicants

13a–c. **Family or Economic Unit Income.**

- For persons for whom income is determined during the certification process, the income amount that was determined to qualify the participant for WIC at the time of the most recent WIC certification as of April 2016

  FNS will convert income expressed in nonannual measures (weekly, monthly, etc.) to annual amounts

- For descriptive purposes only, for participants whose income was not required to be determined as part of the WIC certification process, the self-reported income at the time of certification; these participants include adjunctively income-eligible participants and those persons deemed eligible under optional procedures available to the State agency in section 246.7(d)(2)(vi–viii) of Federal WIC regulations

  State agencies should not use zero to indicate income values that are missing or not available; zero should indicate only an actual value of zero

Note: Because a large proportion of WIC participants are adjunctively income-eligible, their income information is essential to describe income among the overall WIC population. State agencies are required to provide income information on those adjunctively eligible for WIC according to section 246.7 of Federal WIC regulations

14a–j. **Nutritional Risks Present at Certification.** Highest priority nutritional risks assigned for the most recent WIC certification as of April 2016, up to a maximum of 10; uniform coding is required in submissions from all State agencies according to WIC Policy Memorandum 98-9

15a–b. **Hemoglobin or Hematocrit.** Value for the measure of iron status that applies for the most current WIC certification period as of April 2016

15c. **Date of Blood Test.** Month, day, and year (in MMDDYYYY format) that blood measure was collected and reported; State agencies must submit this for all participants reporting a blood measure

16a–b. **Weight.** Participant's weight measured according to CDC nutrition surveillance program standards (nearest one-quarter pound); State agencies may report weight in grams if weight is not measured in pounds and quarter pounds

17a–b. **Height.** Participant's height (or length) measured according to CDC nutrition surveillance program standards (nearest one-eighth inch); State agencies may report height in centimeters if height is not measured in inches and eighth inches

18. **Date of Height and Weight Measure.** Date (in MMDDYYYY format) of the height and weight measures that were used during the most recent WIC certification period as of April 2016

19a. **Currently Breastfed.** For infants and children aged 6 through 13 months in April 2016, whether the participant was being breastfed at that time

19b. **Ever Breastfed.** For infants and children aged 6 through 13 months in April 2016, whether the participant ever received breastmilk

19c. **Length of Time Breastfed.** For infants and children aged 6 through 13 months in April 2016, the number of weeks the participant received breastmilk

19d. **Date Breastfeeding Data Collected.** For infants and children aged 6 through 13 months in April 2016, the date (in MMDDYYYY format) on which breastfeeding status was reported

20a–n. **Food Codes.** State agencies have the option of providing food data in an item-quantity format or a food package format; the agencies were asked to provide the food package codes or item codes and quantities for all foods prescribed for the participant during the month of April 2016

20o. **Food Package Type.** A code representing the final rule food package descriptor; this descriptor uniquely represents the FNS food package number (I through VII), participant type, breastfeeding status, and (for infants and children only) age associated with the reported food code(s) for that participant

The Supplemental Data Set (SDS) is a set of 11 data items that complement the information provided by the MDS data items. State agencies submit SDS data if it is available. For this report, 84 of the 90 State agencies submitted some or all of the 11 SDS data elements (see appendix table F.1). The SDS data items are as follows:

21. **Date of First WIC Certification.** Date the participant was first certified for WIC in MMDDYYYY format; for pregnant, breastfeeding, and postpartum women, this applies to the current/most recent pregnancy and not to prior pregnancies

22. **Education Level.** For pregnant, breastfeeding, and postpartum women, the highest grade or year of school completed; for infants and children, the highest grade or year of school completed by the mother or primary caretaker

23. **Number in Household in WIC.** The number of people in the participant's household receiving WIC benefits

24. **Date Previous Pregnancy Ended.** For pregnant women, the date that the previous pregnancy ended in MMDDYYYY format

25. **Total Number of Pregnancies.** For pregnant women, the total number of times the woman has been pregnant, including this pregnancy; all live births; and any pregnancies resulting in miscarriage, abortion, or stillbirth

26. **Total Number of Live Births.** For pregnant women, the total number of babies born alive to this woman, including babies who may have died shortly after birth

27a-b. **Prepregnancy Weight.** For pregnant women only, the participant's weight immediately prior to pregnancy; weight may be reported either in pounds and ounces or in grams

28a-b. **Weight Gain During Pregnancy.** For breastfeeding and postpartum women, the participant's weight gain during pregnancy as taken immediately at or prior to delivery; weight gain during pregnancy may be reported in either pounds and quarter pounds or in grams

29a-b. **Birth Weight.** For infants and children, the participant's weight at birth measured according to CDC nutrition surveillance program standards (pounds/ounces); birth weight may be reported either in pounds and ounces or in grams

30a-b. **Birth Length.** For infants and children, the participant's length measured according to CDC nutrition surveillance program standards (nearest one-eighth inch); birth length may be reported either in inches and eighth inches or in centimeters

31. **Participation in the Food Distribution Program on Indian Reservations (FDPIR).** The participant's reported participation in this program at the time of the most recent WIC certification as of April 2016

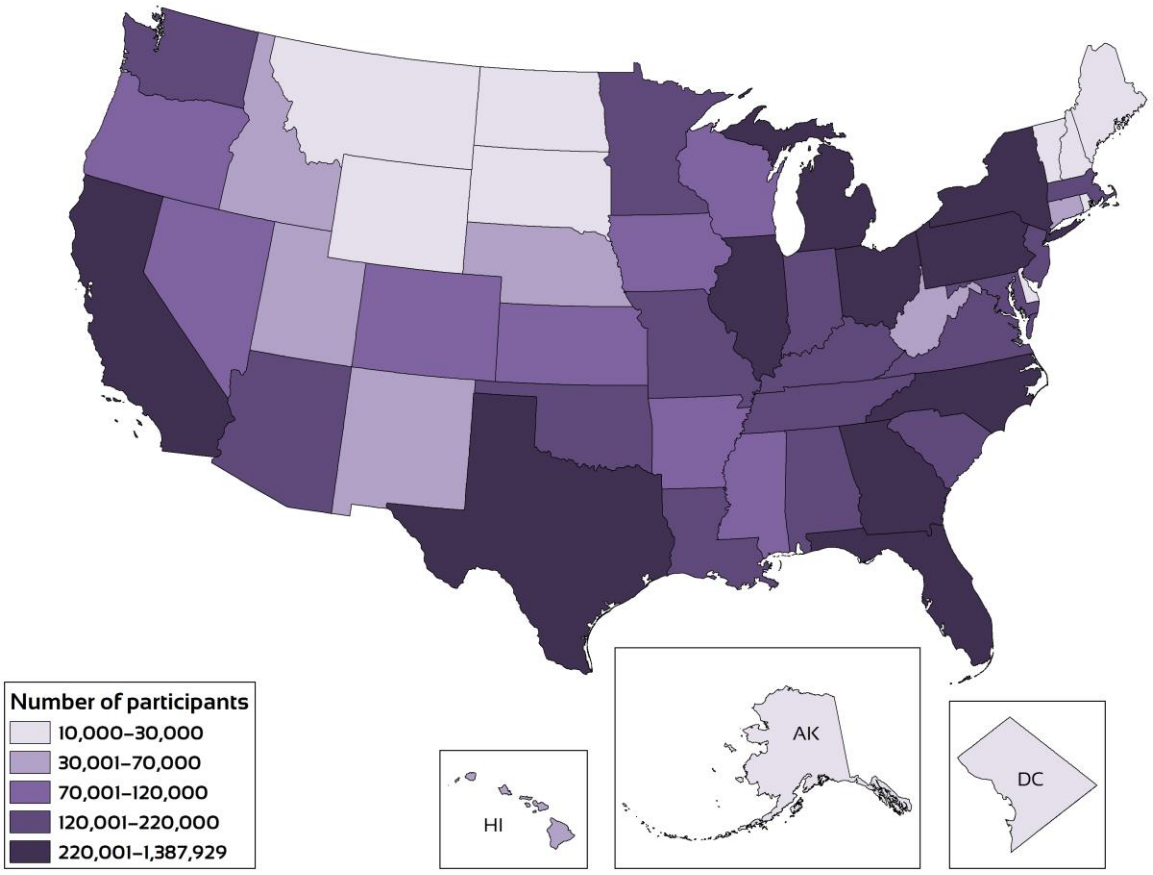
E. Report on WIC Participant and Program Characteristics 2016

For the PC2016 report, the study team asked each State agency to submit MDS data on a census of individuals who participated in WIC for the sample month of April 2016. The census included those who did not claim an FI and those who were not prescribed a food package, as was the case with certain partially breastfeeding women and fully breastfeeding infants. Therefore, participation as calculated by using PC data does not match participation as measured by FNS administrative data, which is based on the number of certified individuals who claimed their FIs from State agencies. A comparison of April 2016 FNS administrative data (7,631,683 FIs claimed) with April 2016 PC participant data (8,815,472 certified enrollees) found 86.6 percent of WIC participants claimed their monthly benefits. The percentage of WIC participants who claimed their monthly benefits in 2016 was lower than in 2014 (88.2 percent) and 2012 (91.0 percent).

All 90 State agencies submitted PC2016 data, and each agency provided the results of the census of its WIC participants. PC2016 describes the 8.8 million individuals certified as eligible to receive WIC benefits in April 2016.[30] Figure 1.1 maps WIC participation by State.

[30] Because of State agency management information system constraints, Connecticut provided data for August 16 through September 15, 2016, rather than April 2016.

Figure 1.1. Number of Participants by State



Notes
For this figure, total State participation counts include counts for ITOs and exclude counts for U.S. territories.
Total WIC participation in April 2016 was 8,815,472.

For PC2016, most State agencies provided information on each MDS item for each participant. Although overall reporting has improved substantially over time, rates at which data were unreported remained relatively high for two items: income and blood measurement. State agencies submitted income data for 91.8 percent of the approximately 8.8 million WIC participants; an additional 0.9 percent of participants reported income of zero dollars. Fourteen State agencies[31] provided income data for fewer than 70 percent of their participants. Similarly, State agencies provided blood measurement data for only 93.8 percent of women participants. WIC regulations do not require blood tests for infants younger than 9 months; moreover, for children aged 2 and older whose results were within normal ranges within the last 6 months, WIC requires blood tests only once a year. Therefore, blood measurements may be missing for a large proportion of infants and children.

Because the State agency-maintained information systems that served as the sources of data for PC2016 did not always contain complete information on every WIC participant, all tables in this report, with the exception of breastfeeding tables, include columns or rows labeled "not reported." These values

[31] Alaska, Connecticut, Kentucky, North Carolina, Tennessee, Citizen Potawatomi Nation (OK), Eastern Band of Cherokee Indians (NC), Eastern Shoshone Tribe (WY), Eight Northern Indian Pueblos Council (NM), Osage Nation (OK), Pueblo of San Felipe (NM), Santo Domingo Pueblo (NM), Standing Rock Sioux Tribe (ND), and Winnebago Tribe (NE)

indicate the numbers and percentages of participants for whom State agencies could not provide information on specific items.

PC2016 data may be unreported for a variety of reasons, some of which could indicate differences between participants with unreported data and those with reported data. For these reasons, the study team adopted a uniform strategy for preparing all tables in this report. Unreported data were included when calculating the percentage distributions for each characteristic. Although including missing data in the denominators for all calculations tended to place estimates for each characteristic at a lower bound, this approach enabled the study team to present tabulations in a consistent manner throughout the report. This approach also ensured all information needed to calculate upper bound estimates was readily available in every table. Caution should be used in comparing results across groups or over time. Missing data must always be considered in gauging differences among groups or categories of participants or in analyzing trends across years.

Eighty-four State agencies (93 percent) provided data for some or all SDS items. For PC2016, two of the largest State agencies, California and New York (accounting for 21.9 percent of participants), did not report any SDS data, which limited the completeness of SDS reporting. Table 1.2 shows the most frequently reported SDS items.

Table 1.2. Most Frequently Reported SDS Items

Data Element	Number of State Agencies That Reported Data	Percent of Participants
Prepregnancy weight	82	66.7 percent of pregnant women
Date of first WIC certification	78	60.5 percent of all participants
Birth weight	78	60.5 percent of infants and children
Weight gain during pregnancy	76	62.2 percent of breastfeeding and postpartum women
Number in household in WIC	76	50.4 percent of all participants
Total number of pregnancies	75	55.0 percent of breastfeeding and postpartum women

The limited amount and incompleteness of SDS data precluded the computation of national estimates. Appendix F of this report presents a series of tables reporting State agency-level data for those State agencies that submitted SDS information as well as a list of State agencies that supplied SDS data.

F. Organization of the Report

This report presents the results of the PC2016 data collection efforts. Chapters 2 through 7 present data on different aspects of WIC participants and the program. Chapter 2 presents information on overall WIC program participation as well as demographic data on WIC participants; appendix A provides supplemental tables. Chapter 3 describes the economic status of WIC households; appendix B provides supplemental tables. Chapter 4 provides information on the nutritional risks of WIC participants, and appendix C provides additional tables. Chapter 5 describes WIC risk priority levels. Chapter 6 provides information on breastfeeding initiation and duration; appendix D provides supplemental tables. Chapter 7 contains information on migrant WIC participants, and appendix E provides additional tables.

Appendix F presents tables of SDS data. Appendix G provides details on the methods used to collect and analyze PC data and discusses several limitations to the data.

This report references changes from the WIC PC1992–PC2014 data collections. Please see these previous WIC PC reports[32] for detailed tables that present data from these collections.

[32] Information for the WIC PC1992–PC2014 reports is provided in the reference list for this report.

Chapter 2. Overview of WIC Participation and Demographics of WIC Participants

For the purposes of this report, a WIC participant is defined as a person who was certified to receive WIC benefits in April 2016, including individuals who did not claim an FI in April. Participation data used for this study included data for fully breastfeeding infants and partially breastfeeding women, even if they were prescribed no food package, provided their breastfeeding mothers or infants were prescribed a food package.

This chapter presents data on the demographic characteristics of WIC participants. Section A discusses overall participation levels and the distribution of participants across certification categories. Sections B through E describe participant ages, the trimester of enrollment during pregnancy for pregnant women, the distribution of WIC participants by geographical region, and the race and ethnicity of WIC participants.

A. WIC Participation

Since approximately 2000, Congress has funded WIC at the level needed for the program to serve all eligible women, infants, and children. Changes in participation during this timeframe reflect changes in participant eligibility and changes in participation rates among the eligible population. In general, the number of participants increased rapidly from 1992 through 1998, grew slowly between 2000 and 2006, expanded quickly from 2008 to 2010 during the Great Recession, and has decreased since 2012 (see figure 2.1). From 2014 to 2016, WIC participation declined 5.2 percent, from 9,303,253 to 8,815,472 (see table 2.1). This decline is a continuation of a 4.4-percent decrease from 2012 to 2014 and a 2.9-percent decrease from 2010 to 2012.

A decrease in WIC participation occurred across all certification categories between 2014 and 2016 (see table 2.1). The smallest decrease (0.3 percent) was among breastfeeding women, which was the only group for which participation increased between 2012 and 2014. Participation declined the most between 2014 and 2016 for pregnant women (10.7 percent) and also fell for postpartum women (7.0 percent), infants (4.0 percent), and children (5.3 percent).

From 2014 to 2016, the percentages of women and infant participants changed slightly, but the percentage of children remained constant at 53.3 percent (see table 2.2). Among women, the proportion of breastfeeding women increased (7.4 percent in 2014 to 7.8 percent in 2016), but the proportion of postpartum women decreased slightly (6.6 percent in 2014 to 6.5 percent in 2016). In 2012, for the first time since PC data collections began, the proportion of breastfeeding women was larger than that of postpartum women, and this difference has continued to grow. Between 2014 and 2016, the proportion of pregnant women decreased from 9.6 percent to 9.1 percent; this decline continues a steady trend beginning in 1992, when 13.6 percent of WIC participants were pregnant women. Appendix table A.2.1 provides a more detailed breakdown of WIC participation by State agency.

Figure 2.1. Number of Participants: PC1992–PC2016

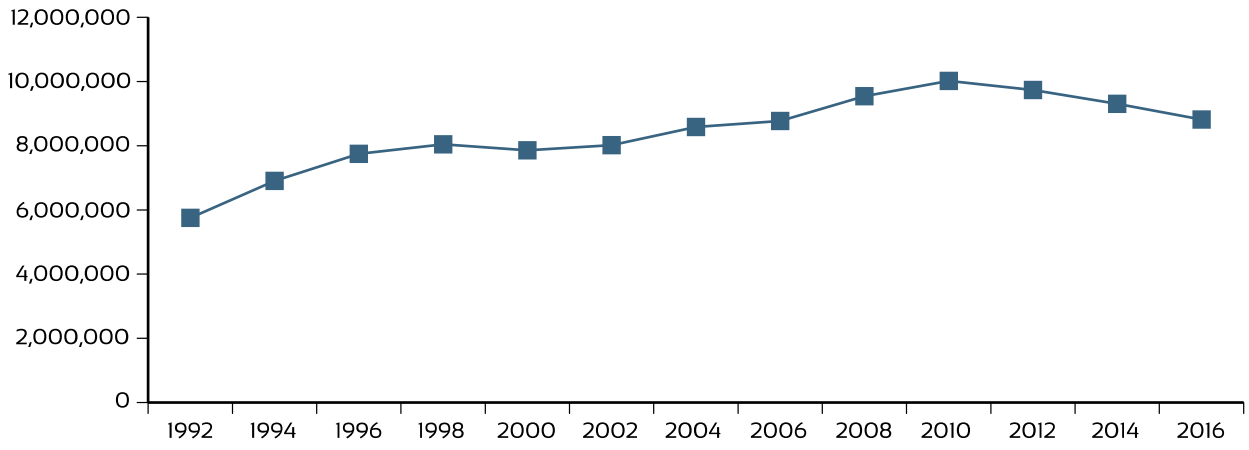


Table 2.1. Number of and Percentage Change in Participants by Participant Category: 2014 to 2016

Participant Category	Number of Participants 2014	Number of Participants 2016	Percent Change 2014–2016
Total Participants	9,303,253	8,815,472	-5.2
Women	2,199,461	2,058,429	-6.4
Pregnant women	896,551	800,665	-10.7
Breastfeeding women	687,351	685,047	-0.3
Postpartum women	615,559	572,717	-7.0
Infants	2,141,988	2,056,848	-4.0
Children	4,961,804	4,700,195	-5.3

Note
For PC2016, a WIC participant is defined as a person who was certified to receive WIC benefits in April 2016, including individuals who did not claim an FI in April. However, for FNS administrative data, participants are defined as individuals who claimed their FIs each month.

Table 2.2. Percentage of Participants by Participant Category: PC1992–PC2016

Participant Category	1992	1994	1996	1998	2000	2002[a]	2004	2006[b]	2008	2010	2012	2014	2016
Total Participants *(N)*	5,754,003	6,907,849	7,747,441	8,042,758	7,885,537	8,016,918	8,586,484	8,772,218	9,540,481	10,021,136	9,734,468	9,303,253	8,815,472
Women	22.4	23.1	22.9	23.3	24.1	24.1	24.5	25.1	25.0	23.5	23.6	23.6	23.4
Pregnant women	13.6	12.0	11.3	11.1	11.4	11.0	11.0	11.2	10.7	10.1	10.1	9.6	9.1
Breastfeeding women	3.6	4.0	4.3	4.8	5.3	5.7	6.0	6.7	6.9	6.6	6.8	7.4	7.8
Postpartum women	5.2	7.2	7.3	7.3	7.4	7.5	7.5	7.2	7.4	6.8	6.7	6.6	6.5
Infants	30.1	26.9	25.7	25.5	26.3	25.7	25.7	25.9	25.5	23.6	23.0	23.0	23.3
Children	47.5	50.2	51.4	51.2	49.6	50.1	49.8	48.9	49.5	52.9	53.4	53.3	53.3

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

For PC2016, a WIC participant is defined as a person who was certified to receive WIC benefits in April 2016, including individuals who did not claim an FI in April. However, for FNS administrative data, participants are defined as individuals who claimed their FIs each month.

[a] Four State agencies—Mississippi, Choctaw Nation (OK), Eastern Shoshone (WY), and Rosebud Sioux (SD)—were unable to provide sufficient 2002 data, so 2002 totals do not include participants from these State agencies. According to FNS administrative data, these State agencies served approximately 104,000 participants in April 2002.

[b] Guam was unable to provide sufficient 2006 data, so 2006 totals do not include participants from this State agency. According to FNS administrative data, Guam served approximately 6,000 participants in April 2006.

B. Age

Most women participating in WIC in 2016 (85.4 percent) were aged 18 to 34 (see table 2.3). The proportion of all women participants in this age range has remained relatively consistent during the past 12 years. During the past 24 years, however, age distributions have changed for women younger than 18 and older than 34. The proportion of WIC women younger than 18 decreased from 10.6 percent in 1992 to 2.9 percent in 2016. Conversely, the proportion of WIC women aged 35 and older rose from 5.2 percent in 1992 to 11.7 percent in 2016. Within this age group, women participants were most likely to be breastfeeding (14.2 percent), followed by pregnant and postpartum (10.8 percent and 9.9 percent, respectively).

Most infants (90.8 percent) were aged 0 to 3 months at the time of certification, a percentage that decreased slightly since 2014, when 91.4 percent of infants were aged 0 to 3 months when certified. In 2016, 37.2 percent of children were 1 year old at the time of certification, 25.9 percent were 2 years old, 22.9 percent were 3 years old, and 14.0 percent were 4 years old. The age distributions of 2- and 3-year-old children at certification have remained fairly stable since 2012. However, the proportions of 1- and 4-year-old children have increased by 2.4 percentage points and decreased by 2.5 percentage points, respectively, since 2012.

Table 2.3. Percentage of Participants by Participant Category and Age at Certification: 2012, 2014, 2016

Participant Category and Age at Certification	2012	2014	2016
Total Participants *(N)*	9,734,468	9,303,523	8,815,472
Total Women *(N)*	2,300,065	2,199,461	2,058,429
Younger than 15	0.2	0.1	0.1
15–17	4.2	3.3	2.8
18–34	85.9	85.9	85.4
35 or older	9.7	10.5	11.7
Age not reported	0.1	0.1	0.0
Pregnant Women (N)	983,192	896,551	800,665
Younger than 15	0.3	0.2	0.2
15–17	5.0	4.1	3.5
18–34	86.0	86.0	85.5
35 or older	8.6	9.6	10.8
Age not reported	0.1	0.2	0.0
Breastfeeding Women (N)	665,526	687,351	685,047
Younger than 15	0.1	0.1	0.1
15–17	2.5	2.1	1.7
18–34	84.5	84.4	84.0
35 or older	12.9	13.4	14.2
Age not reported	0.0	0.1	0.0
Postpartum Women (N)	651,347	615,559	572,717
Younger than 15	0.2	0.1	0.1
15–17	4.6	3.6	3.1
18–34	87.1	87.3	86.8
35 or older	8.0	8.8	9.9
Age not reported	0.1	0.1	0.0
Infants[a] *(N)*	2,240,045	2,141,988	2,056,848
0–3 months	92.5	91.4	90.8
4–5 months	2.6	2.9	3.1
6–8 months	3.6	4.0	4.3
9–11 months	1.3	1.6	1.8
Age not reported	0.1	0.1	0.0

Participant Category and Age at Certification	2012	2014	2016
Children[b] *(N)*	5,194,358	4,961,804	4,700,195
1 year	34.8	36.7	37.2
2 years	25.3	25.9	25.9
3 years	23.3	23.1	22.9
4 years	16.5	14.2	14.0
Age not reported	0.0	0.1	0.0

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

[a] WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday). For infants, the age at certification generally represents the age of initial receipt of WIC benefits because WIC does not require an infant to be recertified until the first birthday.

[b] In 2016, about 2.1 percent of participants who were classified as 1-year-old children were in fact 11-month-old infants who were reclassified as children without being formally recertified; similarly, about 0.1 percent of WIC participants who were classified as infants were at least 366 days old. In 2014, these values were 2.5 percent and less than 0.1 percent, respectively; in 2012, they were 2.0 percent and 0.1 percent, respectively. Because children can be certified annually for up to 4 years, the distribution of children's age at last certification corresponds closely to the distribution of current age.

C. Trimester of Enrollment

In 2016, more than half of pregnant women participants (53.8 percent) enrolled in WIC during the first trimester of pregnancy, and most of the remainder (36.6 percent) enrolled during the second trimester (see table 2.4). Only 9.4 percent enrolled during the third trimester. The proportion of pregnant women who enrolled during the first trimester decreased from 54.5 percent in 2014 to 53.8 percent in 2016. This is a continuation of the decline seen between 2012 and 2014, when the rate of women enrolling during the first trimester decreased by 2.4 percentage points.

Table 2.4. Distribution of Pregnant Women Participants by Trimester of Enrollment: 2012, 2014, 2016

Trimester of Enrollment	2012		2014		2016	
	Number	%	Number	%	Number	%
Total Pregnant Women	983,192	100.0	896,551	100.0	800,665	100.0
First trimester	559,432	56.9	488,299	54.5	430,934	53.8
Second trimester	341,076	34.7	323,034	36.0	292,891	36.6
Third trimester	77,036	7.8	82,338	9.2	75,592	9.4
Trimester not reported	5,646	0.6	2,878	0.3	1,248	0.2

Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

D. Region

WIC participation varied considerably across the seven WIC regions. The Western Region had the most participants (2,052,201, or 23.3 percent of all participants), and the Mountain Plains Region had the fewest (567,421, or 6.4 percent of all participants; see table 2.5). Since 2014, participation has declined across all regions, which is consistent with the overall drop in participation during that time.

Table 2.5. Distribution of Participants by Region: 2012, 2014, 2016

Region	2012		2014		2016	
	Number	%	Number	%	Number	%
Total Participants	9,734,468	100.0	9,303,253	100.0	8,815,472	100.0
Northeast	874,064	9.0	845,658	9.1	800,750	9.1
Mid-Atlantic	1,068,189	11.0	1,016,483	10.9	979,621	11.1
Southeast	1,900,047	19.5	1,850,588	19.9	1,818,449	20.6
Midwest	1,340,267	13.8	1,272,077	13.7	1,183,748	13.4
Southwest	1,499,957	15.4	1,495,666	16.1	1,413,282	16.0
Mountain Plains	637,688	6.6	582,285	6.3	567,421	6.4
Western	2,414,256	24.8	2,240,496	24.1	2,052,201	23.3

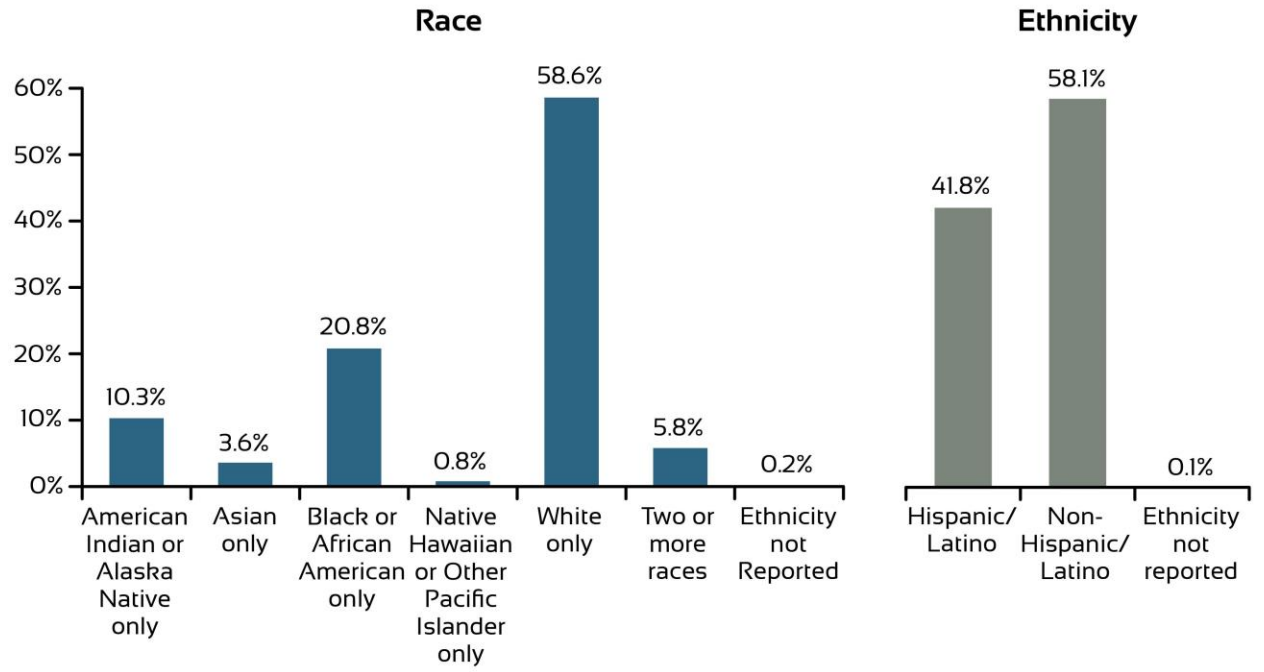
Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

E. Race and Ethnicity

WIC participants are asked to report both ethnicity and race; if a participant does not report race or ethnicity, WIC staff must record the information on behalf of the participant. Race indicates the individual's racial category or categories. Ethnicity indicates whether the individual is Hispanic/Latino. The five racial categories are (1) American Indian or Alaska Native; (2) Asian; (3) Black or African American; (4) Native Hawaiian or Other Pacific Islander; and (5) White. These categories are based on Office of Management and Budget reporting requirements for race and ethnicity (OMB; 1997). The PC2006 report was the first PC report to use these categories.

In 2016, only one race was reported for most WIC participants. According to racial data reported by State agencies, 58.6 percent of all WIC participants were White only, 20.8 percent were Black or African American only, 10.3 percent were American Indian or Alaska Native only, and 4.4 percent were either Asian only or Native Hawaiian or Other Pacific Islander only (see figure 2.2 and table 2.6). Two or more races were reported for 5.8 percent of WIC participants. Appendix table A.2.6 provides a detailed breakdown of participants for whom two or more races were reported. Hispanic/Latino ethnicity was reported for 41.8 percent of participants.

Figure 2.2. Percentage of Participants by Race and Ethnicity



Note
Percentages may not add to 100.0 because of rounding.

Race and ethnicity reporting stayed relatively consistent from 2014 to 2016 (see table 2.7). Race distribution changes ranged from a decrease of 0.8 percentage points for American Indian or Alaska Native only to an increase of 0.5 percentage points for Black or African American only. The proportion of participants reported as being of Hispanic/Latino ethnicity increased slightly, by 0.2 percentage points.

The proportion of participants for whom a race of American Indian or Alaska Native only was reported increased substantially in 2006 following the implementation of OMB's new guidelines for reporting

race and ethnicity (OMB, 1997). In 2004, just 1.6 percent of WIC participants were identified as American Indian or Alaska Native. In 2006, the percentage of American Indian or Alaska Native-only participants soared to 15.3 percent of all WIC participants. The proportion of participants recorded as American Indian or Alaska Native only, which has fluctuated since 2006, was 10.3 in 2016.

Revisions to the racial categories defined by OMB appear to have contributed to the increase in the percentage of participants classified as American Indian or Alaska Native.[33] Prior to 2006, the guidelines for reporting race and ethnicity specified one variable with five possible values: (1) American Indian or Alaska Native, (2) Asian or Pacific Islander, (3) Black, (4) Hispanic, and (5) White. Designating multiple races was not allowed. For PC2006, the guidelines for reporting race were revised. The new guidelines require WIC participants who identify as Hispanic/Latino to also indicate race, choosing from (1) American Indian or Alaska Native; (2) Asian; (3) Black or African American; (4) Native Hawaiian or Other Pacific Islander; and (5) White. Participants may report multiple races. If the recipient does not designate a race, WIC staff must do so based on observation. Some Hispanic/Latino participants and WIC staff may view American Indian or Alaska Native as the most appropriate racial classification for Hispanic/Latino participants when race must be designated based on observation, and they may select that race category in the absence of another preference by the participant. Overall, 21.9 percent of Hispanic/Latino WIC participants were also reported to be American Indian or Alaska Native only (see table 2.8); the percentage of participants with this specific combination of racial and ethnic designations varied widely across State agencies. Table 2.10 shows variations in race and ethnicity reporting across FNS regions. The percentage of participants identified as American Indian or Alaska Native varied considerably among regions, from a low of 0.7 percent in the Southeast to a high of 27.9 percent in the Western region.

In general, the racial/ethnic composition within certification categories was similar to the overall racial/ethnic distribution of all participants (see table 2.9), with few notable exceptions. Breastfeeding women were disproportionately Hispanic/Latino (45.2 percent of breastfeeding women were Hispanic/Latino, whereas 39.1 percent of all WIC women were Hispanic/Latino), and postpartum women were disproportionately non-Hispanic/Latino (68.4 percent of postpartum women were non-Hispanic/Latino, whereas 60.8 percent of all WIC women were non-Hispanic/Latino). Of WIC recipients, a larger proportion of children than women and infants were Hispanic/Latino (44.3 percent compared with 39.1 percent and 38.8 percent, respectively). Appendix table A.2.9 shows a more detailed breakdown of race and ethnicity by certification category, providing counts rather than percentages.

[33] The OMB reporting guidelines define an American Indian or Alaska Native as a person who has origins in any of the original peoples of North and South America (including Central America) and who maintains Tribal affiliation or community attachment.

Table 2.6. Percentage of Participants (2016) and the U.S. Population (2015) by Race and Ethnicity

Characteristics	Participants	U.S. Population[a]
Race		
American Indian or Alaska Native only	10.3	0.8
Asian only	3.6	5.1
Black or African American only	20.8	12.6
Native Hawaiian or Other Pacific Islander only	0.8	0.2
White only	58.6	73.6
Some other race	N/A	4.7
Two or more races	5.8	3.0
Race not reported	0.2	N/A
Ethnicity		
Hispanic/Latino	41.8	17.1
Non-Hispanic/Latino	58.1	82.9
Ethnicity not reported	0.1	N/A

Notes
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.
N/A = not applicable
[a] Source: U.S. Census Bureau, n.d.

Table 2.7. Percentage of Women, Infant, and Child Participants by Race and Ethnicity: 2014, 2016

Characteristics	Total Women		Infants		Children		Total Participants	
	2014	2016	2014	2016	2014	2016	2014	2016
Total Participants *(N)*	2,199,461	2,058,429	2,141,988	2,056,848	4,961,804	4,700,195	9,303,253	8,815,472
Race	–	–	–	–	–	–	–	–
American Indian or Alaska Native only	10.4	9.9	9.0	8.3	12.3	11.4	11.1	10.3
Asian only	3.6	3.8	3.1	3.3	3.3	3.6	3.3	3.6
Black or African American only	20.5	21.0	22.4	22.7	19.4	19.8	20.3	20.8
Native Hawaiian or Other Pacific Islander only	0.9	0.8	0.8	0.7	0.8	0.8	0.8	0.8
White only	61.4	61.2	58.2	58.2	57.8	57.7	58.7	58.6
Two or more races	3.0	3.1	6.1	6.5	6.3	6.6	5.4	5.8
Race not reported	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Ethnicity	–	–	–	–	–	–	–	–
Hispanic/Latino	38.2	39.1	38.0	38.8	44.7	44.3	41.6	41.8
Non-Hispanic/Latino	61.8	60.8	62.0	61.1	55.2	55.7	58.3	58.1
Ethnicity not reported	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Table 2.8. Percentage of Participants by Race and Ethnicity

Race	Hispanic/Latino	Non-Hispanic/ Latino	Ethnicity Not Reported
Total Participants *(N)*	3,685,729	5,125,133	4,610
American Indian or Alaska Native only	21.9	2.0	0.0
Asian only	0.4	5.9	0.0
Black or African American only	2.9	33.6	0.4
Native Hawaiian or Other Pacific Islander only	0.6	0.9	< 0.1
White only	69.1	51.2	0.3
Two or more races	5.0	6.3	0.1
Race not reported	0.2	0.1	99.2
Total	100.0	100.0	100.0

Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Table 2.9. Percentage of Participants in Participant Category by Race and Ethnicity

Characteristics	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants	Children	Total Participants
Total Participants *(N)*	800,665	685,047	572,717	2,058,429	2,056,848	4,700,195	8,815,472
Race	–	–	–	–	–	–	–
American Indian or Alaska Native only	10.5	10.6	8.1	9.9	8.3	11.4	10.3
Asian only	3.6	4.6	3.0	3.8	3.3	3.6	3.6
Black or African American only	20.2	18.2	25.5	21.0	22.7	19.8	20.8
Native Hawaiian or Other Pacific Islander only	0.8	0.9	0.8	0.8	0.7	0.8	0.8
White only	61.6	62.2	59.4	61.2	58.2	57.7	58.6
Two or more races	3.1	3.2	3.0	3.1	6.5	6.6	5.8
Race not reported	0.2	0.2	0.2	0.2	0.2	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Ethnicity	–	–	–	–	–	–	–
Hispanic/Latino	39.4	45.2	31.5	39.1	38.8	44.3	41.8
Non-Hispanic/Latino	60.6	54.8	68.4	60.8	61.1	55.7	58.1
Ethnicity not reported	< 0.1	< 0.1	0.1	0.1	0.1	< 0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Table 2.10. Percentage of Participants in Region by Race and Ethnicity

Characteristics	Northeast	Mid-Atlantic	Southeast	Midwest	Southwest	Mountain Plains	Western	Total Participants	
								Number	Percent
Total Participants *(N)*	800,750	979,621	1,818,449	1,183,748	1,413,282	567,421	2,052,201	8,815,472	100.0
Race	–	–	–	–	–	–	–	–	–
American Indian or Alaska Native only	9.2	15.1	0.7	1.0	2.6	8.7	27.9	906,698	10.3
Asian only	8.6	2.6	1.5	3.8	1.7	2.4	5.5	317,604	3.6
Black or African American only	23.6	25.9	34.9	24.8	17.9	11.7	6.8	1,829,374	20.8
Native Hawaiian or Other Pacific Islander only	1.3	0.9	0.2	0.1	0.3	0.7	1.8	69,882	0.8
White only	53.3	51.2	58.0	63.6	73.0	70.4	48.8	5,168,190	58.6
Two or more races	3.8	4.1	4.3	6.5	4.2	6.0	9.2	508,750	5.8
Race not reported	0.3	0.2	0.3	0.3	0.2	0.1	< 0.1	14,974	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
Ethnicity	–	–	–	–	–	–	–	–	–
Hispanic/Latino	37.3	41.3	25.5	20.2	56.9	27.6	64.3	3,685,729	41.8
Non-Hispanic/Latino	62.7	58.7	74.4	79.6	43.1	72.4	35.7	5,125,133	58.1
Ethnicity not reported	< 0.1	< 0.1	< 0.1	0.2	0.1	< 0.1	< 0.1	4,610	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	–	100.0

Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Chapter 3. Income of WIC Participants

In 2016, the Nation saw sustained improvement in many areas of the economy as the country recovered from the longest and deepest economic downturn the U.S. economy has experienced since the Great Depression. The seasonally adjusted unemployment rate improved through 2015 and in the first 4 months of 2016, dropping from 5.7 percent in January 2015 to 5.0 percent in April 2016 (U.S. Department of Labor [DOL], Bureau of Labor Statistics [BLS], n.d.). The rate in the first 4 months of 2016 was only marginally higher than that for 2007, the last year before the onset of the recession (DOL BLS, n.d.). These changes in the economy are reflected in gradually increasing average income among WIC participants.

Federal regulations require categorically eligible WIC applicants to meet income eligibility standards set by State agencies. These agencies must set income restrictions of between 100 and 185 percent of the Federal Poverty Guidelines established by HHS. These income guidelines for poverty are based on household size and vary by residency (HHS, 2016).[34] As of April 2016, the income eligibility threshold set by all State agencies was 185 percent of the Federal Poverty Guidelines. In 2016, in most areas served by WIC, a person from a household of four with an annual household income of $44,863 or less was eligible for WIC (USDA FNS, 2015).

Under WIC regulations, applicants are adjunctively income-eligible for WIC benefits if they or certain family members can document participation in at least one of three means-tested benefit programs: TANF, SNAP, and Medicaid.[35] Applicants are automatically income-eligible if they can document participation in other means-tested programs that apply income eligibility guidelines consistent with State agency regulations on WIC income.[36] All State agencies except American Samoa, Puerto Rico, and the Northern Mariana Islands use TANF, SNAP, and Medicaid participation to determine adjunctive WIC income eligibility.[37] Adjunctively and automatically income-eligible applicants may have income that exceeds 185 percent of the Federal Poverty Guidelines.

This chapter presents data on the income of WIC participants and related measures. Section A describes the participation of WIC participants in other benefit programs. Section B discusses household size and income. Section C describes the poverty status of WIC participant households.

A. Participation in Other Benefit Programs

In April 2016, 74.9 percent of WIC participants reported receiving benefits from TANF, SNAP, or Medicaid; 30.7 percent of WIC participants reported participation in multiple programs (see table 3.1). Relatively few WIC participants reported enrollment in TANF (6.5 percent), a third (33.2 percent) indicated participation in SNAP, and nearly three-quarters (71.0 percent) reported participation in Medicaid. These statistics likely underestimate participation in these programs for several reasons. For

[34] The Federal Poverty Guidelines are higher for Alaska and Hawaii than for all other State agencies.
[18] Because Medicaid permits recipients to have income equal to or greater than 185 percent of the Federal Poverty Guidelines, it is possible some WIC participant household incomes exceed this threshold.
[36] Although WIC regulations distinguish means-tested programs used for adjunctive income eligibility from programs used to establish automatic income eligibility, the two mechanisms work similarly with respect to income eligibility.
[37] American Samoa, Puerto Rico, and the Northern Mariana Islands do not participate in SNAP, but participants in their respective nutrition assistance programs are automatically income-eligible for WIC. Medicaid recipients in American Samoa and the Northern Mariana Islands, and TANF and Medicaid recipients in Puerto Rico, are adjunctively income-eligible for WIC.

instance, many local agencies refer WIC participants to these and other social service and/or healthcare programs; as a result, enrollment in other programs subsequent to WIC certification may not be captured in the estimates presented here. Moreover, some State agencies' eligibility systems require staff to document enrollment in only one other qualifying benefit program to establish adjunctive income eligibility, so staff may not have collected data on participation in additional benefit programs. Data on participation in benefit programs other than WIC were missing for 6.1 percent of WIC participants.

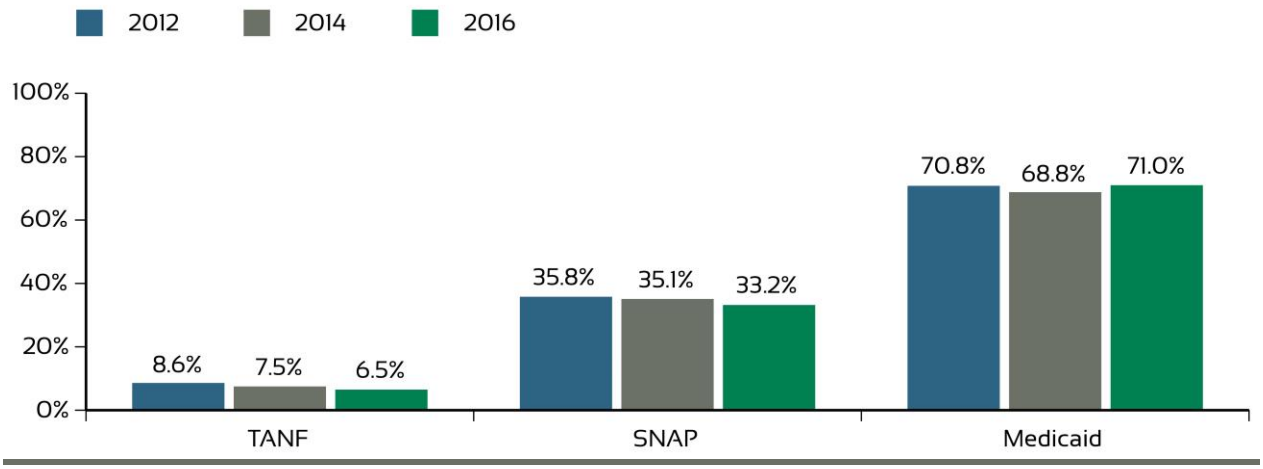
Participation in SNAP and TANF decreased between 2014 and 2016 as well as between 2012 and 2014 (see figure 3.1). Between 2014 and 2016, SNAP participation dropped by 1.9 percentage points, and TANF participation decreased by 1.0 percentage point. These decreases are consistent with a steadily improving economy between 2014 and 2016. In contrast, Medicaid participation increased by 2.2 percentage points. Several State agencies reported that increases in Medicaid enrollment stemmed from the implementation of Medicaid expansions under The Patient Protection and Affordable Care Act of 2010 (Pub. L. 111–148). Overall, participation in at least one of these three benefit programs increased by 2.1 percentage points, from 72.8 percent in 2014 to 74.9 percent in 2016.

Table 3.1. Distribution of Participants by Reported Participation in Other Benefit Programs

Program Participation	Number	Percent
Total Participants	8,815,472	100.0
Participants With Reported Participation in Other Benefit Programs by Program		
TANF	574,495	6.5
SNAP	2,925,366	33.2
Medicaid	6,257,465	71.0
Participation in any other benefit program	6,602,064	74.9
Participants With Reported Participation in Other Benefit Programs by Combination of Programs		
TANF, SNAP, and Medicaid	450,911	5.1
TANF and SNAP	26,253	0.3
TANF and Medicaid	53,214	0.6
SNAP and Medicaid	2,173,973	24.7
TANF only	44,117	0.5
SNAP only	274,229	3.1
Medicaid only	3,579,367	40.6
No participation in another benefit program	1,651,872	18.7
Not reported	561,536	6.4

Notes
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.
Illinois was unable to provide sufficient PC2016 data on participation in TANF. Alaska was unable to provide sufficient PC2016 data on participation in TANF, SNAP, and Medicaid.
The numbers and percentages in this table do not include participants for whom State agencies did not report information on participation in one or more benefit programs other than WIC. Any participants for whom State agencies reported only partial participation information are listed as "not reported."
Members of most ITOs can participate in the Food Distribution Program on Indian Reservations (FDPIR) as an alternative to SNAP. For PC2016, the SDS data collected included data on FDPIR participation. Almost all (33 of 34) ITOs chose to report FDPIR participation, resulting in data for 85.6 percent of all ITO WIC participants. Of the 55,406 ITO WIC participants who provided data on FDPIR participation, only 0.7 percent participated in the program.

Figure 3.1. Percentage of Participants by Reported Participation in Other Benefit Programs: 2012, 2014, 2016



Notes
Alaska was unable to provide sufficient PC2014 data on participation in TANF, SNAP, and Medicaid.
Illinois was unable to provide sufficient PC2016 data on participation in TANF. Alaska was unable to provide sufficient PC2016 data on participation in TANF, SNAP, and Medicaid.
This figure does not include information on participants with missing PC2016 data on participation in benefit programs other than WIC. To include those participants would increase the estimated 2016 participation to 6.6 percent for TANF, 35.6 for SNAP, and 74.0 percent for Medicaid.

B. Household Size and Income

State agencies were asked to provide information on household or economic unit size and income for WIC participants during April 2016.[38] As in previous years, household size was reported for 99.6 percent of participants (see tables 3.2a and 3.2b). Income data were missing for 8.3 percent of households (see table 3.3), which is similar to previous levels. Fourteen State agencies[39] were missing income data for at least 30 percent of their participants in 2016. Respondents who report zero income are also generally adjunctively eligible for WIC; in 2016, 90.2 percent of participants who reported zero income also reported participation in at least one benefit program that conveys adjunctive eligibility (i.e., TANF, SNAP, or Medicaid).[40]

For some participants, State agencies reported "actual" income amounts—that is, the dollar amounts reported by WIC applicants. For many participants who were adjunctively income-eligible, State agencies reported income ranges rather than specific dollar amounts. For analytic purposes, the midpoints of the ranges were assigned as household income.[41] Both types of data were combined to compute the average annualized income and poverty status of participants.

[38] The term "household or economic unit" refers to the group of people whose incomes are evaluated for WIC eligibility purposes.
[39] Alaska, Connecticut, Kentucky, North Carolina, Tennessee, Citizen Potawatomi Nation (OK), Eastern Band of Cherokee Indians (NC), Eastern Shoshone Tribe (WY), Eight Northern Indian Pueblos Council (NM), Osage Nation (OK), Pueblo of San Felipe (NM), Santo Domingo Pueblo (NM), Standing Rock Sioux Tribe (ND), and Winnebago Tribe (NE)
[40] Adjunctive eligibility statistics from special tabulations are not presented in this report.
[41] State agencies reported income ranges in increments of $100 per month. The highest income category was $6,200 or more per month, and the top code within that category was $6,417.

Many State agencies reported income values of zero for some participants. However, State agencies varied in how they used values of zero. Some State agencies reported using a zero value to indicate an actual income of zero dollars, whereas others reported using zero values as placeholders in cases of missing or unknown income values or in cases of adjunctive eligibility (i.e., if a participant was adjunctively eligible, the State agency did not collect an income value from the participant). Consistent with the approach used for previous PC data collections, income data for participants who reported both zero income and participation in another benefit program were deleted during the data cleaning process. Other State agencies had very low or no zero-income reporting; these agencies may have restricted the ability of their staff to enter a value of zero for income when certifying applicants. Although this analysis included available income data from all State agencies, zero and missing incomes were tabulated separately because of the uncertainty in interpreting them.

Table 3.2b shows the mean family or economic unit size for WIC participants has remained at about four persons since 2012. In 2016, 1.4 percent of infants, 1.6 percent of children, and 1.7 percent of women were classified as residing in one-person households for the purposes of WIC income eligibility determination—similar to the percentages for 2012 and 2014. Women who miscarried, mothers of infants placed in foster care, and infants and children placed in foster care may be reported as one-person economic units.

Tables 3.3, 3.4, and 3.5 present mean and median incomes by participant category, race, and ethnicity, respectively. Table 3.3 shows average family or economic unit income across all participant categories was $18,626 in April 2016, which constitutes an increase of $1,254 (7.2 percent) since 2014. Broader economic data indicated an inflation rate of 0.9 percent between April 2014 and April 2016—a significantly smaller increase than in the mean income of WIC participants (DOL BLS, 2016). Among certification categories, breastfeeding women reported the highest mean annualized income ($19,783), and postpartum women reported the lowest ($16,248).

The median income in 2016 was $16,704 for the WIC population overall. Consistent with the average income, the median income increased 7.4 percent from 2014. Breastfeeding women reported the highest median income ($18,192), and postpartum women reported the lowest ($14,340).

By racial category, average income was highest for Asian participants ($22,433) and lowest for Black or African American participants ($14,309; see table 3.4), continuing trends from previous years. Average annualized income has increased among all race categories since 2014. A higher average income was reported for Hispanic/Latino participants ($19,175) than for non-Hispanic/Latino participants ($18,212) in 2016 (see table 3.5), consistent with previous years.

Table 3.2a. Percentage of Women Participants by Size of Family or Economic Unit: 2012, 2014, 2016

Size of Family or Economic Unit	Pregnant Women			Breastfeeding Women			Postpartum Women			Total Women		
	2012	2014	2016	2012	2014	2016	2012	2014	2016	2012	2014	2016
Total Participants *(N)*	983,192	896,551	800,665	665,526	687,351	685,047	651,347	615,559	572,717	2,300,065	2,199,461	2,058,429
1[a]	2.9	3.7	4.0	0.0	0.0	0.0	0.6	0.6	0.7	1.4	1.7	1.7
2	18.9	18.7	18.2	10.5	10.6	10.7	15.2	14.5	14.2	15.4	15.0	14.6
3	27.2	26.8	26.2	27.5	27.7	27.4	29.0	29.1	28.7	27.8	27.7	27.3
4	23.8	23.3	23.2	26.8	26.5	26.6	25.3	25.8	25.8	25.1	25.0	25.1
5	14.4	14.4	14.8	18.3	18.2	18.1	15.3	16.0	16.1	15.8	16.0	16.2
6+	12.3	12.5	13.1	16.4	16.4	16.4	12.6	13.4	13.7	13.6	14.0	14.3
Not reported	0.2	0.2	0.2	0.3	0.4	0.6	1.6	0.4	0.5	0.6	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	3.7	3.7	3.8	4.2	4.2	4.2	3.9	3.9	3.9	3.9	3.9	3.9

Note

[a] Women who miscarried, mothers of infants placed in foster care, and infants and children placed in foster care may be reported as one-person economic units.

Table 3.2b. Distribution of Infant and Child Participants by Size of Family or Economic Unit: 2012, 2014, 2016

Size of Family or Economic Unit	Infants			Children			Total Participants		
	2012	2014	2016	2012	2014	2016	2012	2014	2016
Total Participants *(N)*	2,240,045	2,141,988	2,056,848	5,194,358	4,961,804	4,700,195	9,734,468	9,303,253	8,815,472
1[a]	1.0	1.2	1.4	1.1	1.4	1.6	1.2	1.4	1.6
2	13.1	12.6	12.1	9.6	9.5	9.1	11.8	11.5	11.1
3	28.3	28.1	27.6	21.9	22.0	21.8	24.8	24.7	24.4
4	26.1	26.0	26.1	28.8	28.7	28.4	27.3	27.2	27.1
5	16.6	16.8	17.0	20.0	20.2	20.3	18.2	18.4	18.6
6+	14.2	14.6	14.9	17.1	17.8	18.3	15.6	16.2	16.6
Not reported	0.4	0.3	0.5	1.2	0.1	0.2	0.9	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	4.0	4.0	4.0	4.2	4.2	4.3	4.1	4.1	4.1

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Results presented in this table are based on the size of the family or economic unit as reported by the participant. The "not reported" category includes units for which zero members were reported.

[a] Women who miscarried, mothers of infants placed in foster care, and infants and children placed in foster care may be reported as one-person economic units.

Table 3.3. Distribution of Participants in Participant Category by Annualized Family or Economic Unit Income

Income	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants	Children	Total Participants
Total Participants *(N)*	800,665	685,047	572,717	2,058,429	2,056,848	4,700,195	8,815,472
Average (mean) income	$18,152	$19,783	$16,248	$18,179	$17,675	$19,228	$18,626
Median income	$16,302	$18,192	$14,340	$16,224	$15,600	$17,160	$16,704
Percent with income reported	91.9	91.8	89.4	91.2	89.2	91.3	90.8
Percent with income reported as zero[a]	0.7	0.8	0.8	0.8	1.6	0.6	0.9
Percent with income not reported[b]	7.4	7.4	9.8	8.0	9.3	8.1	8.3

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

State and local agencies may collect data on weekly, biweekly, monthly, or annual incomes. For reporting and analysis, annualized incomes were computed.

Income calculations included only those participants for whom State agencies reported data on income, income period, and size of economic unit.

In 2016, a State agency could report actual income or an income range for participants. Calculations of mean and median incomes included both types of data.

[a] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the percentage of participants for whom data were not reported on income, income period, or size of economic unit.

Table 3.4. Distribution of Participants in Participant Category by Race and Annualized Family or Economic Unit Income

Race	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants	Children	Total Participants
American Indian or Alaska Native Only *(n)*	83,909	72,623	46,473	203,005	170,130	533,563	906,698
Average (mean) income	$19,034	$19,948	$17,342	$18,983	$18,301	$19,442	$19,126
Median income	$18,000	$18,204	$15,600	$17,880	$16,800	$18,000	$17,800
Percent with income reported	92.9	94.3	92.0	93.2	92.1	92.6	92.6
Percent with income reported as zero[a]	0.8	0.7	0.8	0.8	1.4	1.1	1.1
Percent with income not reported[b]	6.3	5.0	7.2	6.0	6.5	6.3	6.3
Asian Only *(n)*	29,203	31,751	17,411	78,365	68,222	171,017	317,604
Average (mean) income	$21,605	$22,002	$21,476	$21,736	$21,494	$23,124	$22,433
Median income	$20,160	$20,796	$19,858	$20,400	$19,994	$21,324	$20,800
Percent with income reported	95.9	94.7	94.9	95.2	94.2	95.1	95.0
Percent with income reported as zero[a]	0.6	0.9	0.7	0.7	1.0	0.5	0.7
Percent with income not reported[b]	3.5	4.4	4.4	4.1	4.8	4.4	4.4
Black or African American Only *(n)*	161,859	124,781	145,854	432,494	467,517	929,363	1,829,374
Average (mean) income	$14,427	$16,047	$12,080	$14,108	$13,369	$14,861	$14,309
Median income	$12,000	$13,936	$9,000	$11,436	$10,212	$12,000	$11,652
Percent with income reported	90.4	88.1	87.8	88.8	87.0	89.7	88.8
Percent with income reported as zero[a]	0.7	0.8	0.6	0.7	2.1	0.6	1.0
Percent with income not reported[b]	9.0	11.2	11.6	10.5	10.9	9.7	10.2

Race	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants	Children	Total Participants
Native Hawaiian or Other Pacific Islander Only *(n)*	6,217	6,384	4,430	17,031	15,260	37,591	69,882
Average (mean) income	$19,011	$20,312	$18,251	$19,303	$19,101	$19,646	$19,445
Median income	$17,316	$18,200	$16,200	$17,628	$17,280	$17,602	$17,520
Percent with income reported	95.3	94.7	93.6	94.6	92.9	94.7	94.3
Percent with income reported as zero[a]	0.6	0.9	0.9	0.8	1.4	0.6	0.8
Percent with income not reported[b]	4.1	4.4	5.5	4.6	5.6	4.7	4.9
White Only *(n)*	492,947	426,158	340,106	1,259,211	1,196,174	2,712,805	5,168,190
Average (mean) income	$18,990	$20,625	$17,557	$19,170	$19,045	$20,417	$19,799
Median income	$17,256	$18,912	$15,600	$17,628	$17,352	$18,200	$18,000
Percent with income reported	92.0	92.3	89.5	91.4	89.4	91.2	90.9
Percent with income reported as zero[a]	0.7	0.9	0.8	0.8	1.4	0.5	0.8
Percent with income not reported[b]	7.3	6.9	9.7	7.8	9.2	8.2	8.3
Two or More Races *(n)*	25,186	22,184	17,290	64,660	134,580	309,510	508,750
Average (mean) income	$17,925	$19,726	$15,890	$18,009	$17,068	$19,053	$18,407
Median income	$15,600	$18,000	$13,092	$15,600	$14,400	$16,536	$15,600
Percent with income reported	93.4	93.8	92.0	93.2	89.9	92.9	92.1
Percent with income reported as zero[a]	0.8	0.7	0.8	0.8	1.7	0.6	0.9
Percent with income not reported[b]	5.8	5.5	7.1	6.1	8.4	6.5	7.0

Race	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants	Children	Total Participants
Race Not Reported *(n)*	1,344	1,166	1,153	3,663	4,965	6,346	14,974
Average (mean) income	$17,699	$18,232	$15,722	$17,337	$15,197	$17,515	$16,824
Median income	$16,200	$15,372	$12,000	$15,080	$10,596	$15,000	$14,560
Percent with income reported	52.2	38.0	34.9	42.2	30.3	37.6	36.3
Percent with income reported as zero[a]	1.3	1.2	1.2	1.2	2.0	1.6	1.6
Percent with income not reported[b]	46.6	60.8	63.9	56.6	67.8	60.8	62.1

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

State and local agencies may collect data on weekly, biweekly, monthly, or annual incomes. For reporting and analysis, annualized incomes were computed.

Income calculations included only those participants for whom State agencies reported data on income, income period, and size of economic unit.

In 2016, a State agency could report actual income or an income range for participants. Calculations of mean and median incomes included both types of data.

[a] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the percentage of participants for whom data were not reported on income, income period, or size of economic unit.

Table 3.5. Distribution of Participants in Participant Category by Ethnicity and Annualized Family or Economic Unit Income

Ethnicity	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants	Children	Total Participants
Hispanic/Latino *(n)*	315,101	309,580	180,490	805,171	798,694	2,081,864	3,685,729
Average (mean) income	$19,087	$19,674	$17,714	$19,007	$18,550	$19,478	$19,175
Median income	$18,000	$18,200	$15,804	$18,000	$16,992	$18,000	$18,000
Percent with income reported	94.7	94.0	93.4	94.1	92.5	93.5	93.4
Percent with income reported as zero[a]	0.7	0.9	0.8	0.8	1.5	0.6	0.8
Percent with income not reported[b]	4.7	5.1	5.8	5.1	6.0	5.9	5.8
Non-Hispanic/Latino *(n)*	485,191	375,150	391,824	1,252,165	1,256,484	2,616,484	5,125,133
Average (mean) income	$17,514	$19,876	$15,528	$17,618	$17,084	$19,021	$18,212
Median income	$15,392	$18,000	$12,516	$15,408	$14,400	$16,380	$15,600
Percent with income reported	90.2	90.1	87.6	89.3	87.1	89.6	88.9
Percent with income reported as zero[a]	0.8	0.8	0.8	0.8	1.7	0.6	0.9
Percent with income not reported[b]	9.1	9.2	11.6	9.9	11.2	9.8	10.2
Ethnicity Not Reported *(n)*	373	317	403	1,093	1,670	1,847	4,610
Average (mean) income	$18,560	$20,917	$17,480	$18,881	$16,348	$18,424	$18,097
Median income	$18,600	$19,305	$15,600	$18,240	$15,000	$16,200	$15,600
Percent with income reported	44.0	33.8	29.3	35.6	18.0	36.5	29.6
Percent with income reported as zero[a]	0.0	1.3	0.7	0.6	0.9	1.4	1.0
Percent with income not reported[b]	56.0	65.0	70.0	63.8	81.1	62.1	69.4

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

State and local agencies may collect data on weekly, biweekly, monthly, or annual incomes. For reporting and analysis, annualized incomes were computed.

Income calculations included only those participants for whom State agencies reported data on income, income period, and size of economic unit.

In 2016, a State agency could report actual income or an income range for participants. Calculations of mean and median incomes included both types of data.

[a] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the percentage of participants for whom data were not reported on income, income period, or size of economic unit.

C. Poverty Status

The majority of WIC participants come from households with income at or below the Federal Poverty Guidelines issued each year by HHS. These guidelines are income thresholds for poverty and vary by household size and residency. For 2016, in most areas served by WIC, the poverty guideline for a household of four was $24,300 per year (HHS, 2016).[42] The study team used participant household income, household size, and residency to calculate participant income as a percentage of the Federal Poverty Guidelines. Tables 3.6, 3.7, 3.8, and 3.9 present poverty status information and examine changes over time and differences by participant category, race, and ethnicity.[43] Perhaps because of the general economic recovery and modest increases in WIC participant income, the proportion of WIC participants living in poverty dropped slightly from 2014. Slightly less than two-thirds (65.6 percent) of all WIC participants reported income at or below the Federal Poverty Guidelines, and one-third (32.5 percent) reported income equal to or less than 50 percent of the guidelines (see table 3.6, Total Participants column).[44] This represents decreases of 1.8 and 1.9 percentage points in the proportion of participants with income at or below the Federal Poverty Guidelines and the proportion with income equal to or less than 50 percent of the Federal Poverty Guidelines, respectively, between 2014 and 2016. This is the first year the percentage of WIC participants in poverty has not increased since 2002, when 53.9 percent of participants had income at or below the Federal Poverty Guidelines and 26.5 percent had income equal to or less than 50 percent of the Federal Poverty Guidelines. Prior to 2002, the percentage of WIC participants with income at or below these guidelines had decreased steadily.

A small percentage (1.8 percent) of participants reported income in excess of 185 percent of the Federal Poverty Guidelines. These participants may have been certified in error or deemed adjunctively eligible for WIC based on receipt of Medicaid. As noted in section A of this chapter, the proportion of WIC participants enrolled in Medicaid was 2.2 percentage points greater in 2016 than 2014. Some State agencies employ broad-based categorical eligibility for SNAP, which may also permit participants with income of more than 185 percent of the Federal Poverty Guidelines to be deemed eligible for WIC if they receive certain TANF-funded noncash benefits. However, caution should be used in interpreting these data given that a substantial percentage of participants were missing income data (8.3 percent in 2016).

The general trends discussed here remain consistent when unreported data are excluded from the denominators (see table 3.6, Total Participants With Reported Income columns). Overall, the percentage of WIC participants with income at or below the Federal Poverty Guidelines—as a proportion of only those WIC participants with reported non-zero income—has decreased since 2014 from 74.1 percent to 72.3 percent.

Poverty levels were similar across participant categories in 2016 (see table 3.7). Breastfeeding women were the least likely to have income at or below the Federal Poverty Guidelines (63.3 percent), followed

[42] The Federal Poverty Guidelines are the same for the 48 contiguous States, the District of Columbia, and the 5 U.S. territories; they are different for Alaska and Hawaii. In April 2016, the poverty guideline for a household of four was $30,380 for Alaska and $27,950 for Hawaii (HHS, 2016).

[43] Appendix table B.3.7 presents data on income as a percentage of the Federal Poverty Guidelines by participant category for 2012, 2014, and 2016.

[44] Households missing income data were included in the denominator of the calculations for the values in the Total Participants columns. Households missing income data and households that reported zero income were excluded from the calculations of the values in the Total Participants With Reported Income columns.

closely by pregnant women (63.5 percent). Postpartum women were the most likely to have income at or below these guidelines (68.6 percent).

Appendix table B.3.7 shows a 1.8-percentage-point decrease between 2014 and 2016 in the proportion of WIC participants with income at or below the Federal Poverty Guidelines, which is a reversal of the 0.8-percentage-point increase between 2012 and 2014 and the 2.1-percentage-point increase between 2010 and 2012. The decrease in the proportion of participants with income at or below the poverty guidelines was seen across all certification categories. The smallest decrease was among postpartum women (1.1 percentage points).

Consistent with the findings on average income data reported in the previous section, Asian-only participants were least likely to have income at or below the Federal Poverty Guidelines (60.3 percent; see table 3.8). In contrast, Black or African American-only participants were most likely to have income at or below the poverty guidelines (71.9 percent). This represents a 1.6-percentage-point decrease from 2014. In 2016, the percentage of participants with income at or below the poverty guidelines decreased for every racial and ethnic group, reversing a trend observed since 2008.

In contrast to the findings on mean and median income, which showed Hispanic/Latino participants had higher income than participants from other ethnic groups, a larger percentage of Hispanic/Latino participants (68.6 percent) than those from other ethnic groups (63.5 percent) had income at or below the Federal Poverty Guidelines (see table 3.9).

Table 3.10 presents the distribution of income as a percentage of the Federal Poverty Guidelines for WIC participants who reported no participation in TANF, SNAP, and Medicaid. Participants in this group, which accounted for 18.7 percent of the WIC population (see table 3.1), required less support than the proportion of the WIC population receiving other means-tested benefits. As might be expected, only 52.1 percent of WIC participants who reported no enrollment in TANF, SNAP, and Medicaid had income at or below the poverty guidelines compared with 74.1 percent of the overall WIC population who reported participation in these programs.[45]

Table 3.11 presents data on income as a percentage of poverty for the general U.S. population, American families, families with children up to age 5 (age-eligible for WIC), and WIC participants with reported income. In comparison with the 72.4 percent of WIC participants in poverty, only 13.5 percent of the general U.S. population was in poverty in 2016, with income below the U.S. Census Bureau poverty thresholds.[46] People in families with children younger than 6 had higher rates of poverty than the general population (19.7 percent) but still experienced poverty at much lower rates than WIC participants.

[45] The poverty status of the proportion of the WIC population who reported participation in TANF, SNAP, and Medicaid was calculated from the data in tables 3.7 and 3.10. This calculation included individuals for whom State agencies did not report data on participation in one or more programs.

[46] The Federal poverty thresholds issued by the U.S. Census Bureau and used in the analysis of the general U.S. population are based on family income, size, and age composition. The Federal Poverty Guidelines issued by HHS and used in the analysis of the WIC population are based only on family income and size.

Table 3.6. Percentage of Total Participants and Participants With Reported Income by Income as a Percentage of Federal Poverty Guidelines: 2012, 2014, 2016

Percent of Federal Poverty Guidelines	Total Participants[a]			Total Participants With Reported Income[a]		
	2012	2014	2016	2012	2014	2016
Total Participants *(N)*	9,734,468	9,303,253	8,815,472	8,843,751	8,454,774	8,002,450
0–50	33.4	34.4	32.5	36.7	37.8	35.8
51–100	33.2	33.0	33.1	36.5	36.3	36.5
101–130	11.4	11.2	12.0	12.6	12.3	13.3
131–150	5.3	5.0	5.3	5.8	5.6	5.8
151–185	6.2	5.9	6.0	6.9	6.5	6.6
186–200[b]	0.4	0.4	0.6	0.5	0.5	0.6
More than 200[b]	0.9	0.9	1.2	1.0	1.1	1.4
Income Reported as Zero[c]	0.8	0.9	0.9	N/A	N/A	N/A
Not Reported[d]	8.3	8.2	8.3	N/A	N/A	N/A

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

N/A = not applicable

[a] Federal Poverty Guidelines calculations were based on income, income period, and household size as reported by State agencies. Values in this table represent a count of individual WIC participants.

[b] Some WIC participants reported income in excess of 185 percent of the Federal Poverty Guidelines. These participants may have been certified in error or deemed adjunctively eligible for WIC based on receipt of Medicaid.

[c] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[d] "Not reported" indicates the percentage of participants for whom data were not reported on income, income period, or size of economic unit.

Table 3.7. Percentage of Participants in Participant Category by Income as a Percentage of Federal Poverty Guidelines

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Total Participants *(N)*		800,665		685,047		572,717		2,058,429		2,056,848		4,700,195		8,815,472
0–50	30.8	30.8	28.6	28.6	38.8	38.8	32.3	32.3	34.4	34.4	31.7	31.7	32.5	32.5
51–100	32.7	63.5	34.7	63.3	29.8	68.6	32.6	64.8	31.4	65.8	34.2	65.9	33.1	65.6
101–130	12.9	76.4	13.6	76.9	10.3	78.9	12.4	77.2	11.3	77.1	12.2	78.1	12.0	77.7
131–150	6.0	82.4	6.1	82.9	4.3	83.2	5.6	82.8	4.9	82.0	5.3	83.4	5.3	82.9
151–185	7.0	89.4	7.0	90.0	4.8	88.0	6.4	89.2	5.6	87.6	6.0	89.4	6.0	88.9
186–200[a]	0.8	90.2	0.6	90.6	0.4	88.4	0.6	89.8	0.5	88.1	0.6	90.0	0.6	89.5
201–225[a]	0.8	91.0	0.5	91.1	0.4	88.8	0.6	90.4	0.4	88.5	0.6	90.5	0.5	90.0
226–250[a]	0.4	91.5	0.3	91.4	0.2	89.1	0.3	90.8	0.2	88.8	0.3	90.8	0.3	90.3
More than 250[a]	0.5	91.9	0.4	91.8	0.3	89.4	0.4	91.2	0.4	89.2	0.5	91.3	0.4	90.8
Income Reported as Zero[b]	0.7	92.6	0.8	92.6	0.8	90.2	0.8	92	1.6	90.7	0.6	91.9	0.9	91.7
Not Reported[c]	7.4	100.0	7.4	100.0	9.8	100.0	8.0	100.0	9.3	100.0	8.1	100.0	8.3	100.0

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Federal Poverty Guidelines calculations were based on income, income period, and household size as reported by State agencies.

[a] Some WIC participants reported income in excess of 185 percent of the Federal Poverty Guidelines. These participants may have been certified in error or deemed adjunctively eligible for WIC based on receipt of Medicaid.

[b] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[c] "Not reported" indicates the percentage of participants for whom data were not reported on income, income period, or size of economic unit.

Table 3.8. Percentage of Participants in Participant Category by Race and Income as a Percentage of Federal Poverty Guidelines

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Total American Indian or Alaska Native-Only Participants *(N)*		83,909		72,623		46,473		203,005		170,130		533,563		906,698
0–50	27.7	27.7	25.8	25.8	34.2	34.2	28.5	28.5	30.7	30.7	28.8	28.8	29.1	29.1
51–100	36.4	64.1	40.5	66.3	35.2	69.4	37.6	66.1	37.6	68.3	38.0	66.8	37.8	66.9
101–130	13.8	77.9	14.5	80.8	11.9	81.3	13.6	79.7	12.6	80.9	13.0	79.8	13.1	80.0
131–150	6.0	83.9	5.7	86.5	4.7	86.0	5.6	85.3	4.9	85.8	5.2	85.1	5.2	85.2
151–185	7.2	91.1	6.4	92.9	4.8	90.8	6.4	91.7	5.3	91.0	5.7	90.8	5.8	91.0
186–200[a]	0.6	91.7	0.5	93.3	0.4	91.2	0.5	92.2	0.3	91.4	0.6	91.3	0.5	91.5
201–225[a]	0.6	92.3	0.5	93.8	0.4	91.6	0.5	92.7	0.3	91.7	0.6	91.9	0.5	92.0
226–250[a]	0.3	92.6	0.2	94.1	0.2	91.7	0.2	92.9	0.2	91.9	0.3	92.2	0.3	92.3
More than 250[a]	0.3	92.9	0.3	94.3	0.3	92.0	0.3	93.2	0.2	92.1	0.4	92.6	0.3	92.6
Income Reported as Zero[b]	0.8	93.7	0.7	95.0	0.8	92.8	0.8	94.0	1.4	93.5	1.1	93.7	1.1	93.7
Not Reported[c]	6.3	100.0	5.0	100.0	7.2	100.0	6.0	100.0	6.5	100.0	6.3	100.0	6.3	100.0
Total Asian-Only Participants *(N)*		29,203		31,751		17,411		78,365		68,222		171,017		317,604
0–50	20.6	20.6	20.3	20.3	23.3	23.3	21.1	21.1	22.6	22.6	20.3	20.3	21.0	21.0
51–100	38.2	58.7	38.0	58.4	38.1	61.4	38.1	59.2	38.6	61.3	40.0	60.4	39.3	60.3
101–130	16.9	75.7	16.9	75.3	15.7	77.1	16.6	75.8	15.8	77.0	16.4	76.7	16.3	76.6
131–150	7.9	83.6	7.4	82.7	7.3	84.4	7.6	83.4	6.9	84.0	7.3	84.0	7.3	83.8
151–185	9.4	93.0	9.7	92.4	8.4	92.8	9.3	92.7	8.3	92.3	8.5	92.4	8.6	92.5
186–200[a]	0.9	93.9	0.6	93.0	0.6	93.4	0.7	93.4	0.6	92.8	0.8	93.3	0.8	93.2
201–225[a]	1.0	94.9	0.7	93.7	0.7	94.1	0.8	94.2	0.6	93.4	0.8	94.1	0.8	94.0
226–250[a]	0.4	95.3	0.4	94.1	0.3	94.5	0.4	94.7	0.3	93.7	0.4	94.6	0.4	94.4
More than 250[a]	0.6	95.9	0.5	94.7	0.5	94.9	0.5	95.2	0.4	94.2	0.6	95.1	0.5	95.0
Income Reported as Zero[b]	0.6	96.5	0.9	95.6	0.7	95.6	0.7	95.9	1.0	95.2	0.5	95.6	0.7	95.6
Not Reported[c]	3.5	100.0	4.4	100.0	4.4	100.0	4.1	100.0	4.8	100.0	4.4	100.0	4.4	100.0

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Total Black or African American-Only Participants *(N)*		161,859		124,781		145,854		432,494		467,517		929,363		1,829,374
0–50	40.1	40.1	38.6	38.6	51.8	51.8	43.6	43.6	47.3	47.3	43.9	43.9	44.7	44.7
51–100	28.4	68.5	28.3	66.9	23.3	75.2	26.6	70.3	24.7	72.0	28.7	72.6	27.2	71.9
101–130	9.8	78.2	10.0	77.0	6.5	81.7	8.8	79.0	7.5	79.4	8.7	81.2	8.4	80.3
131–150	4.6	82.9	4.5	81.5	2.5	84.2	3.9	82.9	3.2	82.6	3.6	84.8	3.6	83.8
151–185	5.4	88.3	5.4	86.8	2.9	87.1	4.5	87.5	3.6	86.2	3.9	88.7	4.0	87.8
186–200[a]	0.7	89.0	0.4	87.3	0.2	87.3	0.5	87.9	0.3	86.5	0.3	89.0	0.3	88.1
201–225[a]	0.7	89.7	0.3	87.6	0.2	87.5	0.4	88.4	0.2	86.7	0.3	89.3	0.3	88.4
226–250[a]	0.4	90.1	0.2	87.8	0.1	87.6	0.2	88.6	0.1	86.8	0.2	89.5	0.2	88.6
More than 250[a]	0.3	90.4	0.3	88.1	0.2	87.8	0.3	88.8	0.2	87.0	0.2	89.7	0.2	88.8
Income Reported as Zero[b]	0.7	91.0	0.8	88.8	0.6	88.4	0.7	89.5	2.1	89.1	0.6	90.3	1.0	89.8
Not Reported[c]	9.0	100.0	11.2	100.0	11.6	100.0	10.5	100.0	10.9	100.0	9.7	100.0	10.2	100.0
Total Native Hawaiian or Other Pacific Islander-Only Participants *(N)*		6,217		6,384		4,430		17,031		15,260		37,591		69,882
0–50	33.5	33.5	31.4	31.4	38.0	38.0	33.9	33.9	35.8	35.8	36.6	36.6	35.8	35.8
51–100	34.4	67.9	36.1	67.5	33.2	71.2	34.7	68.6	34.3	70.1	35.4	72.0	35.0	70.7
101–130	13.4	81.3	13.1	80.6	10.8	82.1	12.6	81.2	11.5	81.6	11.5	83.5	11.8	82.5
131–150	5.6	86.9	5.8	86.4	5.1	87.2	5.5	86.8	4.7	86.2	4.7	88.2	4.9	87.4
151–185	6.2	93.0	6.6	93.0	5.3	92.5	6.1	92.9	5.4	91.6	5.1	93.3	5.4	92.8
186–200[a]	0.9	93.9	0.4	93.4	0.3	92.8	0.6	93.4	0.4	92.0	0.5	93.8	0.5	93.3
201–225[a]	0.6	94.5	0.7	94.1	0.3	93.0	0.5	94.0	0.5	92.4	0.4	94.2	0.4	93.7
226–250[a]	0.3	94.8	0.3	94.3	0.2	93.2	0.3	94.2	0.2	92.6	0.2	94.4	0.2	94.0
More than 250[a]	0.5	95.3	0.3	94.7	0.4	93.6	0.4	94.6	0.4	92.9	0.3	94.7	0.4	94.3
Income Reported as Zero[b]	0.6	95.9	0.9	95.6	0.9	94.5	0.8	95.4	1.4	94.4	0.6	95.3	0.8	95.1
Not Reported[c]	4.1	100.0	4.4	100.0	5.5	100.0	4.6	100.0	5.6	100.0	4.7	100.0	4.9	100.0

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Total White-Only Participants *(N)*		492,947		426,158		340,106		1,259,211		1,196,174		2,712,805		5,168,190
0–50	28.8	28.8	26.6	26.6	34.5	34.5	29.6	29.6	30.4	30.4	28.6	28.6	29.3	29.3
51–100	33.2	62.0	35.4	62.1	31.4	65.9	33.5	63.1	32.9	63.3	35.1	63.8	34.2	63.5
101–130	13.5	75.5	14.2	76.3	11.5	77.4	13.2	76.3	12.5	75.8	13.0	76.8	12.9	76.4
131–150	6.3	81.8	6.5	82.8	4.9	82.3	6.0	82.3	5.5	81.3	5.7	82.5	5.7	82.2
151–185	7.4	89.3	7.4	90.3	5.5	87.7	6.9	89.2	6.3	87.6	6.6	89.1	6.6	88.8
186–200[a]	0.9	90.1	0.7	90.9	0.5	88.2	0.7	89.9	0.6	88.1	0.7	89.8	0.6	89.4
201–225[a]	0.9	91.0	0.6	91.5	0.5	88.7	0.7	90.6	0.5	88.6	0.6	90.4	0.6	90.0
226–250[a]	0.4	91.5	0.3	91.8	0.3	89.0	0.4	90.9	0.3	88.9	0.3	90.7	0.3	90.3
More than 250[a]	0.5	92.0	0.5	92.3	0.4	89.5	0.5	91.4	0.5	89.4	0.5	91.2	0.5	90.9
Income Reported as Zero[b]	0.7	92.7	0.9	93.1	0.8	90.3	0.8	92.2	1.4	90.8	0.5	91.8	0.8	91.7
Not Reported[c]	7.3	100.0	6.9	100.0	9.7	100.0	7.8	100.0	9.2	100.0	8.2	100.0	8.3	100.0
Total Two or More Races Participants *(N)*		25,186		22,184		17,290		64,660		134,580		309,510		508,750
0–50	32.7	32.7	30.3	30.3	41.4	41.4	34.2	34.2	36.4	36.4	32.8	32.8	33.9	33.9
51–100	32.2	65.0	33.3	63.5	30.3	71.7	32.1	66.3	29.7	66.1	32.8	65.6	31.9	65.8
101–130	12.8	77.7	14.1	77.7	9.8	81.5	12.4	78.7	11.0	77.2	12.5	78.1	12.1	77.9
131–150	6.2	83.9	6.5	84.2	4.5	86.1	5.9	84.6	5.2	82.3	5.7	83.9	5.6	83.6
151–185	6.9	90.9	7.5	91.6	4.5	90.5	6.5	91.0	5.8	88.2	6.7	90.6	6.4	90.0
186–200[a]	0.8	91.7	0.7	92.3	0.5	91.0	0.7	91.7	0.5	88.7	0.7	91.3	0.6	90.6
201–225[a]	0.8	92.5	0.7	93.0	0.5	91.5	0.7	92.4	0.5	89.2	0.7	91.9	0.6	91.3
226–250[a]	0.5	93.0	0.4	93.4	0.2	91.7	0.4	92.8	0.3	89.5	0.4	92.3	0.4	91.6
More than 250[a]	0.5	93.4	0.4	93.8	0.3	92.0	0.4	93.2	0.4	89.9	0.6	92.9	0.5	92.1
Income Reported as Zero[b]	0.8	94.2	0.7	94.5	0.8	92.9	0.8	93.9	1.7	91.6	0.6	93.5	0.9	93.0
Not Reported[c]	5.8	100.0	5.5	100.0	7.1	100.0	6.1	100.0	8.4	100.0	6.5	100.0	7.0	100.0

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Total Race Not Reported Participants *(N)*		1,344		1,166		1,153		3,663		4,965		6,346		14,974
0–50	16.7	16.7	15.6	15.6	16.3	16.3	16.2	16.2	14.3	14.3	15.7	15.7	15.4	15.4
51–100	19.3	36.0	13.6	29.2	11.5	27.8	15.1	31.3	10.6	24.9	13.8	29.5	13.0	28.4
101–130	6.3	42.3	3.9	33.2	3.6	31.4	4.7	36.0	2.8	27.7	4.1	33.6	3.8	32.2
131–150	3.9	46.3	1.6	34.8	1.0	32.4	2.3	38.3	1.1	28.8	1.8	35.4	1.7	33.9
151–185	3.6	49.9	2.4	37.2	2.0	34.4	2.7	41.0	1.1	29.9	1.8	37.2	1.8	35.7
186–200[a]	0.8	50.7	0.2	37.4	0.0	34.6	0.4	41.4	0.1	30.1	0.1	37.3	0.2	35.9
201–225[a]	0.7	51.5	0.2	37.6	0.1	34.7	0.4	41.8	0.1	30.1	0.0	37.3	0.1	36.0
226–250[a]	0.4	51.9	0.2	37.7	0.0	34.7	0.2	42.0	0.1	30.2	0.1	37.4	0.1	36.1
More than 250[a]	0.3	52.2	0.3	38.0	0.0	34.9	0.2	42.2	0.1	30.3	0.1	37.6	0.1	36.3
Income Reported as Zero[b]	1.3	53.4	1.2	39.2	1.2	36.1	1.2	43.4	2.0	32.2	1.6	39.2	1.6	37.9
Not Reported[c]	46.6	100.0	60.8	100.0	63.9	100.0	56.6	100.0	67.8	100.0	60.8	100.0	62.1	100.0

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Federal Poverty Guidelines calculations were based on income, income period, and household size as reported by State agencies.

[a] Some WIC participants reported income in excess of 185 percent of the Federal Poverty Guidelines. These participants may have been certified in error or deemed adjunctively eligible for WIC based on receipt of Medicaid.

[b] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[c] "Not reported" indicates the percentage of participants for whom data were not reported on income, income period, or size of economic unit.

Table 3.9. Percentage of Participants in Participant Category by Ethnicity and Income as a Percentage of Federal Poverty Guidelines

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Total Hispanic/Latino Participants *(N)*		315,101		309,580		180,490		805,171		798,694		2,081,864		3,685,729
0–50	27.8	27.8	27.2	27.2	34.1	34.1	29.0	29.0	31.0	31.0	29.4	29.4	29.6	29.6
51–100	37.9	65.7	40.7	67.9	36.8	70.8	38.7	67.7	37.9	68.9	39.5	68.8	39.0	68.6
101–130	14.1	79.8	13.7	81.6	12.0	82.8	13.5	81.2	12.5	81.3	12.7	81.5	12.8	81.4
131–150	6.0	85.9	5.2	86.9	4.5	87.3	5.4	86.6	4.8	86.1	5.0	86.5	5.0	86.4
151–185	6.8	92.7	5.8	92.7	4.8	92.1	6.0	92.6	5.2	91.4	5.4	91.9	5.5	91.9
186–200[a]	0.7	93.4	0.5	93.1	0.4	92.5	0.5	93.1	0.4	91.7	0.5	92.4	0.5	92.4
201–225[a]	0.7	94.0	0.4	93.5	0.4	92.9	0.5	93.6	0.3	92.1	0.5	92.9	0.5	92.9
226–250[a]	0.3	94.3	0.2	93.7	0.2	93.1	0.2	93.8	0.2	92.3	0.3	93.1	0.2	93.1
More than 250[a]	0.3	94.7	0.2	94.0	0.3	93.4	0.3	94.1	0.3	92.5	0.4	93.5	0.3	93.4
Income Reported as Zero[b]	0.7	95.3	0.9	94.9	0.8	94.2	0.8	94.9	1.5	94.0	0.6	94.1	0.8	94.2
Not Reported[c]	4.7	100.0	5.1	100.0	5.8	100.0	5.1	100.0	6.0	100.0	5.9	100.0	5.8	100.0
Total Non-Hispanic/Latino Participants *(N)*		485,191		375,150		391,824		1,252,165		1,256,484		2,616,484		5,125,133
0–50	32.7	32.7	29.7	29.7	40.9	40.9	34.4	34.4	36.6	36.6	33.6	33.6	34.5	34.5
51–100	29.3	62.0	29.8	59.5	26.6	67.5	28.6	63.0	27.3	63.9	30.0	63.5	29.0	63.5
101–130	12.1	74.1	13.5	73.0	9.5	77.1	11.7	74.7	10.6	74.5	11.9	75.4	11.5	75.0
131–150	6.0	80.1	6.8	79.8	4.2	81.3	5.7	80.4	5.0	79.5	5.6	80.9	5.4	80.4
151–185	7.2	87.3	8.1	87.8	4.8	86.1	6.7	87.1	5.9	85.4	6.5	87.5	6.4	86.9
186–200[a]	0.9	88.2	0.7	88.5	0.4	86.6	0.7	87.8	0.5	85.9	0.6	88.1	0.6	87.5
201–225[a]	0.9	89.1	0.6	89.2	0.4	87.0	0.7	88.5	0.5	86.4	0.6	88.7	0.6	88.1
226–250[a]	0.5	89.6	0.4	89.5	0.2	87.3	0.4	88.9	0.3	86.6	0.3	89.1	0.3	88.4
More than 250[a]	0.5	90.2	0.5	90.1	0.4	87.6	0.5	89.3	0.5	87.1	0.6	89.6	0.5	88.9
Income Reported as Zero[b]	0.8	90.9	0.8	90.8	0.8	88.4	0.8	90.1	1.7	88.8	0.6	90.2	0.9	89.8
Not Reported[c]	9.1	100.0	9.2	100.0	11.6	100.0	9.9	100.0	11.2	100.0	9.8	100.0	10.2	100.0

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Total Ethnicity Not Reported Participants *(N)*		373		317		403		1,093		1,670		1,847		4,610
0–50	15.3	15.3	10.4	10.4	13.2	13.2	13.1	13.1	8.3	8.3	13.3	13.3	11.4	11.4
51–100	15.3	30.6	12.9	23.3	8.4	21.6	12.1	25.2	6.4	14.7	15.0	28.3	11.2	22.6
101–130	6.7	37.3	4.7	28.1	4.2	25.8	5.2	30.4	1.3	15.9	4.4	32.7	3.5	26.1
131–150	4.0	41.3	2.2	30.3	0.5	26.3	2.2	32.6	1.0	16.9	1.8	34.5	1.6	27.7
151–185	2.7	44.0	3.5	33.8	2.5	28.8	2.8	35.4	0.8	17.7	1.8	36.3	1.7	29.4
186–200[a]	0.0	0.0	0.0	0.0	0.0	28.8	0.0	0.0	0.0	17.8	0.0	0.0	0.0	29.4
201–225[a]	0.0	0.0	0.0	33.8	0.0	29.0	0.1	35.5	0.0	17.8	0.0	0.0	0.0	29.4
226–250[a]	0.0	44.0	0.0	33.8	0.0	29.0	0.0	35.5	0.0	17.9	0.1	36.4	0.1	29.5
More than 250[a]	0.0	44.0	0.0	33.8	0.0	29.3	0.0	35.6	0.1	18.0	0.1	36.5	0.1	29.6
Income Reported as Zero[b]	0.0	44.0	1.3	35.0	0.7	30.0	0.6	36.2	0.9	18.9	1.4	37.9	1.0	30.6
Not Reported[c]	56.0	100.0	65.0	100.0	70.0	100.0	63.8	100.0	81.1	100.0	62.1	100.0	69.4	100.0

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Federal Poverty Guidelines calculations were based on income, income period, and household size as reported by State agencies.

[a] Some WIC participants reported income in excess of 185 percent of the Federal Poverty Guidelines. These participants may have been certified in error or deemed adjunctively eligible for WIC based on receipt of Medicaid.

[b] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[c] "Not reported" indicates the percentage of participants for whom data were not reported on income, income period, or size of economic unit.

Table 3.10. Percentage of Participants in Participant Category by Income as a Percentage of Federal Poverty Guidelines for Participants Who Reported No Participation in Other Benefit Programs

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Participants	198,217	100.0	175,737	100.0	101,915	100.0	475,869	100.0	520,547	100.0	655,456	100.0	1,651,872	100.0
0–50	39,182	19.8	34,634	19.7	23,989	23.5	97,805	20.6	139,854	26.9	131,616	20.1	369,275	22.4
51–100	62,264	31.4	59,316	33.8	31,183	30.6	152,763	32.1	159,313	30.6	177,987	27.2	490,063	29.7
101–130	34,660	17.5	29,590	16.8	16,043	15.7	80,293	16.9	74,690	14.3	111,814	17.1	266,797	16.2
131–150	20,439	10.3	17,080	9.7	9,173	9.0	46,692	9.8	41,819	8.0	72,953	11.1	161,464	9.8
151–185	28,023	14.1	23,729	13.5	12,247	12.0	63,999	13.4	55,612	10.7	109,686	16.7	229,297	13.9
186–200[a]	1,800	0.9	596	0.3	287	0.3	2,683	0.6	982	0.2	2,150	0.3	5,815	0.4
201–225[a]	2,087	1.1	552	0.3	336	0.3	2,975	0.6	928	0.2	2,067	0.3	5,970	0.4
226–250[a]	793	0.4	313	0.2	194	0.2	1,300	0.3	526	0.1	875	0.1	2,701	0.2
More than 250[a]	339	0.2	475	0.3	291	0.3	1,105	0.2	937	0.2	1,679	0.3	3,721	0.2
Income Reported as Zero[b]	5,135	2.6	5,215	3.0	3,913	3.8	14,263	3.0	29,273	5.6	25,593	3.9	69,129	4.2
Not Reported[c]	3,495	1.8	4,237	2.4	4,259	4.2	11,991	2.5	16,613	3.2	19,036	2.9	47,640	2.9

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

This table does not include information on participants with missing data on participation in benefit programs other than WIC.

[a] Some WIC participants reported income in excess of 185 percent of the Federal Poverty Guidelines. These participants may have been certified in error or deemed adjunctively eligible for WIC based on receipt of Medicaid.

[b] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[c] "Not reported" indicates the percentage of participants for whom data are not reported on income, income period, or size of economic unit.

Table 3.11. Poverty Status of Participants Who Reported Income Versus General U.S. Population

Percent of Federal Poverty Measure[a]	General U.S. Population[b]	Persons in U.S. Families[b]	Persons in U.S. Families With Related Children Younger Than 6[b]	Total Participants With Reported Income[c]
Total *(N)*	318,454,000	258,121,000	16,452,000	8,079,403
Less than 100	13.5	11.6	19.7	72.4
100–less than 130	5.4	5.0	7.1	13.2
130–less than 150	3.6	3.3	4.9	5.7
150¬–less than 185	6.4	6.2	8.0	6.7
185–less than 200[d]	2.8	2.7	3.1	0.6
200 or more[d]	68.3	71.2	57.2	1.4

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding and weighting of data for several State agencies that either under- or overreported the number of participants.

Table 3.11 has fewer income categories than similar tables in previous WIC PC reports because of changes in published U.S. Census Bureau estimates after 2014.

[a] The Federal poverty thresholds issued by the U.S. Census Bureau and used in the analysis of the general U.S. population are based on family income, size, and age composition. The Federal Poverty Guidelines issued by HHS and used in the analysis of the WIC population are based only on family income and size.

[b] Current Population Survey poverty thresholds reflect respondents' 2015 income (DOL BLS, n.d.).

[c] Federal Poverty Guidelines calculations were based on income, income period, and household size as reported by State agencies. Values in this table represent a count of individual WIC participants. Income calculations included participants with zero income and excluded participants missing data on income. Poverty guidelines cutoffs are slightly different from those provided in tables 3.5–3.8 to be comparable with Current Population Survey tabulations.

[d] Some WIC participants reported income in excess of 185 percent of the Federal Poverty Guidelines. These participants may have been certified in error or deemed adjunctively eligible for WIC based on receipt of Medicaid.

Chapter 4. Nutritional Risk Characteristics

To qualify for WIC benefits, applicants must be determined to be at nutritional risk based on anthropometric, biochemical, clinical, dietary, or other factors. During the eligibility determination process, height and weight are measured, and a blood test for anemia (usually hemoglobin or hematocrit) is administered to all applicants except infants younger than 9 months. Medical history and dietary patterns are also considered during this process. A competent professional authority, such as a physician, nutritionist, nurse, or other health professional or paraprofessional, determines the participant's level of nutritional risk based on these data.

Prior to 1999, Federal policy permitted each State agency to develop nutritional risk criteria within the broad Federal parameters spelled out in the Child Nutrition Act of 1966 (Pub. L. 89–642, as amended). Accordingly, each State agency developed its own set of nutritional risk criteria to determine eligibility. WIC PC reports from 1988 through 1998 reflect these differences in criteria. In 1992, FNS asked IOM (now known as the Health and Medicine Division) of the National Academies to review the scientific basis for these criteria and recommend definitions and thresholds. In 1996, IOM issued a report with a series of recommendations that were the basis for a policy change that took effect April 1, 1999 (IOM, 1996). Now, State agencies are required to use only those criteria and definitions that have been reviewed by the Risk Identification and Selection Collaborative (a joint National WIC Association/FNS working group) and approved by FNS. State agencies must use criteria that meets or exceeds the national nutritional risk criteria established by FNS. Caution should be exercised when comparing PC2016 nutritional risk data with findings from years prior to 2000, before nutritional risk data were reported using uniform criteria and definitions.

FNS has revised the nutritional risk criteria several times since 1999. A description of these changes, which affect analyses of trends over time, follows.

- **WIC Policy Memorandum 98-9, Revision 8.** Between 2006 and 2008, FNS implemented this policy memorandum, which revised and consolidated dietary risks and shifted dietary risk criteria between nutritional risks (USDA FNS, 2005). Although Revision 8 was implemented in October 2006, the most significant effects of this revision with respect to the consolidation of dietary risks were seen in 2010.
- **WIC Policy Memorandum 98-9, Revision 9.** This policy memorandum was implemented between 2008 and 2010. This revision expanded criteria for maternal smoking for the nutritional risk of substance abuse and added a new risk criterion—exposure to environmental tobacco smoke—for the nutritional risk of "other nutritional risks" (USDA FNS, 2007).

- **WIC Policy Memorandum 98-9, Revision 10.** This revision, implemented between 2010 and 2012, added two new nutritional risk criteria, history of preeclampsia and pre-diabetes. It also revised and updated a number of existing risk criteria; for example, it lowered the body mass index (BMI) threshold below which pregnant women would be assigned the risk of low weight-for-height and lowered the threshold above which pregnant women would be assigned the risk of high weight-for-height (USDA FNS, 2009).[47] PC2016 data reflect the continuing decline in the number of pregnant women who are assigned the risk of low weight-for-height, as well as the increase in pregnant women who are assigned the risk of high weight-for-height, resulting from these changes in BMI thresholds.
- **May 2011 Memorandum.** A memorandum issued by FNS on May 27, 2011, and implemented in October 2012 revised a number of anthropometric risks for infants and young children (USDA FNS, 2011). Among the changes prompted by this guidance was for measurements for infants and children younger than 2 to be compared against World Health Organization (WHO) growth standards (WHO, 2006) to determine percentiles and associated risk criteria. Prior to the issuance of the memorandum, these comparisons were made using CDC growth standards issued in 2000 (CDC, 2016a). This shift resulted in minor modifications to existing nutritional risk criteria cutoffs for being underweight or at risk of being underweight and for low head circumference. The May 2011 Memorandum also created the high weight-for-length risk criteria for infants and children younger than 2. For infants and children participating in WIC to be assigned the high weight-for-height/length risk,[48] they must now either (1) be at risk for overweight based on the risk criterion for biological parent BMI (an old criterion), or (2) have specific weight and length measurements that fall within the parameters for high weight-for-length according to WHO growth standards (a new criterion; USDA FNS, 2011). Prior to this change, infants and children younger than 2 were assigned the high weight-for-height/length risk based solely on biological parent BMI. This change means PC2016 high weight-for-height/length percentiles for infants and children younger than 2 are not comparable with values reported in PC2012 or any earlier year.

Table 4.1 presents specific nutritional risks within their respective broad categories of nutritional risk as of April 2016. Analysis and tabulations of nutritional risks included in this report are based on these levels of nutritional risk categorization (i.e., specific nutritional risk and broad risk category). Appendix table C.4.1 provides additional detail on the criteria used to define specific nutritional risks.

This chapter presents data on the nutritional risks assigned to WIC participants. Section A of this chapter examines the number of specific nutritional risks per participant. Section B discusses differences in specific nutritional risks across demographic and economic characteristic categories. Section C presents information on the height/length and weight of participants as measured at certification and compares the measurements with standardized distributions. Section D, the last section in this chapter, examines participant blood values.

[47] Revision 10 lowered the prepregnancy BMI cutoff value for pregnant women to be assigned the risk of low weight-for-height (based on the underweight risk criterion) from less than 19.8 to less than 18.5. This revision also lowered the prepregnancy BMI cutoff value for pregnant women to be assigned the risk for high weight-for-height/length (based on the overweight risk criterion) from less than or equal to 26.1 to less than or equal to 25.0.

[48] The criteria for the risk for high weight-for-height/length are as follows: overweight (women); obese (children aged 2–5); overweight or at risk of being overweight (infants and children); and high weight-for-length (infants and children younger than 2).

Table 4.1. Broad Categories of FNS-Issued Specific Nutritional Risks

Anthropometric	Biochemical	Clinical/Health/Medical	Dietary	Other Risks
• Low weight-for-height • High weight-for-height • Short stature • Inappropriate growth/weight gain pattern • Low birth weight/Premature birth • Other anthropometric risk	• Hematocrit or hemoglobin below FNS criteria • Other biochemical test results that indicate nutritional abnormality (e.g., elevated blood lead levels)	• Pregnancy-induced conditions (e.g., hyperemesis gravidarum, gestational diabetes, history of gestational diabetes, history of preeclampsia) • Delivery of low-birthweight or premature infant • Prior stillbirth, fetal, or neonatal death • General obstetrical risks (e.g., multiple fetus births, high parity and young age, closely spaced pregnancies) • Nutrition-related risk conditions (e.g., any nutrition-related chronic disease, genetic disorder, infectious disease, gastrointestinal disorders, drug nutrient interactions, pre-diabetes) • Substance abuse (e.g., drugs, alcohol, tobacco) • Other health risks (e.g., fetal alcohol syndrome, dental problems)	• Failure to meet Dietary Guidelines for Americans • Inappropriate nutrition practices	• Regression/Transfer (nutritional risk unknown)/Presumptive eligibility • Breastfeeding mother and infant dyad • Infant of a WIC-eligible mother or mother at risk during pregnancy • Homelessness/Migrancy • Other nutritional risks

A. Nutritional Risk Criteria

During the eligibility determination and recertification processes, WIC staff collect anthropometric, biochemical, medical history, and dietary information from applicants and participants. Beginning in 2006, State agencies could report the 10 highest priority nutritional risks assigned during eligibility determination/recertification. Prior to 2006, States could report the three highest priority nutritional risks assigned.

The percentage of WIC participants for whom only one nutritional risk was reported decreased from 48.0 percent in 2012 to 46.0 percent in 2014 and 44.6 percent in 2016 (see table 4.2). Multiple risks were most likely to be reported for women. In 2016, more than one risk was reported for roughly four-fifths of participants in each certification category for women as well as for three-fifths of infants and slightly more than two-fifths of children. More than three nutritional risks were reported for fewer than 8 percent of infants and fewer than 3 percent of children.

State agencies reported the most nutritional risks for breastfeeding women; more than three risks were reported for 30.0 percent of these participants, whereas one risk was reported for only 16.6 percent of these participants, the lowest percentage of any certification category.

Table 4.2. Percentage of Participants in Participant Category by Number of Nutritional Risk Factors: 2012, 2014, 2016

Number of Nutritional Risk Factors	Pregnant Women			Breastfeeding Women			Postpartum Women			Infants			Children			Total Nutritional Risk Factors		
	2012	2014	2016	2012	2014	2016	2012	2014	2016	2012	2014	2016	2012	2014	2016	2012	2014	2016
1	23.6	22.6	21.6	18.4	17.5	16.6	21.6	21.4	19.4	44.8	41.8	39.8	61.2	59.1	57.9	48.0	46.0	44.6
2	29.7	29.2	29.3	27.2	26.7	26.3	28.1	27.9	27.2	35.4	35.2	35.0	29.4	30.3	30.6	30.6	30.9	30.9
3	25.8	26.2	26.3	26.6	26.7	27.0	25.8	25.7	26.4	14.5	16.2	17.1	7.7	8.4	8.8	13.6	14.4	14.9
4	13.4	14.0	14.1	17.3	17.7	17.9	15.1	15.3	16.0	4.1	5.0	5.6	1.3	1.6	1.8	5.2	5.7	5.9
5	5.1	5.4	5.6	7.7	8.1	8.3	6.6	6.7	7.2	0.9	1.2	1.5	0.2	0.2	0.4	1.8	2.0	2.2
6	1.6	1.8	2.1	2.1	2.5	2.8	2.0	2.2	2.6	0.1	0.3	0.5	0.0	0.0	0.2	0.5	0.6	0.8
7	0.5	0.5	0.8	0.5	0.6	0.8	0.5	0.6	0.8	0.0	0.1	0.2	0.0	0.0	0.1	0.1	0.2	0.3
8	0.1	0.1	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No risk reported	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.2	0.2	0.4	0.2	0.2	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note

Percentages may not add to 100.0 because of rounding.

B. Nutritional Risks by Demographic and Economic Characteristics

Consistent with the results for earlier PC reports, the most commonly assigned broad categories of nutritional risk reported for the entire WIC population were dietary and anthropometric risks, which were assigned to 57.0 percent and 51.8 percent of participants, respectively (see table 4.3). For the most part, nutritional risks were assigned at similar rates in 2014 and 2016, but there were two changes over this time period. First, the proportion of WIC participants assigned the specific nutritional risk of failure to meet Dietary Guidelines for Americans decreased from 10.3 percent in 2014 to 8.6 percent in 2016. This decrease follows a general downward trend in the use of this nutritional risk after the implementation of WIC Policy Memorandum 98-9, Revision 8 (USDA FNS, 2005), which established the failure to meet Dietary Guidelines for Americans as a presumed dietary risk criterion for women and children and restricted its assignment to those for whom no other risk criteria were identified.

Second, the proportion of WIC participants assigned the specific nutritional risk of high weight-for-height/length increased from 30.9 percent in 2014 to 32.2 in 2016 (see table 4.3). Comparisons among tables 4.6, 4.7, and 4.8 in this report and the PC2014 report indicated this increase was most prominent for infants and children younger than 2, likely because of the revisions to nutritional risk criteria mandated under the May 2011 Memorandum. The proportion of infants assigned this risk increased by 3.1 percentage points (from 15.0 percent in 2014 to 18.1 percent in 2016), and the proportion of 1-year-old children assigned this risk increased by 1.7 percentage points (from 18.2 in 2014 to 19.9 in 2016). However, the proportion of older children who displayed this risk remained essentially unchanged. This increase in high weight-for-height/length was particularly apparent among older infants. Whereas the proportion of 0- to 3-month-old infants who displayed this nutritional risk increased by roughly 8.0 percentage points, the increase for 9- to 11-month-old infants was twice as great at 16.5 percentage points.

Tables 4.4 and 4.6 provide information on nutritional risks for women participants. Table 4.4 presents broad categories of nutritional risk by age. The broad category of clinical, health, and medical risks was more likely to be assigned to women younger than 18 than older women. This risk was assigned to 96.2 percent of women younger than 15 and 92.7 percent of women aged 15 to 17 compared with 53.3 percent of women aged 18 to 34 and 58.8 percent of women older than 34.

Anthropometric risks, as a broad category, showed the opposite trend. Younger women were less likely than older women to have these risks; 65.3 percent of women younger than 15 and 66.3 percent of women aged 15 to 17 displayed these risks compared with 74.1 percent of women aged 18 to 34 and 78.6 percent of women older than 34.

The specific nutritional risks reported most frequently for women participants in PC2016 were high weight-for-height/length (56.7 percent), inappropriate growth or weight gain pattern (45.1 percent), and inappropriate nutritional practices (32.8 percent; see table 4.6). Other relatively common risks among women included general obstetrical risks (26.3 percent) and blood values below FNS-issued criteria (24.7 percent).

The relative prevalence of these nutritional risks varied among pregnant, breastfeeding, and postpartum women. Breastfeeding women were more likely to be assigned a specific nutritional risk in the broad category of "other" risk because it includes the breastfeeding mother/infant dyad; this finding mirrored those of previous years. Almost half (48.7 percent) of breastfeeding women were assigned a risk in the "other" risk category compared with only 10.3 percent of pregnant and 11.9 percent of postpartum

women. Pregnant women were more likely to be assigned the risk for general obstetrical risks but less likely to be assigned the risk for hematocrit/hemoglobin levels below FNS-issued criteria compared with other women participants. About a third (30.9 percent) of pregnant women were assigned the risk for general obstetrical risks compared with 22.4 percent and 24.8 percent of breastfeeding and postpartum women, respectively. Only 10.1 percent of pregnant women were assigned the risk of hematocrit or hemoglobin levels below FNS-issued criteria compared with 31.2 percent of breastfeeding women and 37.2 percent of postpartum women.

The percentage of women in all categories assigned the specific nutritional risk of hematocrit or hemoglobin below FNS-issued criteria increased slowly but steadily between 2002 and 2012 from 6.6 percent to 24.4 percent. In 2014, the percentage of women assigned this risk decreased to 23.8 percent but increased again in 2016 to 24.7 percent. However, prevalence levels in 2016 were still below those observed in 1998, especially for pregnant women.

Specific nutritional risks for infants varied by age at certification (see tables 4.5 and 4.7). The broad category of dietary risks was more likely to be assigned to older infants in 2016: these risks were assigned to 52.8 percent of infants certified between 6 and 8 months of age and 56.2 percent of infants certified between 9 and 11 months of age. By comparison, 33.0 percent of infants certified between 0 and 3 months of age and 39.9 percent of infants certified between 4 and 5 months of age were assigned these risks. More than two-fifths (45.3 percent) of all infants were assigned risks in the broad anthropometric risk category, most commonly the risks for low birth weight or high weight-for-height/length. More than four-fifths (82.9 percent) of infants aged 0 to 3 months and almost two-thirds (63.8 percent) of infants aged 4 to 5 months were at risk because their mothers were WIC eligible or were at risk during pregnancy.

The most common broad categories of nutritional risks assigned to children were dietary risks (74.2 percent) and anthropometric risks (44.8 percent; see table 4.5). At certification, roughly one-third (30.4 percent to 35.0 percent, depending on age) of children aged 2 and older were assigned the specific anthropometric risk of high weight-for-height/length (see table 4.8). The proportion of 1-year-old children assigned the nutritional risk of high weight-for-height/length was smaller, at 19.9 percent, but this level reflected a substantial increase since 2012, when only 7.6 percent were assigned this risk. This increase is likely a result of the addition between PC2012 and PC2014 of high weight-for-length as a nutritional risk criterion for children younger than 2.

Tables 4.9 and 4.10 present the most frequently assigned risks by participant category. As discussed earlier in this section, the assignment of high weight-for-height/length rose significantly (8.4 percentage points) among infants between 2012 and 2014 but increased by only 3.1 percentage points between 2014 and 2016. Table 4.10 illustrates the most frequently assigned specific nutritional risks by age at certification for pregnant women.

Tables 4.11 through 4.26 illustrate the assignment of specific nutritional risks and broad risk categories by race and ethnicity. The general patterns of reported nutritional risks by race/ethnicity are similar to those in 2014 reporting. Notable findings from these tables follow.

1. Women

- Blood measurements below FNS-issued criteria occurred most frequently among Black or African American-only women (37.7 percent compared with less than 23.9 percent for all other racial groups; see table 4.13).
- Asian-only women were most likely to be assigned the risk of low weight-for-height (7.4 percent; see table 4.12), whereas Native Hawaiian or Other Pacific Islander-only women were most likely to be assigned the risk of high weight-for-height (62.5 percent; see table 4.13).
- American Indian or Alaska Native-only, Hispanic/Latino, and multiracial pregnant women were more likely than other pregnant women to be assigned an inappropriate growth or weight-gain pattern risk. Meanwhile, American Indian or Alaska Native-only and Asian-only postpartum women were less likely than other postpartum women to be assigned this risk.
- Substance abuse (drugs, alcohol, and/or tobacco) among pregnant WIC women was most prevalent for White-only women (14.6 percent; see table 4.15) and multiracial women (17.5 percent; see table 4.16). Notable differences in reported rates of the risk of substance abuse were also apparent between Hispanic/Latino and non-Hispanic/Latino pregnant women (5.7 percent and 16.5 percent, respectively; see tables 4.17 and 4.18).
- Asian-only pregnant women were more likely than women of other races to be assigned the failure to meet Dietary Guidelines for Americans risk (11.4 percent; see table 4.12).

2. Infants

- The risk most commonly reported for infants across all racial and ethnic categories was WIC-eligible mother or mother at risk during pregnancy (79.7 percent; see table 4.7).
- Black or African American-only infants (21.0 percent; see table 4.13) were more likely than infants in other racial groups (15.8 percent or fewer) to be assigned low birth weight or premature birth risks, and non-Hispanic/Latino infants were more likely than Hispanic/Latino infants to be assigned this risk (17.9 percent versus 14.4 percent, respectively; see tables 4.17 and 4.18).
- Hispanic/Latino infants (83.7 percent; see table 4.17) were more likely than non-Hispanic/Latino infants (77.2 percent; see table 4.18) to have a WIC-eligible mother or mother at risk during pregnancy.

3. Children

- The broad risk category of dietary risk was the category most commonly assigned to children regardless of race or ethnicity (74.2 percent; see table 4.5).
- American Indian or Alaska Native-only children were somewhat more likely than other children to be assigned the risk of high weight-for-height/length (31.9 percent; see table 4.11).
- Black or African American-only children were roughly twice as likely as any other racial or ethnic groups to be assigned the risk of blood measurements below FNS-issued criteria (21.1 percent; see table 4.13).

Tables 4.27 through 4.33 present distributions of specific nutritional risks and broad risk categories by participant income as a percentage of the Federal Poverty Guidelines. The differences seen across Federal Poverty Guidelines in 2016 were similar to findings in previous years. Women at lower income levels were assigned higher levels of obstetrical risk; 27.9 percent of women with income at or below the poverty guidelines were assigned this risk compared with 22.0 percent of women with income of between 130 and 185 percent of the guidelines (see table 4.27). Women at lower income levels were also assigned the blood measures below FNS-issued criteria risk more frequently, with 26.2 percent of women with income at or below the poverty guidelines assigned this risk compared with 20.0 percent of women with income of between 130 and 185 percent of the guidelines.

Table 4.3. Distribution of Participants by Specific Nutritional Risk Reported: 2014, 2016

Broad Risk Category and Specific Nutritional Risk	2014		2016	
	Number	%	Number	%
Total Risks Reported	17,526,712	–	17,081,732	–
Total Participants	9,303,253	–	8,815,472	–
Anthropometric	4,581,627	49.2	4,570,729	51.8
Low weight-for-height	479,472	5.2	470,365	5.3
High weight-for-height/length	2,876,196	30.9	2,842,632	32.2
Short stature	597,530	6.4	629,552	7.1
Inappropriate growth or weight gain pattern	1,140,852	12.3	1,203,352	13.7
Low birth weight or premature birth	534,965	5.8	591,918	6.7
Other anthropometric risk	133,411	1.4	129,178	1.5
Biochemical	1,135,357	12.2	1,143,370	13.0
Hematocrit or hemoglobin below FNS criteria	1,132,719	12.2	1,139,342	12.9
Other biochemical test results that include nutritional abnormality	3,205	< 0.1	4,927	0.1
Clinical, Health, and Medical	1,740,865	18.7	1,679,614	19.1
Pregnancy-induced conditions	165,923	1.8	164,170	1.9
Delivery of low-birthweight or premature infant	185,190	2.0	195,925	2.2
Prior stillbirth, fetal, or neonatal death	68,818	0.7	67,993	0.8
General obstetrical risks	578,253	6.2	542,388	6.2
Nutrition-related risk conditions	879,493	9.5	866,701	9.8
Substance abuse	228,885	2.5	223,895	2.5
Other health risks	160,160	1.7	165,315	1.9
Dietary	5,397,824	58.0	5,022,603	57.0
Failure to meet Dietary Guidelines for Americans	955,604	10.3	753,813	8.6
Inappropriate nutrition practices	4,541,176	48.8	4,321,606	49.0
Other Risks	2,659,303	28.6	2,535,310	28.8
Regression/Transfer/Presumptive eligibility	135,053	1.5	123,228	1.4
Breastfeeding mother and infant dyad	472,670	5.1	502,119	5.7
Infant of a WIC-eligible mother or mother at risk during pregnancy	1,761,912	18.9	1,676,530	19.0
Homelessness/Migrancy	35,103	0.4	42,115	0.5
Other nutritional risks	460,122	4.9	424,668	4.8
No Risk Reported	25,707	0.3	14,360	0.2

Note
For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

Table 4.4. Distribution of Women Participants With Broad Risk Category Reported by Participant Category and Age at Certification

Participant Category and Age at Certification	Anthropometric		Biochemical		Clinical, Health, and Medical		Dietary		Other Risks[a]		No Risk Reported		Total Women	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Pregnant Women	652,883	81.5	81,124	10.1	436,758	54.5	337,122	42.1	82,124	10.3	321	< 0.1	800,665	100.0
Younger than 15	1,026	73.2	206	14.7	1,355	96.6	541	38.6	511	36.4	0	0.0	1,402	100.0
15–17	21,293	75.4	3,363	11.9	26,249	93.0	10,818	38.3	7,767	27.5	11	< 0.1	28,238	100.0
18–34	557,202	81.4	68,816	10.1	359,627	52.5	288,012	42.1	67,740	9.9	289	< 0.1	684,526	100.0
35 or older	73,262	84.8	8,730	10.1	49,455	57.3	37,706	43.7	6,075	7.0	16	< 0.1	86,378	100.0
Age not reported	100	82.6	9	7.4	72	59.5	45	37.2	31	25.6	5	4.1	121	100.0
Breastfeeding Women	471,912	68.9	214,115	31.3	355,253	51.9	257,852	37.6	333,483	48.7	394	0.1	685,047	100.0
Younger than 15	250	55.1	173	38.1	427	94.1	151	33.3	239	52.6	1	0.2	454	100.0
15–17	6,762	56.7	4,603	38.6	10,961	91.9	4,422	37.1	5,816	48.7	1	< 0.1	11,933	100.0
18–34	392,429	68.2	179,299	31.2	288,196	50.1	216,657	37.7	278,158	48.3	342	0.1	575,361	100.0
35 or older	72,371	74.5	30,007	30.9	55,585	57.2	36,565	37.6	49,186	50.6	45	< 0.1	97,159	100.0
Age not reported	100	71.4	33	23.6	84	60.0	57	40.7	84	60.0	5	3.6	140	100.0
Postpartum Women	406,991	71.1	213,196	37.2	341,973	59.7	227,809	39.8	68,433	11.9	540	0.1	572,717	100.0
Younger than 15	405	56.3	299	41.5	696	96.7	272	37.8	208	28.9	3	0.4	720	100.0
15–17	10,504	58.5	7,385	41.1	16,677	92.8	6,859	38.2	4,323	24.1	20	0.1	17,965	100.0
18–34	352,669	71.0	185,486	37.3	288,128	58.0	197,988	39.8	58,034	11.7	479	0.1	497,025	100.0
35 or older	43,336	76.2	20,003	35.2	36,419	64.0	22,656	39.8	5,831	10.2	35	0.1	56,893	100.0
Age not reported	77	67.5	23	20.2	53	46.5	34	29.8	37	32.5	3	2.6	114	100.0
Total Women	1,531,786	74.4	508,435	24.7	1,133,984	55.1	822,783	40.0	484,040	23.5	1,255	0.1	2,058,429	100.0
Younger than 15	1,681	65.3	678	26.3	2,478	96.2	964	37.4	958	37.2	4	0.2	2,576	100.0
15–17	38,559	66.3	15,351	26.4	53,887	92.7	22,099	38.0	17,906	30.8	32	0.1	58,136	100.0
18–34	1,302,300	74.1	433,601	24.7	935,951	53.3	702,657	40.0	403,932	23.0	1,110	0.1	1,756,912	100.0
35 or older	188,969	78.6	58,740	24.4	141,459	58.8	96,927	40.3	61,092	25.4	96	< 0.1	240,430	100.0
Age not reported	277	73.9	65	17.3	209	55.7	136	36.3	152	40.5	13	3.5	375	100.0

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Other risks include regression/transfer (nutritional risk unknown)/presumptive eligibility, breastfeeding mother and infant dyad, infant of a WIC-eligible mother or mother at risk during pregnancy, and homelessness/migrancy.

Table 4.5. Distribution of Infant and Child Participants With Broad Risk Category Reported by Participant Category and Age at Certification

Participant Category and Age at Certification	Anthropometric		Biochemical		Clinical, Health, and Medical		Dietary		Other Risks[a]		No Risk Reported		Total Infants and Children	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Infants[b]	932,297	45.3	18,247	0.9	111,470	5.4	710,099	34.5	1,723,638	83.8	3,875	0.2	2,056,848	100.0
0–3 months	844,992	45.2	7,867	0.4	95,545	5.1	617,193	33.0	1,613,831	86.4	3,172	0.2	1,867,644	100.0
4–5 months	28,488	44.9	456	0.7	5,996	9.4	25,318	39.9	46,536	73.3	197	0.3	63,493	100.0
6–8 months	40,579	46.0	2,385	2.7	7,359	8.3	46,553	52.8	49,468	56.1	298	0.3	88,192	100.0
9–11 months	18,190	48.7	7,537	20.2	2,564	6.9	20,997	56.2	13,689	36.6	190	0.5	37,377	100.0
Age not reported	48	33.8	2	1.4	6	4.2	38	26.8	114	80.3	18	12.7	142	100.0
Children	2,106,646	44.8	616,688	13.1	434,160	9.2	3,489,721	74.2	327,632	7.0	9,230	0.2	4,700,195	100.0
1 year	735,675	42.0	300,202	17.2	134,127	7.7	1,291,789	73.8	129,491	7.4	5,708	0.3	1,750,232	100.0
2 years	546,509	44.9	160,687	13.2	110,263	9.1	920,148	75.6	83,259	6.8	1,526	0.1	1,216,453	100.0
3 years	508,790	47.3	108,790	10.1	113,794	10.6	794,843	73.8	73,254	6.8	1,216	0.1	1,076,686	100.0
4 years	315,541	48.1	46,964	7.2	75,945	11.6	482,729	73.5	41,558	6.3	766	0.1	656,491	100.0
Age not reported	131	39.3	45	13.5	31	9.3	212	63.7	70	21.0	14	4.2	333	100.0

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Other risks include regression/transfer (nutritional risk unknown)/presumptive eligibility, breastfeeding mother and infant dyad, infant of a WIC-eligible mother or mother at risk during pregnancy, and homelessness/migrancy.

[b] WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

Table 4.6. Distribution of Women Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women	
	Number	%	Number	%	Number	%	Number	%
Total Women	800,665	–	685,047	–	572,717	–	2,058,429	–
Anthropometric	652,883	81.5	471,912	68.9	406,991	71.1	1,531,786	74.4
Low weight-for-height	30,561	3.8	20,300	3.0	20,523	3.6	71,384	3.5
High weight-for-height/length	464,621	58.0	379,109	55.3	322,464	56.3	1,166,194	56.7
Short stature	1,821	0.2	1,722	0.3	1,253	0.2	4,796	0.2
Inappropriate growth or weight gain pattern	464,311	58.0	249,673	36.4	213,443	37.3	927,427	45.1
Other anthropometric risk	10	< 0.1	9	< 0.1	14	< 0.1	33	< 0.1
Biochemical	81,124	10.1	214,115	31.3	213,196	37.2	508,435	24.7
Hematocrit or hemoglobin below FNS criteria	81,072	10.1	214,074	31.2	213,162	37.2	508,308	24.7
Other biochemical test results that indicate nutritional abnormality	63	< 0.1	75	< 0.1	49	< 0.1	187	< 0.1
Clinical, Health, and Medical	436,758	54.5	355,253	51.9	341,973	59.7	1,133,984	55.1
Pregnancy-induced conditions	62,621	7.8	56,032	8.2	45,517	7.9	164,170	8.0
Delivery of low-birthweight or premature infant	53,736	6.7	71,858	10.5	70,331	12.3	195,925	9.5
Prior stillbirth, fetal, or neonatal death	46,007	5.7	6,296	0.9	15,690	2.7	67,993	3.3
General obstetrical risks	247,109	30.9	153,444	22.4	141,835	24.8	542,388	26.3
Nutrition-related risk conditions	103,825	13.0	166,842	24.4	149,522	26.1	420,189	20.4
Substance abuse	98,154	12.3	26,787	3.9	73,680	12.9	198,621	9.6
Other health risks	28,650	3.6	16,352	2.4	15,664	2.7	60,666	2.9
Dietary	337,122	42.1	257,852	37.6	227,809	39.8	822,783	40.0
Failure to meet Dietary Guidelines for Americans	64,050	8.0	49,528	7.2	43,368	7.6	156,946	7.6
Inappropriate nutrition practices	277,587	34.7	210,736	30.8	186,851	32.6	675,174	32.8
Other Risks	82,124	10.3	333,483	48.7	68,433	11.9	484,040	23.5
Regression/Transfer/Presumptive eligibility	9,418	1.2	5,875	0.9	6,143	1.1	21,436	1.0
Breastfeeding mother and infant dyad	5,939	0.7	320,094	46.7	28,295	4.9	354,328	17.2
Homelessness/Migrancy	5,074	0.6	3,302	0.5	2,761	0.5	11,137	0.5
Other nutritional risks	65,253	8.1	16,564	2.4	33,753	5.9	115,570	5.6
No Risk Reported	321	< 0.1	394	0.1	540	0.1	1,255	0.1

Note

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

Table 4.7. Distribution of Age of Infant Participants at Certification by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	0–3 Months		4–5 Months		6–8 Months		9–11 Months		Age Not Reported		Total Infants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Infants	1,867,644	–	63,493	–	88,192	–	37,377	–	142	–	2,056,848	–
Anthropometric	844,992	45.2	28,488	44.9	40,579	46.0	18,190	48.7	48	33.8	932,297	45.3
Low weight-for-height	161,641	8.7	2,326	3.7	2,292	2.6	612	1.6	6	4.2	166,877	8.1
High weight-for-height/length[a]	330,446	17.7	13,047	20.5	19,182	21.8	9,060	24.2	21	14.8	371,756	18.1
Short stature	200,577	10.7	6,872	10.8	8,374	9.5	3,600	9.6	11	7.7	219,434	10.7
Inappropriate growth or weight gain pattern	44,891	2.4	2,271	3.6	3,828	4.3	2,319	6.2	5	3.5	53,314	2.6
Low birth weight or premature birth	307,736	16.5	11,407	18.0	14,836	16.8	6,051	16.2	16	11.3	340,046	16.5
Other anthropometric risk	108,904	5.8	3,423	5.4	5,072	5.8	2,142	5.7	7	4.9	119,548	5.8
Biochemical	7,867	0.4	456	0.7	2,385	2.7	7,537	20.2	2	1.4	18,247	0.9
Hematocrit or hemoglobin below FNS criteria[b]	7,843	0.4	454	0.7	2,382	2.7	7,529	20.1	2	1.4	18,210	0.9
Other biochemical test results that indicate nutritional abnormality	29	< 0.1	3	< 0.1	3	< 0.1	14	< 0.1	0	0.0	49	< 0.1
Clinical, Health, and Medical	95,545	5.1	5,996	9.4	7,359	8.3	2,564	6.9	6	4.2	111,470	5.4
Nutrition-related risk conditions	86,421	4.6	5,622	8.9	6,885	7.8	2,483	6.6	6	4.2	101,417	4.9
Substance abuse[c]	7,307	0.4	390	0.6	410	0.5	57	0.2	0	0.0	8,164	0.4
Other health risks	9,140	0.5	251	0.4	302	0.3	64	0.2	0	0.0	9,757	0.5
Dietary	617,193	33.0	25,318	39.9	46,553	52.8	20,997	56.2	38	26.8	710,099	34.5
Failure to meet Dietary Guidelines for Americans	539	< 0.1	98	0.2	316	0.4	41	0.1	0	0.0	994	< 0.1
Inappropriate nutrition practices	616,938	33.0	25,226	39.7	46,251	52.4	20,957	56.1	38	26.8	709,410	34.5
Other Risks	1,613,831	86.4	46,536	73.3	49,468	56.1	13,689	36.6	114	80.3	1,723,638	83.8
Regression/Transfer/Presumptive eligibility	18,929	1.0	3,917	6.2	4,965	5.6	1,563	4.2	23	16.2	29,397	1.4
Breastfeeding mother and infant dyad	131,114	7.0	1,517	2.4	1,981	2.2	463	1.2	6	4.2	135,081	6.6
Infant of a WIC-eligible mother or mother at risk during pregnancy	1,547,448	82.9	40,478	63.8	40,473	45.9	10,183	27.2	92	64.8	1,638,674	79.7
Homelessness/Migrancy	8,076	0.4	307	0.5	258	0.3	233	0.6	1	0.7	8,875	0.4
Other nutritional risks	84,852	4.5	4,621	7.3	7,658	8.7	2,827	7.6	0	0.0	99,958	4.9
No Risk Reported	3,+172	0.2	197	0.3	298	0.3	190	0.5	18	12.7	3,875	0.2

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Since 2014, for infants, this risk has reflected infant length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] WIC regulations permit State and local agencies to dispense with hematological testing for infants younger than 9 months as well as for children whose test results are found to be within normal ranges at the last certification. However, blood tests should be performed on such children at least once in every 12-month period.

[c] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.8. Distribution of Age of Child Participants at Certification by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	1 Year		2 Years		3 Years		4 Years		Age Not Reported		Total Children	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Children	1,750,232	–	1,216,453	–	1,076,686	–	656,491	–	333	–	4,700,195	–
Anthropometric	735,675	42.0	546,509	44.9	508,790	47.3	315,541	48.1	131	39.3	2,106,646	44.8
Low weight-for-height	27,459	1.6	83,486	6.9	78,226	7.3	42,918	6.5	15	4.5	232,104	4.9
High weight-for-height/length[a]	347,661	19.9	370,346	30.4	356,531	33.1	230,065	35.0	79	23.7	1,304,682	27.8
Short stature	172,750	9.9	109,032	9.0	80,336	7.5	43,176	6.6	28	8.4	405,322	8.6
Inappropriate growth or weight gain pattern	99,853	5.7	41,501	3.4	50,244	4.7	31,001	4.7	12	3.6	222,611	4.7
Low birth weight or premature birth	238,153	13.6	10,342	0.9	2,291	0.2	1,068	0.2	18	5.4	251,872	5.4
Other anthropometric risk	9,047	0.5	486	< 0.1	38	< 0.1	22	< 0.1	4	1.2	9,597	0.2
Biochemical	300,202	17.2	160,687	13.2	108,790	10.1	46,964	7.2	45	13.5	616,688	13.1
Hematocrit or hemoglobin below FNS criteria[b]	298,999	17.1	159,367	13.1	107,846	10.0	46,567	7.1	45	13.5	612,824	13.0
Other biochemical test results that indicate nutritional abnormality	1,535	0.1	1,593	0.1	1,117	0.1	446	0.1	0	0.0	4,691	0.1
Clinical, Health, and Medical	134,127	7.7	110,263	9.1	113,794	10.6	75,945	11.6	31	9.3	434,160	9.2
Nutrition-related risk conditions	123,108	7.0	90,550	7.4	82,159	7.6	49,249	7.5	29	8.7	345,095	7.3
Substance abuse[c]	5,882	0.3	4,632	0.4	3,890	0.4	2,706	0.4	0	0.0	17,110	0.4
Other health risks	10,715	0.6	20,768	1.7	34,559	3.2	28,847	4.4	3	0.9	94,892	2.0
Dietary	1,291,789	73.8	920,148	75.6	794,843	73.8	482,729	73.5	212	63.7	3,489,721	74.2
Failure to meet Dietary Guidelines for Americans	38,409	2.2	207,607	17.1	212,242	19.7	137,585	21.0	30	9.0	595,873	12.7
Inappropriate nutrition practices	1,256,141	71.8	728,948	59.9	597,891	55.5	353,858	53.9	184	55.3	2,937,022	62.5
Other Risks	129,491	7.4	83,259	6.8	73,254	6.8	41,558	6.3	70	21.0	327,632	7.0
Regression/Transfer/Presumptive eligibility	26,218	1.5	19,032	1.6	17,252	1.6	9,864	1.5	29	8.7	72,395	1.5
Breastfeeding mother and infant dyad	5,182	0.3	3,130	0.3	2,711	0.3	1,684	0.3	3	0.9	12,710	0.3
Infant of a WIC-eligible mother or mother at risk during pregnancy	20,230	1.2	7,394	0.6	6,200	0.6	4,012	0.6	20	6.0	37,856	0.8

Broad Risk Category and Specific Nutritional Risk	1 Year		2 Years		3 Years		4 Years		Age Not Reported		Total Children	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Homelessness/Migrancy	8,126	0.5	5,751	0.5	5,288	0.5	2,934	0.4	4	1.2	22,103	0.5
Other nutritional risks	80,039	4.6	54,555	4.5	47,855	4.4	26,670	4.1	21	6.3	209,140	4.4
No Risk Reported	5,708	0.3	1,526	0.1	1,216	0.1	766	0.1	14	4.2	9,230	0.2

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Since 2014, for 1-year-old children, this risk has reflected child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] WIC regulations permit State and local agencies to dispense with hematological testing for infants younger than 9 months as well as for children whose test results are found to be within normal ranges at the last certification. However, blood tests should be performed on such children at least once in every 12-month period.

[c] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.9. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Participants by Participant Category: 2012, 2014, 2016

Participant Category and Specific Nutritional Risk	2012	2014	2016
Pregnant Women *(N)*	983,192	896,551	800,665
General obstetrical risks	30.4	31.0	30.9
Inappropriate growth or weight gain pattern	50.3	54.9	58.0
Inappropriate nutrition practices	35.8	35.5	34.7
Prepregnancy high weight-for-height	53.8	55.6	58.0
Breastfeeding Women *(N)*	665,526	687,351	685,047
Breastfeeding mother and infant dyad	46.3	48.3	46.7
General obstetrical risks	22.9	22.1	22.4
Hematocrit or hemoglobin below FNS criteria	32.8	30.8	31.2
High weight-for-height	53.3	54.4	55.3
Inappropriate growth or weight gain pattern	35.0	35.7	36.4
Inappropriate nutrition practices	28.1	30.4	30.8
Nutrition-related risk conditions	20.5	22.8	24.4
Postpartum Women *(N)*	651,347	615,559	572,717
General obstetrical risks	25.0	24.0	24.8
Hematocrit or hemoglobin below FNS criteria	37.1	35.8	37.2
High weight-for-height	52.8	54.8	56.3
Inappropriate growth or weight gain pattern	34.8	35.3	37.3
Inappropriate nutrition practices	32.2	32.9	32.6
Nutrition-related risk conditions	23.5	25.5	26.1
Infants *(N)*	2,240,045	2,141,988	2,056,848
High weight-for-height/length[a]	6.6	15.0	18.1
Low birth weight or premature birth	14.5	14.7	16.5
Inappropriate nutrition practices	31.0	33.4	34.5
Infant of a WIC-eligible mother or mother at risk during pregnancy	82.0	81.6	79.7
Children *(N)*	5,194,358	4,961,804	4,700,195
High weight-for-height/length[a]	23.7	27.1	27.8
Failure to meet Dietary Guidelines for Americans	13.0	15.1	12.7
Inappropriate nutrition practices	65.4	62.4	62.5

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.10. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Pregnant Women Participants by Age at Certification

Age at Certification and Specific Nutritional Risk	Percent
Total Pregnant Women *(N)*	800,665
Younger Than 15 *(N)*	1,402
General obstetrical risks	96.1
Inappropriate growth or weight gain pattern	56.9
Inappropriate nutrition practices	34.8
Other nutritional risks	34.5
Prepregnancy high weight-for-height	30.0
15–17 *(N)*	28,238
General obstetrical risks	91.3
Inappropriate growth or weight gain pattern	58.2
Inappropriate nutrition practices	34.3
Other nutritional risks	25.8
Prepregnancy high weight-for-height	36.0
18–34 *(N)*	684,526
General obstetrical risks	28.6
Inappropriate growth or weight gain pattern	58.1
Inappropriate nutrition practices	34.4
Prepregnancy high weight-for-height	57.5
35 or Older *(N)*	86,378
General obstetrical risks	27.9
Inappropriate growth or weight gain pattern	56.9
Inappropriate nutrition practices	36.8
Nutrition-related risk conditions	17.6
Prepregnancy high weight-for-height	70.1
Not Reported *(N)*	121

Table 4.11. Distribution of American Indian or Alaska Native-Only Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total American Indian or Alaska Native-Only Participants	83,909	–	72,623	–	46,473	–	203,005	–	170,130		533,563	–	906,698	–
Anthropometric	68,189	81.3	46,367	63.8	30,358	65.3	144,914	71.4	62,197	36.6	240,274	45.0	447,385	49.3
Low weight-for-height	2,225	2.7	1,192	1.6	979	2.1	4,396	2.2	10,038	5.9	26,178	4.9	40,612	4.5
High weight-for-height/length[a]	49,398	58.9	41,245	56.8	26,298	56.6	116,941	57.6	25,974	15.3	170,058	31.9	312,973	34.5
Short stature	13	< 0.1	33	< 0.1	18	< 0.1	64	< 0.1	13,725	8.1	47,997	9.0	61,786	6.8
Inappropriate growth or weight gain pattern	51,730	61.7	18,029	24.8	11,941	25.7	81,700	40.2	2,697	1.6	8,678	1.6	93,075	10.3
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	19,210	11.3	9,333	1.7	28,543	3.1
Other anthropometric risk	0	0.0	0	0.0	1	< 0.1	1	< 0.1	10,664	6.3	613	0.1	11,278	1.2
Biochemical	5,218	6.2	19,795	27.3	13,282	28.6	38,295	18.9	1,670	1.0	43,623	8.2	83,588	9.2
Hematocrit or hemoglobin below FNS criteria	5,214	6.2	19,793	27.3	13,281	28.6	38,288	18.9	1,670	1.0	43,544	8.2	83,502	9.2
Other biochemical test results that indicate nutritional abnormality	4	< 0.1	5	< 0.1	2	< 0.1	11	< 0.1	1	< 0.1	103	< 0.1	115	< 0.1
Clinical, Health, and Medical	40,105	47.8	29,195	40.2	22,271	47.9	91,571	45.1	7,976	4.7	46,188	8.7	145,735	16.1
Pregnancy-induced conditions	7,174	8.5	5,605	7.7	3,310	7.1	16,089	7.9	0	0.0	0	0.0	16,089	1.8
Delivery of low-birthweight or premature infant	1,678	2.0	3,001	4.1	2,289	4.9	6,968	3.4	0	0.0	0	0.0	6,968	0.8
Prior stillbirth, fetal, or neonatal death	2,875	3.4	910	1.3	1,309	2.8	5,094	2.5	0	0.0	0	0.0	5,094	0.6
General obstetrical risks	24,988	29.8	14,047	19.3	11,088	23.9	50,123	24.7	0	0.0	0	0.0	50,123	5.5
Nutrition-related risk conditions	7,610	9.1	10,864	15.0	8,677	18.7	27,151	13.4	7,668	4.5	31,337	5.9	66,156	7.3
Substance abuse[b]	7,388	8.8	898	1.2	1,942	4.2	10,228	5.0	114	0.1	51	< 0.1	10,393	1.1
Other health risks	1,073	1.3	610	0.8	417	0.9	2,100	1.0	361	0.2	16,004	3.0	18,465	2.0

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dietary	59,864	71.3	49,780	68.5	31,432	67.6	141,076	69.5	69,483	40.8	455,063	85.3	665,622	73.4
Failure to meet Dietary Guidelines for Americans	8,408	10.0	7,337	10.1	5,028	10.8	20,773	10.2	3	< 0.1	51,061	9.6	71,837	7.9
Inappropriate nutrition practices	52,498	62.6	43,094	59.3	26,842	57.8	122,434	60.3	69,481	40.8	414,959	77.8	606,874	66.9
Other Risks	5,069	6.0	53,546	73.7	3,073	6.6	61,688	30.4	153,939	90.5	24,247	4.5	239,874	26.5
Regression/Transfer/Presumptive eligibility	1,647	2.0	486	0.7	342	0.7	2,475	1.2	1,802	1.1	6,870	1.3	11,147	1.2
Breastfeeding mother and infant dyad	89	0.1	52,696	72.6	1,122	2.4	53,907	26.6	3,520	2.1	184	< 0.1	57,611	6.4
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	150,755	88.6	531	0.1	151,286	16.7
Homelessness/Migrancy	468	0.6	299	0.4	235	0.5	1,002	0.5	479	0.3	1,423	0.3	2,904	0.3
Other nutritional risks	3,027	3.6	1,010	1.4	1,430	3.1	5,467	2.7	3,867	2.3	15,645	2.9	24,979	2.8
No Risk Reported	70	0.1	66	0.1	40	0.1	176	0.1	91	0.1	310	0.1	577	0.1

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons having origins in any of the original peoples of North America who maintain cultural identification through Tribal affiliation or community recognition (includes Aleuts and Eskimos).

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.12. Distribution of Asian-Only Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Asian-Only Participants	29,203	–	31,751	–	17,411	–	78,365	–	68,222	–	171,017	–	317,604	–
Anthropometric	20,442	70.0	15,513	48.9	8,428	48.4	44,383	56.6	25,048	36.7	67,925	39.7	137,356	43.2
Low weight-for-height	2,571	8.8	2,148	6.8	1,071	6.2	5,790	7.4	6,637	9.7	14,392	8.4	26,819	8.4
High weight-for-height/length[a]	9,050	31.0	9,808	30.9	5,366	30.8	24,224	30.9	6,932	10.2	31,694	18.5	62,850	19.8
Short stature	42	0.1	99	0.3	24	0.1	165	0.2	5,794	8.5	18,028	10.5	23,987	7.6
Inappropriate growth or weight gain pattern	15,364	52.6	7,670	24.2	4,177	24.0	27,211	34.7	1,158	1.7	7,615	4.5	35,984	11.3
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	9,282	13.6	6,447	3.8	15,729	5.0
Other anthropometric risk	1	< 0.1	1	< 0.1	1	< 0.1	3	< 0.1	2,579	3.8	238	0.1	2,820	0.9
Biochemical	2,324	8.0	9,655	30.4	5,856	33.6	17,835	22.8	636	0.9	18,895	11.0	37,366	11.8
Hematocrit or hemoglobin below FNS criteria	2,321	7.9	9,652	30.4	5,854	33.6	17,827	22.7	635	0.9	18,746	11.0	37,208	11.7
Other biochemical test results that indicate nutritional abnormality	4	< 0.1	4	< 0.1	2	< 0.1	10	< 0.1	3	< 0.1	197	0.1	210	0.1
Clinical, Health, and Medical	13,392	45.9	14,375	45.3	8,533	49.0	36,300	46.3	1,855	2.7	18,662	10.9	56,817	17.9
Pregnancy-induced conditions	2,526	8.6	2,919	9.2	1,600	9.2	7,045	9.0	0	0.0	0	0.0	7,045	2.2
Delivery of low-birthweight or premature infant	1,010	3.5	2,889	9.1	1,570	9.0	5,469	7.0	0	0.0	0	0.0	5,469	1.7
Prior stillbirth, fetal, or neonatal death	866	3.0	125	0.4	332	1.9	1,323	1.7	0	0.0	0	0.0	1,323	0.4
General obstetrical risks	7,796	26.7	5,668	17.9	3,798	21.8	17,262	22.0	0	0.0	0	0.0	17,262	5.4
Nutrition-related risk conditions	3,339	11.4	6,260	19.7	3,416	19.6	13,015	16.6	1,627	2.4	14,704	8.6	29,346	9.2
Substance abuse[b]	902	3.1	279	0.9	329	1.9	1,510	1.9	199	0.3	479	0.3	2,188	0.7
Other health risks	758	2.6	567	1.8	228	1.3	1,553	2.0	232	0.3	4,488	2.6	6,273	2.0
Dietary	17,656	60.5	16,763	52.8	10,512	60.4	44,931	57.3	23,304	34.2	142,214	83.2	210,449	66.3
Failure to meet Dietary Guidelines for Americans	3,320	11.4	2,797	8.8	2,386	13.7	8,503	10.9	21	< 0.1	20,979	12.3	29,503	9.3
Inappropriate nutrition practices	14,515	49.7	14,089	44.4	8,215	47.2	36,819	47.0	23,292	34.1	122,727	71.8	182,838	57.6

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	1,494	5.1	16,946	53.4	1,231	7.1	19,671	25.1	57,401	84.1	6,014	3.5	83,086	26.2
Regression/Transfer/Presumptive eligibility	331	1.1	247	0.8	136	0.8	714	0.9	674	1.0	1,757	1.0	3,145	1.0
Breastfeeding mother and infant dyad	176	0.6	16,504	52.0	667	3.8	17,347	22.1	3,506	5.1	361	0.2	21,214	6.7
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	55,718	81.7	1,212	0.7	56,930	17.9
Homelessness/Migrancy	85	0.3	90	0.3	39	0.2	214	0.3	151	0.2	373	0.2	738	0.2
Other nutritional risks	991	3.4	612	1.9	431	2.5	2,034	2.6	1,455	2.1	3,041	1.8	6,530	2.1
No Risk Reported	10	< 0.1	11	< 0.1	13	0.1	34	< 0.1	64	0.1	366	0.2	464	0.1

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent. This area includes Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.13. Distribution of Black or African American-Only Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Black or African American-Only Participants	161,859	–	124,781	–	145,854	–	432,494	–	467,517	–	929,363	–	1,829,374	–
Anthropometric	134,879	83.3	91,731	73.5	107,787	73.9	334,397	77.3	232,776	49.8	417,088	44.9	984,261	53.8
Low weight-for-height	5,915	3.7	3,814	3.1	5,364	3.7	15,093	3.5	48,707	10.4	60,061	6.5	123,861	6.8
High weight-for-height/length[a]	100,604	62.2	74,713	59.9	86,666	59.4	261,983	60.6	85,895	18.4	239,859	25.8	587,737	32.1
Short stature	430	0.3	398	0.3	312	0.2	1,140	0.3	62,290	13.3	66,037	7.1	129,467	7.1
Inappropriate growth or weight gain pattern	91,019	56.2	49,502	39.7	56,439	38.7	196,960	45.5	10,810	2.3	52,355	5.6	260,125	14.2
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	98,311	21.0	71,109	7.7	169,420	9.3
Other anthropometric risk	1	< 0.1	4	< 0.1	2	< 0.1	7	< 0.1	24,293	5.2	2,556	0.3	26,856	1.5
Biochemical	32,834	20.3	54,683	43.8	75,359	51.7	162,876	37.7	5,016	1.1	197,591	21.3	365,483	20.0
Hematocrit or hemoglobin below FNS criteria	32,825	20.3	54,679	43.8	75,354	51.7	162,858	37.7	5,008	1.1	196,455	21.1	364,321	19.9
Other biochemical test results that indicate nutritional abnormality	12	< 0.1	13	< 0.1	6	< 0.1	31	< 0.1	9	< 0.1	1,462	0.2	1,502	0.1
Clinical, Health, and Medical	84,741	52.4	68,085	54.6	86,431	59.3	239,257	55.3	21,279	4.6	85,511	9.2	346,047	18.9
Pregnancy-induced conditions	10,722	6.6	9,388	7.5	10,005	6.9	30,115	7.0	0	0.0	0	0.0	30,115	1.6
Delivery of low-birthweight or premature infant	13,961	8.6	18,627	14.9	23,931	16.4	56,519	13.1	0	0.0	0	0.0	56,519	3.1
Prior stillbirth, fetal, or neonatal death	9,781	6.0	1,078	0.9	3,039	2.1	13,898	3.2	0	0.0	0	0.0	13,898	0.8
General obstetrical risks	47,764	29.5	27,254	21.8	35,657	24.4	110,675	25.6	0	0.0	0	0.0	110,675	6.0
Nutrition-related risk conditions	21,729	13.4	34,922	28.0	39,315	27.0	95,966	22.2	19,163	4.1	74,776	8.0	189,905	10.4
Substance abuse[b]	12,749	7.9	3,154	2.5	11,922	8.2	27,825	6.4	1,987	0.4	3,874	0.4	33,686	1.8
Other health risks	4,943	3.1	2,725	2.2	2,746	1.9	10,414	2.4	2,038	0.4	11,189	1.2	23,641	1.3

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dietary	58,067	35.9	37,694	30.2	49,341	33.8	145,102	33.6	151,065	32.3	649,160	69.8	945,327	51.7
Failure to meet Dietary Guidelines for Americans	10,519	6.5	6,985	5.6	8,396	5.8	25,900	6.0	203	< 0.1	114,113	12.3	140,216	7.7
Inappropriate nutrition practices	48,096	29.7	30,958	24.8	41,401	28.4	120,455	27.9	150,931	32.3	540,455	58.2	811,841	44.4
Other Risks	16,910	10.4	54,345	43.6	14,686	10.1	85,941	19.9	372,579	79.7	66,925	7.2	525,445	28.7
Regression/Transfer/Presumptive eligibility	1,341	0.8	897	0.7	1,325	0.9	3,563	0.8	5,760	1.2	12,923	1.4	22,246	1.2
Breastfeeding mother and infant dyad	1,460	0.9	52,004	41.7	5,132	3.5	58,596	13.5	28,160	6.0	2,509	0.3	89,265	4.9
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	352,724	75.4	8,669	0.9	361,393	19.8
Homelessness/Migrancy	845	0.5	560	0.4	555	0.4	1,960	0.5	1,607	0.3	3,338	0.4	6,905	0.4
Other nutritional risks	14,014	8.7	3,084	2.5	8,167	5.6	25,265	5.8	22,279	4.8	44,660	4.8	92,204	5.0
No Risk Reported	89	0.1	100	0.1	164	0.1	353	0.1	957	0.2	2,512	0.3	3,822	0.2

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons having origins in any of the Black racial classification groups of Africa.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.14. Distribution of Native Hawaiian or Other Pacific Islander-Only Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Native Hawaiian or Other Pacific Islander-Only Participants	6,217	–	6,384	–	4,430	–	17,031	–	15,260	–	37,591	–	69,882	–
Anthropometric	5,212	83.8	4,744	74.3	3,250	73.4	13,206	77.5	7,669	50.3	17,429	46.4	38,304	54.8
Low weight-for-height	171	2.8	172	2.7	97	2.2	440	2.6	1,130	7.4	1,755	4.7	3,325	4.8
High weight-for-height/length[a]	3,978	64.0	3,961	62.0	2,698	60.9	10,637	62.5	3,956	25.9	11,116	29.6	25,709	36.8
Short stature	22	0.4	24	0.4	15	0.3	61	0.4	1,368	9.0	2,849	7.6	4,278	6.1
Inappropriate growth or weight gain pattern	3,638	58.5	2,622	41.1	1,799	40.6	8,059	47.3	499	3.3	2,377	6.3	10,935	15.6
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	2,186	14.3	1,671	4.4	3,857	5.5
Other anthropometric risk	0	0.0	0	0.0	0	0.0	0	0.0	1,106	7.2	125	0.3	1,231	1.8
Biochemical	679	10.9	1,899	29.7	1,500	33.9	4,078	23.9	135	0.9	4,423	11.8	8,636	12.4
Hematocrit or hemoglobin below FNS criteria	679	10.9	1,899	29.7	1,500	33.9	4,078	23.9	135	0.9	4,405	11.7	8,618	12.3
Other biochemical test results that indicate nutritional abnormality	1	< 0.1	1	< 0.1	0	0.0	2	< 0.1	0	0.0	20	0.1	22	< 0.1
Clinical, Health, and Medical	3,208	51.6	2,629	41.2	2,293	51.8	8,130	47.7	637	4.2	3,347	8.9	12,114	17.3
Pregnancy-induced conditions	510	8.2	427	6.7	335	7.6	1,272	7.5	0	0.0	0	0.0	1,272	1.8
Delivery of low-birthweight or premature infant	260	4.2	543	8.5	463	10.5	1,266	7.4	0	0.0	0	0.0	1,266	1.8
Prior stillbirth, fetal, or neonatal death	280	4.5	55	0.9	133	3.0	468	2.7	0	0.0	0	0.0	468	0.7
General obstetrical risks	2,117	34.1	1,191	18.7	1,085	24.5	4,393	25.8	0	0.0	0	0.0	4,393	6.3
Nutrition-related risk conditions	680	10.9	1,108	17.4	918	20.7	2,706	15.9	553	3.6	2,511	6.7	5,770	8.3
Substance abuse[b]	383	6.2	137	2.1	267	6.0	787	4.6	100	0.7	266	0.7	1,153	1.6
Other health risks	204	3.3	145	2.3	102	2.3	451	2.6	92	0.6	836	2.2	1,379	2.0

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dietary	2,841	45.7	2,495	39.1	1,849	41.7	7,185	42.2	4,711	30.9	30,209	80.4	42,105	60.3
Failure to meet Dietary Guidelines for Americans	568	9.1	536	8.4	439	9.9	1,543	9.1	8	0.1	5,488	14.6	7,039	10.1
Inappropriate nutrition practices	2,322	37.3	1,993	31.2	1,434	32.4	5,749	33.8	4,707	30.8	25,210	67.1	35,666	51.0
Other Risks	567	9.1	3,454	54.1	449	10.1	4,470	26.2	12,964	85.0	2,252	6.0	19,686	28.2
Regression/Transfer/Presumptive eligibility	133	2.1	58	0.9	74	1.7	265	1.6	275	1.8	507	1.3	1,047	1.5
Breastfeeding mother and infant dyad	78	1.3	3,351	52.5	202	4.6	3,631	21.3	435	2.9	169	0.4	4,235	6.1
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	12,556	82.3	495	1.3	13,051	18.7
Homelessness/Migrancy	52	0.8	47	0.7	32	0.7	131	0.8	93	0.6	180	0.5	404	0.6
Other nutritional risks	356	5.7	192	3.0	159	3.6	707	4.2	591	3.9	1,196	3.2	2,494	3.6
No Risk Reported	1	< 0.1	2	< 0.1	7	0.2	10	0.1	38	0.2	72	0.2	120	0.2

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.15. Distribution of White-Only Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total White-Only Participants	492,947	–	426,158	–	340,106	–	1,259,211	–	1,196,174	–	2,712,805	–	5,168,190	–
Anthropometric	402,682	81.7	298,040	69.9	244,826	72.0	945,548	75.1	543,697	45.5	1,225,706	45.2	2,714,951	52.5
Low weight-for-height	18,742	3.8	12,373	2.9	12,488	3.7	43,603	3.5	90,715	7.6	114,115	4.2	248,433	4.8
High weight-for-height/length[a]	286,653	58.2	237,005	55.6	191,716	56.4	715,374	56.8	224,064	18.7	765,636	28.2	1,705,074	33.0
Short stature	1,159	0.2	1,037	0.2	817	0.2	3,013	0.2	121,348	10.1	243,998	9.0	368,359	7.1
Inappropriate growth or weight gain pattern	286,080	58.0	163,457	38.4	132,374	38.9	581,911	46.2	34,301	2.9	136,963	5.0	753,175	14.6
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	189,479	15.8	147,709	5.4	337,188	6.5
Other anthropometric risk	6	< 0.1	2	< 0.1	4	< 0.1	12	< 0.1	72,972	6.1	5,450	0.2	78,434	1.5
Biochemical	37,696	7.6	121,408	28.5	111,213	32.7	270,317	21.5	9,467	0.8	313,186	11.5	592,970	11.5
Hematocrit or hemoglobin below FNS criteria	37,662	7.6	121,377	28.5	111,189	32.7	270,228	21.5	9,440	0.8	310,966	11.5	590,634	11.4
Other biochemical test results that indicate nutritional abnormality	39	< 0.1	48	< 0.1	37	< 0.1	124	< 0.1	35	< 0.1	2,591	0.1	2,750	0.1
Clinical, Health, and Medical	279,831	56.8	229,705	53.9	211,770	62.3	721,306	57.3	71,076	5.9	248,626	9.2	1,041,008	20.1
Pregnancy-induced conditions	39,449	8.0	35,869	8.4	28,888	8.5	104,206	8.3	0	0.0	0	0.0	104,206	2.0
Delivery of low-birthweight or premature infant	35,310	7.2	44,924	10.5	40,286	11.8	120,520	9.6	0	0.0	0	0.0	120,520	2.3
Prior stillbirth, fetal, or neonatal death	30,696	6.2	3,900	0.9	10,400	3.1	44,996	3.6	0	0.0	0	0.0	44,996	0.9
General obstetrical risks	155,640	31.6	100,071	23.5	85,163	25.0	340,874	27.1	0	0.0	0	0.0	340,874	6.6
Nutrition-related risk conditions	66,635	13.5	108,890	25.6	92,921	27.3	268,446	21.3	64,716	5.4	196,497	7.2	529,659	10.2
Substance abuse[b]	72,175	14.6	21,085	4.9	56,453	16.6	149,713	11.9	5,035	0.4	11,064	0.4	165,812	3.2
Other health risks	20,778	4.2	11,778	2.8	11,684	3.4	44,240	3.5	6,112	0.5	55,286	2.0	105,638	2.0
Dietary	185,386	37.6	140,027	32.9	126,025	37.1	451,438	35.9	413,365	34.6	1,965,168	72.4	2,829,971	54.8
Failure to meet Dietary Guidelines for Americans	39,022	7.9	29,715	7.0	25,467	7.5	94,204	7.5	658	0.1	367,333	13.5	462,195	8.9
Inappropriate nutrition practices	148,883	30.2	111,541	26.2	101,871	30.0	362,295	28.8	412,892	34.5	1,619,449	59.7	2,394,636	46.3

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	54,487	11.1	190,506	44.7	46,131	13.6	291,124	23.1	1,007,245	84.2	199,685	7.4	1,498,054	29.0
Regression/Transfer/Presumptive eligibility	5,070	1.0	3,378	0.8	3,289	1.0	11,737	0.9	15,314	1.3	42,296	1.6	69,347	1.3
Breastfeeding mother and infant dyad	3,825	0.8	181,757	42.7	20,348	6.0	205,930	16.4	92,019	7.7	8,373	0.3	306,322	5.9
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	956,487	80.0	24,012	0.9	980,499	19.0
Homelessness/Migrancy	3,333	0.7	2,162	0.5	1,758	0.5	7,253	0.6	5,681	0.5	15,027	0.6	27,961	0.5
Other nutritional risks	44,556	9.0	11,019	2.6	22,514	6.6	78,089	6.2	63,562	5.3	127,513	4.7	269,164	5.2
No Risk Reported	142	< 0.1	193	< 0.1	295	0.1	630	0.1	2,441	0.2	5,375	0.2	8,446	0.2

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.16. Distribution of Participants in Participant Category With Two or More Races Reported by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Participants with Two or More Races Reported	25,186	–	22,184	–	17,290	–	64,660	–	134,580	–	309,510	–	508,750	–
Anthropometric	20,809	82.6	15,041	67.8	12,046	69.7	47,896	74.1	59,750	44.4	136,116	44.0	243,762	47.9
Low weight-for-height	914	3.6	586	2.6	510	2.9	2,010	3.1	9,490	7.1	15,398	5.0	26,898	5.3
High weight-for-height/length[a]	14,398	57.2	11,971	54.0	9,490	54.9	35,859	55.5	24,393	18.1	84,740	27.4	144,992	28.5
Short stature	68	0.3	61	0.3	55	0.3	184	0.3	14,398	10.7	25,772	8.3	40,354	7.9
Inappropriate growth or weight gain pattern	16,081	63.8	8,252	37.2	6,599	38.2	30,932	47.8	3,755	2.8	14,395	4.7	49,082	9.6
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	21,202	15.8	15,290	4.9	36,492	7.2
Other anthropometric risk	2	< 0.1	1	< 0.1	5	< 0.1	8	< 0.1	7,842	5.8	608	0.2	8,458	1.7
Biochemical	2,264	9.0	6,475	29.2	5,838	33.8	14,577	22.5	1,251	0.9	38,339	12.4	54,167	10.6
Hematocrit or hemoglobin below FNS criteria	2,262	9.0	6,475	29.2	5,836	33.8	14,573	22.5	1,250	0.9	38,088	12.3	53,911	10.6
Other biochemical test results that indicate nutritional abnormality	3	< 0.1	0	0.0	2	< 0.1	5	< 0.1	1	< 0.1	307	0.1	313	0.1
Clinical, Health, and Medical	14,974	59.5	10,905	49.2	10,418	60.3	36,297	56.1	8,274	6.1	30,998	10.0	75,569	14.9
Pregnancy-induced conditions	2,197	8.7	1,786	8.1	1,347	7.8	5,330	8.2	0	0.0	0	0.0	5,330	1.0
Delivery of low-birthweight or premature infant	1,436	5.7	1,766	8.0	1,751	10.1	4,953	7.7	0	0.0	0	0.0	4,953	1.0
Prior stillbirth, fetal, or neonatal death	1,445	5.7	214	1.0	463	2.7	2,122	3.3	0	0.0	0	0.0	2,122	0.4
General obstetrical risks	8,583	34.1	5,098	23.0	4,958	28.7	18,639	28.8	0	0.0	0	0.0	18,639	3.7
Nutrition-related risk conditions	3,702	14.7	4,620	20.8	4,148	24.0	12,470	19.3	7,430	5.5	24,634	8.0	44,534	8.8
Substance abuse[b]	4,416	17.5	1,188	5.4	2,726	15.8	8,330	12.9	636	0.5	1,203	0.4	10,169	2.0
Other health risks	847	3.4	481	2.2	464	2.7	1,792	2.8	806	0.6	6,884	2.2	9,482	1.9
Dietary	12,945	51.4	10,804	48.7	8,482	49.1	32,231	49.8	47,334	35.2	245,043	79.2	324,608	63.8
Failure to meet Dietary Guidelines for Americans	2,122	8.4	2,103	9.5	1,610	9.3	5,835	9.0	100	0.1	36,541	11.8	42,476	8.3
Inappropriate nutrition practices	10,985	43.6	8,825	39.8	6,958	40.2	26,768	41.4	47,270	35.1	211,562	68.4	285,600	56.1

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	2,906	11.5	13,770	62.1	2,021	11.7	18,697	28.9	114,744	85.3	24,136	7.8	157,577	31.0
Regression/Transfer/Presumptive eligibility	362	1.4	189	0.9	193	1.1	744	1.2	1,888	1.4	4,583	1.5	7,215	1.4
Breastfeeding mother and infant dyad	187	0.7	13,413	60.5	775	4.5	14,375	22.2	7,233	5.4	841	0.3	22,449	4.4
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	109,087	81.1	2,069	0.7	111,156	21.8
Homelessness/Migrancy	282	1.1	136	0.6	141	0.8	559	0.9	805	0.6	1,722	0.6	3,086	0.6
Other nutritional risks	2,227	8.8	585	2.6	1,011	5.8	3,823	5.9	7,895	5.9	16,712	5.4	28,430	5.6
No Risk Reported	5	< 0.1	10	< 0.1	16	0.1	31	< 0.1	274	0.2	553	0.2	858	0.2

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons for whom two or more races were reported.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.17. Distribution of Hispanic/Latino Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Hispanic/Latino Participants	315,101	–	309,580	–	180,490	–	805,171	–	798,694	–	2,081,864	–	3,685,729	–
Anthropometric	261,725	83.1	213,241	68.9	125,339	69.4	600,305	74.6	331,835	41.5	939,129	45.1	1,871,269	50.8
Low weight-for-height	8,241	2.6	6,069	2.0	4,187	2.3	18,497	2.3	48,500	6.1	88,929	4.3	155,926	4.2
High weight-for-height/length[a]	191,484	60.8	182,392	58.9	105,881	58.7	479,757	59.6	144,643	18.1	620,049	29.8	1,244,449	33.8
Short stature	1,012	0.3	853	0.3	608	0.3	2,473	0.3	69,742	8.7	185,113	8.9	257,328	7.0
Inappropriate growth or weight gain pattern	192,914	61.2	101,657	32.8	58,662	32.5	353,233	43.9	14,649	1.8	79,917	3.8	447,799	12.1
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	114,887	14.4	83,041	4.0	197,928	5.4
Other anthropometric risk	3	< 0.1	3	< 0.1	5	< 0.1	11	< 0.1	44,658	5.6	2,787	0.1	47,456	1.3
Biochemical	23,864	7.6	98,140	31.7	58,792	32.6	180,796	22.5	5,258	0.7	229,415	11.0	415,469	11.3
Hematocrit or hemoglobin below FNS criteria	23,840	7.6	98,117	31.7	58,782	32.6	180,739	22.4	5,238	0.7	228,312	11.0	414,289	11.2
Other biochemical test results that indicate nutritional abnormality	28	< 0.1	43	< 0.1	18	< 0.1	89	< 0.1	23	< 0.1	1,310	0.1	1,422	< 0.1
Clinical, Health, and Medical	150,926	47.9	150,930	48.8	92,727	51.4	394,583	49.0	37,785	4.7	169,354	8.1	601,722	16.3
Pregnancy-induced conditions	23,733	7.5	25,365	8.2	13,192	7.3	62,290	7.7	0	0.0	0	0.0	62,290	1.7
Delivery of low-birthweight or premature infant	15,596	4.9	29,387	9.5	15,610	8.6	60,593	7.5	0	0.0	0	0.0	60,593	1.6
Prior stillbirth, fetal, or neonatal death	13,199	4.2	2,390	0.8	5,940	3.3	21,529	2.7	0	0.0	0	0.0	21,529	0.6
General obstetrical risks	94,449	30.0	66,908	21.6	44,330	24.6	205,687	25.5	0	0.0	0	0.0	205,687	5.6
Nutrition-related risk conditions	29,214	9.3	71,173	23.0	39,631	22.0	140,018	17.4	33,591	4.2	125,268	6.0	298,877	8.1
Substance abuse[b]	17,865	5.7	2,969	1.0	5,290	2.9	26,124	3.2	3,395	0.4	6,757	0.3	36,276	1.0
Other health risks	7,597	2.4	5,845	1.9	2,791	1.5	16,233	2.0	4,529	0.6	47,083	2.3	67,845	1.8
Dietary	159,997	50.8	138,584	44.8	92,285	51.1	390,866	48.5	321,290	40.2	1,596,804	76.7	2,308,960	62.6
Failure to meet Dietary Guidelines for Americans	28,006	8.9	24,004	7.8	17,132	9.5	69,142	8.6	202	< 0.1	260,526	12.5	329,870	8.9
Inappropriate nutrition practices	134,539	42.7	115,952	37.5	76,197	42.2	326,688	40.6	321,194	40.2	1,360,907	65.4	2,008,789	54.5

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	17,684	5.6	146,003	47.2	17,274	9.6	180,961	22.5	693,872	86.9	96,836	4.7	971,669	26.4
Regression/Transfer/Presumptive eligibility	4,033	1.3	2,358	0.8	1,938	1.1	8,329	1.0	10,374	1.3	31,872	1.5	50,575	1.4
Breastfeeding mother and infant dyad	2,613	0.8	141,091	45.6	10,995	6.1	154,699	19.2	58,778	7.4	6,317	0.3	219,794	6.0
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	668,417	83.7	17,803	0.9	686,220	18.6
Homelessness/Migrancy	2,080	0.7	1,903	0.6	1,046	0.6	5,029	0.6	4,570	0.6	13,369	0.6	22,968	0.6
Other nutritional risks	10,435	3.3	4,073	1.3	4,038	2.2	18,546	2.3	18,173	2.3	40,503	1.9	77,222	2.1
No Risk Reported	115	< 0.1	116	< 0.1	122	0.1	353	< 0.1	600	0.1	1,476	0.1	2,429	0.1

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.18. Distribution of Non-Hispanic/Latino Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Non-Hispanic/Latino Participants	485,191	–	375,150	–	391,824	–	1,252,165	–	1,256,484	–	2,616,484	–	5,125,133	–
Anthropometric	390,995	80.6	258,567	68.9	281,562	71.9	931,124	74.4	600,167	47.8	1,167,085	44.6	2,698,376	52.6
Low weight-for-height	22,313	4.6	14,228	3.8	16,332	4.2	52,873	4.2	118,340	9.4	143,102	5.5	314,315	6.1
High weight-for-height/length[a]	273,008	56.3	196,626	52.4	216,512	55.3	686,146	54.8	227,005	18.1	684,359	26.2	1,597,510	31.2
Short stature	809	0.2	869	0.2	645	0.2	2,323	0.2	149,600	11.9	220,124	8.4	372,047	7.3
Inappropriate growth or weight gain pattern	271,289	55.9	147,988	39.4	154,738	39.5	574,015	45.8	38,640	3.1	142,663	5.5	755,318	14.7
Low birth weight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	225,085	17.9	168,805	6.5	393,890	7.7
Other anthropometric risk	7	< 0.1	6	< 0.1	9	< 0.1	22	< 0.1	74,860	6.0	6,809	0.3	81,691	1.6
Biochemical	57,240	11.8	115,938	30.9	154,354	39.4	327,532	26.2	12,936	1.0	387,138	14.8	727,606	14.2
Hematocrit or hemoglobin below FNS criteria	57,212	11.8	115,920	30.9	154,330	39.4	327,462	26.2	12,919	1.0	384,379	14.7	724,760	14.1
Other biochemical test results that indicate nutritional abnormality	35	< 0.1	32	< 0.1	31	< 0.1	98	< 0.1	26	< 0.1	3,379	0.1	3,503	0.1
Clinical, Health, and Medical	285,734	58.9	204,261	54.4	249,168	63.6	739,163	59.0	73,644	5.9	264,733	10.1	1,077,540	21.0
Pregnancy-induced conditions	38,876	8.0	30,657	8.2	32,314	8.2	101,847	8.1	0	0.0	0	0.0	101,847	2.0
Delivery of low-birthweight or premature infant	38,127	7.9	42,461	11.3	54,716	14.0	135,304	10.8	0	0.0	0	0.0	135,304	2.6
Prior stillbirth, fetal, or neonatal death	32,792	6.8	3,903	1.0	9,746	2.5	46,441	3.7	0	0.0	0	0.0	46,441	0.9
General obstetrical risks	152,614	31.5	86,514	23.1	97,470	24.9	336,598	26.9	0	0.0	0	0.0	336,598	6.6
Nutrition-related risk conditions	74,589	15.4	95,637	25.5	109,860	28.0	280,086	22.4	67,785	5.4	219,769	8.4	567,640	11.1
Substance abuse[b]	80,275	16.5	23,814	6.3	68,383	17.5	172,472	13.8	4,769	0.4	10,353	0.4	187,594	3.7
Other health risks	21,051	4.3	10,506	2.8	12,873	3.3	44,430	3.5	5,227	0.4	47,794	1.8	97,451	1.9
Dietary	177,065	36.5	119,223	31.8	135,472	34.6	431,760	34.5	388,713	30.9	1,892,441	72.3	2,712,914	52.9
Failure to meet Dietary Guidelines for Americans	36,008	7.4	25,496	6.8	26,210	6.7	87,714	7.0	792	0.1	335,218	12.8	423,724	8.3
Inappropriate nutrition practices	143,020	29.5	94,767	25.3	110,626	28.2	348,413	27.8	388,120	30.9	1,575,765	60.2	2,312,298	45.1

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	64,213	13.2	187,209	49.9	50,850	13.0	302,272	24.1	1,028,132	81.8	229,432	8.8	1,559,836	30.4
Regression/Transfer/Presumptive eligibility	5,169	1.1	3,300	0.9	3,908	1.0	12,377	1.0	17,452	1.4	39,191	1.5	69,020	1.3
Breastfeeding mother and infant dyad	3,326	0.7	178,903	47.7	17,292	4.4	199,521	15.9	76,291	6.1	6,391	0.2	282,203	5.5
Infant of a WIC-eligible mother or mother at risk during pregnancy	0	0.0	0	0.0	0	0.0	0	0.0	970,027	77.2	20,040	0.8	990,067	19.3
Homelessness/Migrancy	2,991	0.6	1,398	0.4	1,715	0.4	6,104	0.5	4,294	0.3	8,729	0.3	19,127	0.4
Other nutritional risks	54,802	11.3	12,482	3.3	29,705	7.6	96,989	7.7	81,686	6.5	168,562	6.4	347,237	6.8
No Risk Reported	198	< 0.1	266	0.1	411	0.1	875	0.1	3,262	0.3	7,710	0.3	11,847	0.2

Notes

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

This table reports information on persons not of Mexican, Puerto Rican, Cuban, Central, or South American or other Spanish descent, culture, or origin regardless of race.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[b] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.19. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of American Indian or Alaska Native-Only Participants by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total American Indian or Alaska Native-Only Participants *(N)*	906,698
Pregnant Women *(N)*	83,909
General obstetrical risks	29.8
Inappropriate growth or weight gain pattern	61.7
Inappropriate nutrition practices	62.6
Prepregnancy high weight-for-height	58.9
Breastfeeding Women *(N)*	72,623
Breastfeeding mother and infant dyad	72.6
General obstetrical risks	19.3
Hematocrit or hemoglobin below FNS criteria	27.3
High weight-for-height	56.8
Inappropriate growth or weight gain pattern	24.8
Inappropriate nutrition practices	59.3
Nutrition-related risk conditions	15.0
Postpartum Women *(N)*	46,473
General obstetrical risks	23.9
Hematocrit or hemoglobin below FNS criteria	28.6
High weight-for-height	56.6
Inappropriate growth or weight gain pattern	25.7
Inappropriate nutrition practices	57.8
Nutrition-related risk conditions	18.7
Infants *(N)*	170,130
High weight-for-height/length[a]	15.3
Inappropriate nutrition practices	40.8
Infant of a WIC-eligible mother or mother at risk during pregnancy	88.6
Children *(N)*	533,563
High weight-for-height/length[a]	31.9
Inappropriate nutrition practices	77.8

Notes

This table reports information on persons having origins in any of the original peoples of North America who maintain cultural identification through Tribal affiliation or community recognition (includes Aleuts and Eskimos).

[a] Since 2014, for 1-year-old children, this risk has reflected child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.20. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Asian-Only Participants by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total Asian-Only Participants *(N)*	317,604
Pregnant Women *(N)*	29,203
General obstetrical risks	26.7
Inappropriate growth or weight gain pattern	52.6
Inappropriate nutrition practices	49.7
Prepregnancy high weight-for-height	31.0
Breastfeeding Women *(N)*	31,751
Breastfeeding mother and infant dyad	52.0
General obstetrical risks	17.9
Hematocrit or hemoglobin below FNS criteria	30.4
High weight-for-height	30.9
Inappropriate growth or weight gain pattern	24.2
Inappropriate nutrition practices	44.4
Nutrition-related risk conditions	19.7
Postpartum Women *(N)*	17,411
General obstetrical risks	21.8
Hematocrit or hemoglobin below FNS criteria	33.6
High weight-for-height	30.8
Inappropriate growth or weight gain pattern	24.0
Inappropriate nutrition practices	47.2
Nutrition-related risk conditions	19.6
Infants *(N)*	68,222
Inappropriate nutrition practices	34.1
Infant of a WIC-eligible mother or mother at risk during pregnancy	81.7
Children *(N)*	171,017
High weight-for-height/length[a]	18.5
Inappropriate nutrition practices	71.8

Notes

This table reports information on persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent. This area includes Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

[a] Since 2014, for 1-year-old children, this risk has reflected child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.21. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Black or African American-Only Participants by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total Black or African American-Only Participants *(N)*	1,829,374
Pregnant Women *(N)*	161,859
General obstetrical risks	29.5
Hematocrit or hemoglobin below FNS criteria	20.3
Inappropriate growth or weight gain pattern	56.2
Inappropriate nutrition practices	29.7
Prepregnancy high weight-for-height	62.2
Breastfeeding Women *(N)*	124,781
Breastfeeding mother and infant dyad	41.7
General obstetrical risks	21.8
Hematocrit or hemoglobin below FNS criteria	43.8
High weight-for-height	59.9
Inappropriate growth or weight gain pattern	39.7
Inappropriate nutrition practices	24.8
Nutrition-related risk conditions	28.0
Postpartum Women *(N)*	145,854
Delivery of low-birthweight or premature infant	16.4
General obstetrical risks	24.4
Hematocrit or hemoglobin below FNS criteria	51.7
High weight-for-height	59.4
Inappropriate growth or weight gain pattern	38.7
Inappropriate nutrition practices	28.4
Nutrition-related risk conditions	27.0
Infants *(N)*	467,517
High weight-for-height/length[a]	18.4
Inappropriate nutrition practices	32.3
Infant of a WIC-eligible mother or mother at risk during pregnancy	75.4
Low birth weight or premature birth	21.0
Children *(N)*	929,363
Hematocrit or hemoglobin below FNS criteria	21.1
High weight-for-height/length[a]	25.8
Inappropriate nutrition practices	58.2

Notes

This table reports information on persons having origins in any of the Black racial groups of Africa.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.22. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Native Hawaiian or Other Pacific Islander-Only Participants by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total Native Hawaiian or Other Pacific Islander-Only Participants *(N)*	69,882
Pregnant Women *(N)*	6,217
General obstetrical risks	34.1
Inappropriate growth or weight gain pattern	58.5
Inappropriate nutrition practices	37.3
Prepregnancy high weight-for-height	64.0
Breastfeeding Women *(N)*	6,384
Breastfeeding mother and infant dyad	52.5
General obstetrical risks	18.7
Hematocrit or hemoglobin below FNS criteria	29.7
High weight-for-height	62.0
Inappropriate growth or weight gain pattern	41.1
Inappropriate nutrition practices	31.2
Nutrition-related risk conditions	17.4
Postpartum Women *(N)*	4,430
General obstetrical risks	24.5
Hematocrit or hemoglobin below FNS criteria	33.9
High weight-for-height	60.9
Inappropriate growth or weight gain pattern	40.6
Inappropriate nutrition practices	32.4
Nutrition-related risk conditions	20.7
Infants *(N)*	15,260
High weight-for-height/length[a]	25.9
Inappropriate nutrition practices	30.8
Infant of a WIC-eligible mother or mother at risk during pregnancy	82.3
Children *(N)*	37,591
High weight-for-height/length[a]	29.6
Inappropriate nutrition practices	67.1

Notes
This table reports information on persons descended from the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.23. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of White-Only Participants by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total White-Only Participants *(N)*	5,168,190
Pregnant Women *(N)*	492,947
General obstetrical risks	31.6
Inappropriate growth or weight gain pattern	58.0
Inappropriate nutrition practices	30.2
Prepregnancy high weight-for-height	58.2
Breastfeeding Women *(N)*	426,158
Breastfeeding mother and infant dyad	42.7
General obstetrical risks	23.5
Hematocrit or hemoglobin below FNS criteria	28.5
High weight-for-height	55.6
Inappropriate growth or weight gain pattern	38.4
Inappropriate nutrition practices	26.2
Nutrition-related risk conditions	25.6
Postpartum Women *(N)*	340,106
General obstetrical risks	25.0
Hematocrit or hemoglobin below FNS criteria	32.7
High weight-for-height	56.4
Inappropriate growth or weight gain pattern	38.9
Inappropriate nutrition practices	30.0
Nutrition-related risk conditions	27.3
Substance abuse	16.6
Infants *(N)*	1,196,174
High weight-for-height/length[a]	18.7
Inappropriate nutrition practices	34.5
Infant of a WIC-eligible mother or mother at risk during pregnancy	80.0
Low birth weight or premature birth	15.8
Children *(N)*	2,712,805
High weight-for-height/length[a]	28.2
Inappropriate nutrition practices	59.7

Notes
This table reports information on persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.
[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.24. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Participants With Two or More Races Reported by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total Participants With Two or More Races Reported *(N)*	508,750
Pregnant Women *(N)*	25,186
General obstetrical risks	34.1
Inappropriate growth or weight gain pattern	63.8
Inappropriate nutrition practices	43.6
Prepregnancy high weight-for-height	57.2
Substance abuse	17.5
Breastfeeding Women *(N)*	22,184
Breastfeeding mother and infant dyad	60.5
General obstetrical risks	23.0
Hematocrit or hemoglobin below FNS criteria	29.2
High weight-for-height	54.0
Inappropriate growth or weight gain pattern	37.2
Inappropriate nutrition practices	39.8
Nutrition-related risk conditions	20.8
Postpartum Women *(N)*	17,290
General obstetrical risks	28.7
Hematocrit or hemoglobin below FNS criteria	33.8
High weight-for-height	54.9
Inappropriate growth or weight gain pattern	38.2
Inappropriate nutrition practices	40.2
Nutrition-related risk conditions	24.0
Substance abuse	15.8
Infants *(N)*	134,580
High weight-for-height/length[a]	18.1
Inappropriate nutrition practices	35.1
Infant of a WIC-eligible mother or mother at risk during pregnancy	81.1
Low birth weight or premature birth	15.8
Children *(N)*	309,510
High weight-for-height/length[a]	27.4
Inappropriate nutrition practices	68.4

Notes

This table reports information on persons for whom two or more races were reported.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.25. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Hispanic/Latino Participants by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total Hispanic/Latino Participants *(N)*	3,685,729
Pregnant Women *(N)*	315,101
General obstetrical risks	30.0
Inappropriate growth or weight gain pattern	61.2
Inappropriate nutrition practices	42.7
Prepregnancy high weight-for-height	60.8
Breastfeeding Women *(N)*	309,580
Breastfeeding mother and infant dyad	45.6
General obstetrical risks	21.6
Hematocrit or hemoglobin below FNS criteria	31.7
High weight-for-height	58.9
Inappropriate growth or weight gain pattern	32.8
Inappropriate nutrition practices	37.5
Nutrition-related risk conditions	23.0
Postpartum Women *(N)*	180,490
General obstetrical risks	24.6
Hematocrit or hemoglobin below FNS criteria	32.6
High weight-for-height	58.7
Inappropriate growth or weight gain pattern	32.5
Inappropriate nutrition practices	42.2
Nutrition-related risk conditions	22.0
Infants *(N)*	798,694
High weight-for-height/length[a]	18.1
Inappropriate nutrition practices	40.2
Infant of a WIC-eligible mother or mother at risk during pregnancy	83.7
Children *(N)*	2,081,864
High weight-for-height/length[a]	29.8
Inappropriate nutrition practices	65.4

Notes

This table reports information on persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race.

[a] Since 2014, for 1-year-old children, this risk has reflected child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.26. Percentage of Specific Nutritional Risk Reported for at Least 15 Percent of Non-Hispanic/ Latino Participants by Participant Category

Participant Category and Specific Nutritional Risk	Percent
Total Non-Hispanic/Latino Participants *(N)*	5,125,133
Pregnant Women *(N)*	485,191
General obstetrical risks	31.5
Inappropriate growth or weight gain pattern	55.9
Inappropriate nutrition practices	29.5
Nutrition-related risk conditions	15.4
Prepregnancy high weight-for-height	56.3
Substance abuse	16.5
Breastfeeding Women *(N)*	375,150
Breastfeeding mother and infant dyad	47.7
General obstetrical risks	23.1
Hematocrit or hemoglobin below FNS standard	30.9
High weight-for-height	52.4
Inappropriate growth or weight gain pattern	39.4
Inappropriate nutrition practices	25.3
Nutrition-related risk conditions	25.5
Postpartum Women *(N)*	391,824
General obstetrical risks	24.9
Hematocrit or hemoglobin below FNS criteria	39.4
High weight-for-height	55.3
Inappropriate growth or weight gain pattern	39.5
Inappropriate nutrition practices	28.2
Nutrition-related risk conditions	28.0
Substance abuse	17.5
Infants *(N)*	1,256,484
High weight-for-height/length[a]	18.1
Inappropriate nutrition practices	30.9
Infant of a WIC-eligible mother or mother at risk during pregnancy	77.2
Low birth weight or premature birth	17.9
Children *(N)*	2,616,484
High weight-for-height/length[a]	26.2
Inappropriate nutrition practices	60.2

Notes

This table reports information on persons not of Mexican, Puerto Rican, Cuban, Central, or South American, or other Spanish culture or origin regardless of race.

[a] Since 2014, for infants and 1-year-old children, this risk has reflected infant/child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

Table 4.27. Distribution of Income as a Percentage of Federal Poverty Guidelines for Women Participants by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total Women	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Women Participants	1,334,311	–	255,263	–	246,613	–	40,757	–	15,855	–	165,630	–	2,058,429	–
Anthropometric	1,002,556	75.1	190,747	74.7	182,664	74.1	29,967	73.5	10,316	65.1	115,536	69.8	1,531,786	74.4
Low weight-for-height	47,419	3.6	7,799	3.1	7,085	2.9	1,325	3.3	616	3.9	7,140	4.3	71,384	3.5
High weight-for-height/length	767,033	57.5	146,076	57.2	138,795	56.3	21,834	53.6	7,444	47.0	85,012	51.3	1,166,194	56.7
Short stature	2,073	0.2	432	0.2	353	0.1	60	0.1	0	0.0	1,878	1.1	4,796	0.2
Inappropriate growth or weight gain pattern	604,301	45.3	117,296	46.0	114,618	46.5	19,573	48.0	6,346	40.0	65,293	39.4	927,427	45.1
Other anthropometric risk	17	< 0.1	3	< 0.1	5	< 0.1	0	0.0	0	0.0	8	< 0.1	33	< 0.1
Biochemical	349,403	26.2	55,344	21.7	49,336	20.0	7,832	19.2	2,915	18.4	43,605	26.3	508,435	24.7
Hematocrit or hemoglobin below FNS criteria	349,316	26.2	55,329	21.7	49,328	20.0	7,830	19.2	2,911	18.4	43,594	26.3	508,308	24.7
Other biochemical test results that indicate nutritional abnormality	128	< 0.1	21	< 0.1	11	< 0.1	3	< 0.1	4	< 0.1	20	< 0.1	187	< 0.1
Clinical, Health, and Medical	750,528	56.2	131,077	51.3	123,479	50.1	20,425	50.1	8,089	51.0	100,386	60.6	1,133,984	55.1
Pregnancy-induced conditions	105,628	7.9	21,412	8.4	20,567	8.3	3,162	7.8	996	6.3	12,405	7.5	164,170	8.0
Delivery of low-birthweight or premature infant	131,275	9.8	20,652	8.1	18,701	7.6	3,035	7.4	1,729	10.9	20,533	12.4	195,925	9.5
Prior stillbirth, fetal, or neonatal death	43,222	3.2	8,478	3.3	8,397	3.4	1,434	3.5	399	2.5	6,063	3.7	67,993	3.3
General obstetrical risks	371,636	27.9	60,984	23.9	54,175	22.0	8,654	21.2	3,931	24.8	43,008	26.0	542,388	26.3
Nutrition-related risk conditions	271,363	20.3	49,865	19.5	49,300	20.0	8,183	20.1	2,801	17.7	38,677	23.4	420,189	20.4
Substance abuse	134,785	10.1	17,976	7.0	16,140	6.5	3,377	8.3	1,464	9.2	24,879	15.0	198,621	9.6
Other health risks	38,758	2.9	6,351	2.5	5,661	2.3	1,305	3.2	432	2.7	8,159	4.9	60,666	2.9
Dietary	549,843	41.2	105,659	41.4	99,788	40.5	14,873	36.5	5,056	31.9	47,564	28.7	822,783	40.0
Failure to meet Dietary Guidelines for Americans	98,773	7.4	21,574	8.5	22,255	9.0	3,839	9.4	981	6.2	9,524	5.8	156,946	7.6
Inappropriate nutrition practices	457,135	34.3	85,296	33.4	78,665	31.9	11,208	27.5	4,111	25.9	38,759	23.4	675,174	32.8

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total Women	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	306,320	23.0	61,422	24.1	59,768	24.2	8,463	20.8	4,731	29.8	43,336	26.2	484,040	23.5
Regression/Transfer/Presumptive eligibility	7,825	0.6	1,238	0.5	1,196	0.5	172	0.4	2,059	13.0	8,946	5.4	21,436	1.0
Breastfeeding mother and infant dyad	223,166	16.7	51,096	20.0	50,760	20.6	6,652	16.3	1,979	12.5	20,675	12.5	354,328	17.2
Homelessness/Migrancy	7,891	0.6	827	0.3	581	0.2	125	0.3	247	1.6	1,466	0.9	11,137	0.5
Other nutritional risks	78,762	5.9	10,045	3.9	8,795	3.6	1,825	4.5	849	5.4	15,294	9.2	115,570	5.6
No Risk Reported	776	0.1	145	0.1	132	0.1	20	< 0.1	40	0.3	142	0.1	1,255	0.1

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Zero incomes are reported separately and were excluded from Federal Poverty Guidelines calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on income, income period, or size of economic unit.

Table 4.28. Distribution of Income as a Percentage of Federal Poverty Guidelines for Infant Participants by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total Infants	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Infant Participants	1,352,981	–	232,840	–	216,756	–	31,306	–	32,674	–	190,291	–	2,056,848	–
Anthropometric	615,569	45.5	101,132	43.4	94,960	43.8	14,147	45.2	14,390	44.0	92,099	48.4	932,297	45.3
Low weight-for-height	110,906	8.2	17,622	7.6	16,143	7.4	2,616	8.4	2,309	7.1	17,281	9.1	166,877	8.1
High weight-for-height/length[c]	240,474	17.8	40,644	17.5	38,219	17.6	5,023	16.0	6,425	19.7	40,971	21.5	371,756	18.1
Short stature	147,162	10.9	21,538	9.3	20,013	9.2	3,424	10.9	3,558	10.9	23,739	12.5	219,434	10.7
Inappropriate growth or weight gain pattern	34,723	2.6	6,284	2.7	6,313	2.9	981	3.1	512	1.6	4,501	2.4	53,314	2.6
Low birth weight or premature birth	228,716	16.9	34,254	14.7	31,961	14.7	5,280	16.9	5,338	16.3	34,497	18.1	340,046	16.5
Other anthropometric risk	78,543	5.8	14,511	6.2	13,967	6.4	1,968	6.3	1,550	4.7	9,009	4.7	119,548	5.8
Biochemical	11,447	0.8	2,070	0.9	2,104	1.0	360	1.1	124	0.4	2,142	1.1	18,247	0.9
Hematocrit or hemoglobin below FNS criteria	11,421	0.8	2,068	0.9	2,103	1.0	360	1.1	123	0.4	2,135	1.1	18,210	0.9
Other biochemical test results that indicate nutritional abnormality	35	< 0.1	2	< 0.1	1	< 0.1	1	< 0.1	1	< 0.1	9	< 0.1	49	< 0.1
Clinical, Health, and Medical	68,947	5.1	11,739	5.0	11,764	5.4	2,288	7.3	1,110	3.4	15,622	8.2	111,470	5.4
Nutrition-related risk conditions	64,523	4.8	11,097	4.8	11,228	5.2	2,183	7.0	1,052	3.2	11,334	6.0	101,417	4.9
Substance abuse[d]	3,957	0.3	667	0.3	557	0.3	116	0.4	19	0.1	2,848	1.5	8,164	0.4
Other health risks	4,771	0.4	697	0.3	642	0.3	120	0.4	44	0.1	3,483	1.8	9,757	0.5
Dietary	479,288	35.4	81,758	35.1	75,140	34.7	10,677	34.1	11,538	35.3	51,698	27.2	710,099	34.5
Failure to meet Dietary Guidelines for Americans	405	< 0.1	96	< 0.1	116	0.1	20	0.1	16	< 0.1	341	0.2	994	< 0.1
Inappropriate nutrition practices	478,994	35.4	81,680	35.1	75,053	34.6	10,658	34.0	11,523	35.3	51,502	27.1	709,410	34.5

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total Infants	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	1,131,377	83.6	196,563	84.4	179,981	83.0	25,193	80.5	28,114	86.0	162,410	85.3	1,723,638	83.8
Regression/Transfer/Presumptive eligibility	7,679	0.6	927	0.4	856	0.4	156	0.5	3,735	11.4	16,044	8.4	29,397	1.4
Breastfeeding mother and infant dyad	87,494	6.5	17,338	7.4	15,968	7.4	1,931	6.2	1,939	5.9	10,411	5.5	135,081	6.6
Infant of WIC-eligible or mother at risk during pregnancy	1,084,590	80.2	190,161	81.7	174,094	80.3	24,200	77.3	23,804	72.9	141,825	74.5	1,638,674	79.7
Homelessness/Migrancy	6,323	0.5	597	0.3	363	0.2	85	0.3	279	0.9	1,228	0.6	8,875	0.4
Other nutritional risk	66,266	4.9	6,955	3.0	5,919	2.7	1,305	4.2	2,112	6.5	17,401	9.1	99,958	4.9
No Risk Reported	1,641	0.1	298	0.1	317	0.1	42	0.1	96	0.3	1,481	0.8	3,875	0.2

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Zero incomes are reported separately and were excluded from Federal Poverty Guidelines calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on income, income period, or size of economic unit.

[c] Since 2014, for infants, this risk has reflected infant length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[d] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.29. Distribution of Income as a Percentage of Federal Poverty Guidelines for Child Participants by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Child Participants	3,095,846	–	574,039	–	532,147	–	89,591	–	28,424	–	380,148	–	4,700,195	–
Anthropometric	1,395,934	45.1	249,078	43.4	224,071	42.1	38,208	42.6	11,626	40.9	187,729	49.4	2,106,646	44.8
Low weight-for-height	152,525	4.9	28,594	5.0	27,899	5.2	4,558	5.1	1,364	4.8	17,164	4.5	232,104	4.9
High weight-for-height/length[c]	866,417	28.0	153,152	26.7	134,205	25.2	21,999	24.6	7,179	25.3	121,730	32.0	1,304,682	27.8
Short stature	266,475	8.6	46,864	8.2	42,702	8.0	8,052	9.0	2,575	9.1	38,654	10.2	405,322	8.6
Inappropriate growth or weight gain pattern	144,979	4.7	26,673	4.6	24,171	4.5	4,215	4.7	873	3.1	21,700	5.7	222,611	4.7
Low birth weight or premature birth	165,733	5.4	27,357	4.8	25,177	4.7	4,979	5.6	1,192	4.2	27,434	7.2	251,872	5.4
Other anthropometric risk	6,361	0.2	1,060	0.2	1,083	0.2	233	0.3	94	0.3	766	0.2	9,597	0.2
Biochemical	421,946	13.6	67,539	11.8	60,462	11.4	10,037	11.2	3,505	12.3	53,199	14.0	616,688	13.1
Hematocrit or hemoglobin below FNS criteria	419,491	13.6	67,201	11.7	60,165	11.3	9,991	11.2	3,481	12.2	52,495	13.8	612,824	13.0
Other biochemical test results that indicate nutritional abnormality	3,020	0.1	397	0.1	347	0.1	51	0.1	29	0.1	847	0.2	4,691	0.1
Clinical, Health, and Medical	274,387	8.9	50,802	8.8	47,517	8.9	10,144	11.3	1,988	7.0	49,322	13.0	434,160	9.2
Nutrition-related risk conditions	218,445	7.1	40,929	7.1	39,435	7.4	8,625	9.6	1,647	5.8	36,014	9.5	345,095	7.3
Substance abuse[d]	6,385	0.2	1,218	0.2	1,128	0.2	237	0.3	31	0.1	8,111	2.1	17,110	0.4
Other health risks	60,275	1.9	10,611	1.8	8,728	1.6	1,696	1.9	346	1.2	13,236	3.5	94,892	2.0
Dietary	2,307,215	74.5	445,946	77.7	412,475	77.5	69,150	77.2	14,979	52.7	239,956	63.1	3,489,721	74.2
Failure to meet Dietary Guidelines for Americans	390,703	12.6	76,204	13.3	73,417	13.8	11,659	13.0	3,247	11.4	40,643	10.7	595,873	12.7
Inappropriate nutrition practices	1,943,593	62.8	374,982	65.3	343,865	64.6	58,300	65.1	11,947	42.0	204,335	53.8	2,937,022	62.5

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	197,921	6.4	25,139	4.4	21,445	4.0	4,594	5.1	7,343	25.8	71,190	18.7	327,632	7.0
Regression/Transfer/ Presumptive eligibility	32,965	1.1	5,575	1.0	5,475	1.0	939	1.0	4,682	16.5	22,759	6.0	72,395	1.5
Breastfeeding mother and infant dyad	4,167	0.1	1,017	0.2	841	0.2	201	0.2	7	< 0.1	6,477	1.7	12,710	0.3
Infant of WIC-eligible or mother at risk during pregnancy	14,267	0.5	2,915	0.5	2,882	0.5	533	0.6	108	0.4	17,151	4.5	37,856	0.8
Homelessness/Migrancy	16,324	0.5	1,606	0.3	955	0.2	244	0.3	381	1.3	2,593	0.7	22,103	0.5
Other nutritional risks	138,848	4.5	15,738	2.7	12,706	2.4	3,090	3.4	2,334	8.2	36,424	9.6	209,140	4.4
No Risk Reported	5,729	0.2	1,243	0.2	1,151	0.2	136	0.2	89	0.3	882	0.2	9,230	0.2

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Zero incomes are reported separately and were excluded from Federal Poverty Guidelines calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on income, income period, or size of economic unit.

[c] Since 2014, for 1-year-old children, this risk has reflected child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[d] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.30. Distribution of Income as a Percentage of Federal Poverty Guidelines for 1-Year-Old Child Participants by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 1-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total 1-Year-Old Child Participants	1,136,146	–	209,640	–	197,673	–	35,377	–	11,604	–	159,792	–	1,750,232	–
Anthropometric	478,860	42.1	83,482	39.8	76,693	38.8	13,877	39.2	4,573	39.4	78,190	48.9	735,675	42.0
Low weight-for-height	17,888	1.6	3,265	1.6	3,193	1.6	575	1.6	173	1.5	2,365	1.5	27,459	1.6
High weight-for-height/length[c]	223,567	19.7	38,259	18.2	34,337	17.4	5,751	16.3	2,449	21.1	43,298	27.1	347,661	19.9
Short stature	112,333	9.9	19,770	9.4	18,394	9.3	3,538	10.0	1,166	10.0	17,549	11.0	172,750	9.9
Inappropriate growth or weight gain pattern	62,853	5.5	11,754	5.6	11,306	5.7	1,977	5.6	459	4.0	11,504	7.2	99,853	5.7
Low birth weight or premature birth	158,162	13.9	25,813	12.3	23,768	12.0	4,719	13.3	1,130	9.7	24,561	15.4	238,153	13.6
Other anthropometric risk	6,030	0.5	969	0.5	1,001	0.5	222	0.6	90	0.8	735	0.5	9,047	0.5
Biochemical	200,443	17.6	33,690	16.1	31,196	15.8	5,387	15.2	1,708	14.7	27,778	17.4	300,202	17.2
Hematocrit or hemoglobin below FNS criteria	199,717	17.6	33,584	16.0	31,083	15.7	5,362	15.2	1,701	14.7	27,552	17.2	298,999	17.1
Other biochemical test results that indicate nutritional abnormality	931	0.1	138	0.1	141	0.1	26	0.1	10	0.1	289	0.2	1,535	0.1
Clinical, Health, and Medical	82,614	7.3	15,238	7.3	14,760	7.5	3,364	9.5	818	7.0	17,333	10.8	134,127	7.7
Nutrition-related risk conditions	77,019	6.8	14,201	6.8	13,944	7.1	3,186	9.0	778	6.7	13,980	8.7	123,108	7.0
Substance abuse[d]	2,135	0.2	407	0.2	393	0.2	81	0.2	12	0.1	2,854	1.8	5,882	0.3
Other health risks	5,539	0.5	1,030	0.5	827	0.4	209	0.6	37	0.3	3,073	1.9	10,715	0.6
Dietary	844,837	74.4	162,528	77.5	152,656	77.2	27,380	77.4	6,021	51.9	98,367	61.6	1,291,789	73.8
Failure to meet Dietary Guidelines for Americans	24,369	2.1	4,944	2.4	5,290	2.7	1,226	3.5	245	2.1	2,335	1.5	38,409	2.2
Inappropriate nutrition practices	822,167	72.4	157,850	75.3	147,659	74.7	26,203	74.1	5,799	50.0	96,463	60.4	1,256,141	71.8

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 1-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	77,184	6.8	9,824	4.7	8,717	4.4	1,954	5.5	3,163	27.3	28,649	17.9	129,491	7.4
Regression/Transfer/Presumptive eligibility	11,187	1.0	1,823	0.9	1,818	0.9	294	0.8	2,009	17.3	9,087	5.7	26,218	1.5
Breastfeeding mother and infant dyad	1,957	0.2	520	0.2	420	0.2	99	0.3	6	0.1	2,180	1.4	5,182	0.3
Infant of WIC-eligible or mother at risk during pregnancy	9,045	0.8	1,764	0.8	1,905	1.0	345	1.0	108	0.9	7,063	4.4	20,230	1.2
Homelessness/Migrancy	5,942	0.5	597	0.3	375	0.2	100	0.3	146	1.3	966	0.6	8,126	0.5
Other nutritional risks	52,644	4.6	5,823	2.8	4,801	2.4	1,293	3.7	983	8.5	14,495	9.1	80,039	4.6
No Risk Reported	3,504	0.3	740	0.4	690	0.3	76	0.2	39	0.3	659	0.4	5,708	0.3

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Zero incomes are reported separately and were excluded from Federal Poverty Guidelines calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on income, income period, or size of economic unit.

[c] Since 2014, for 1-year-old children, this risk has reflected child length and weight measurements as well as parental (biological) obesity. Prior to 2014, this risk reflected only parental (biological) obesity.

[d] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.31. Distribution of Income as a Percentage of Federal Poverty Guidelines for 2-Year-Old Child Participants by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 2-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total 2-Year-Old Child Participants	804,897	–	148,639	–	137,429	–	22,442	–	7,469	–	95,577	–	1,216,453	–
Anthropometric	363,829	45.2	64,903	43.7	57,974	42.2	9,628	42.9	3,096	41.5	47,079	49.3	546,509	44.9
Low weight-for-height	54,552	6.8	10,185	6.9	10,151	7.4	1,653	7.4	538	7.2	6,407	6.7	83,486	6.9
High weight-for-height/length	247,653	30.8	43,465	29.2	37,940	27.6	6,111	27.2	2,024	27.1	33,153	34.7	370,346	30.4
Short stature	72,156	9.0	12,775	8.6	11,279	8.2	2,096	9.3	661	8.8	10,065	10.5	109,032	9.0
Inappropriate growth or weight gain pattern	27,912	3.5	5,002	3.4	4,236	3.1	775	3.5	164	2.2	3,412	3.6	41,501	3.4
Low birth weight or premature birth	5,980	0.7	1,199	0.8	1,100	0.8	208	0.9	60	0.8	1,795	1.9	10,342	0.9
Other anthropometric risk	302	< 0.1	83	0.1	69	0.1	10	< 0.1	4	0.1	18	< 0.1	486	< 0.1
Biochemical	112,220	13.9	17,087	11.5	14,884	10.8	2,329	10.4	965	12.9	13,202	13.8	160,687	13.2
Hematocrit or hemoglobin below FNS criteria	111,362	13.8	16,964	11.4	14,792	10.8	2,320	10.3	959	12.8	12,970	13.6	159,367	13.1
Other biochemical test results that indicate nutritional abnormality	1,052	0.1	141	0.1	109	0.1	11	< 0.1	6	0.1	274	0.3	1,593	0.1
Clinical, Health, and Medical	69,414	8.6	12,835	8.6	12,059	8.8	2,484	11.1	471	6.3	13,000	13.6	110,263	9.1
Nutrition-related risk conditions	57,170	7.1	10,797	7.3	10,397	7.6	2,170	9.7	391	5.2	9,625	10.1	90,550	7.4
Substance abuse[c]	1,669	0.2	341	0.2	288	0.2	61	0.3	10	0.1	2,263	2.4	4,632	0.4
Other health risks	13,119	1.6	2,168	1.5	1,807	1.3	342	1.5	80	1.1	3,252	3.4	20,768	1.7
Dietary	609,798	75.8	117,760	79.2	108,520	79.0	17,672	78.7	4,074	54.5	62,324	65.2	920,148	75.6
Failure to meet Dietary Guidelines for Americans	135,795	16.9	26,066	17.5	25,330	18.4	3,974	17.7	1,245	16.7	15,197	15.9	207,607	17.1
Inappropriate nutrition practices	484,290	60.2	93,652	63.0	85,005	61.9	14,002	62.4	2,921	39.1	49,078	51.3	728,948	59.9

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 2-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	50,443	6.3	6,327	4.3	5,327	3.9	1,071	4.8	1,880	25.2	18,211	19.1	83,259	6.8
Regression/Transfer/Presumptive eligibility	8,696	1.1	1,555	1.0	1,515	1.1	273	1.2	1,208	16.2	5,785	6.1	19,032	1.6
Breastfeeding mother and infant dyad	925	0.1	205	0.1	190	0.1	39	0.2	1	< 0.1	1,770	1.9	3,130	0.3
Infant of WIC-eligible or mother at risk during pregnancy	2,107	0.3	479	0.3	402	0.3	73	0.3	0	0.0	4,333	4.5	7,394	0.6
Homelessness/Migrancy	4,292	0.5	403	0.3	230	0.2	58	0.3	108	1.4	660	0.7	5,751	0.5
Other nutritional risks	36,454	4.5	4,095	2.8	3,315	2.4	719	3.2	597	8.0	9,375	9.8	54,555	4.5
No Risk Reported	969	0.1	234	0.2	198	0.1	21	0.1	22	0.3	82	0.1	1,526	0.1

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Zero incomes are reported separately and were excluded from Federal Poverty Guidelines calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on income, income period, or size of economic unit.

[c] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.32. Distribution of Income as a Percentage of Federal Poverty Guidelines for 3-Year-Old Child Participants by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 3-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total 3-Year-Old Child Participants	716,806	–	131,597	–	121,136	–	19,584	–	6,368	–	81,195	–	1,076,686	–
Anthropometric	341,244	47.6	60,973	46.3	54,501	45.0	8,934	45.6	2,722	42.7	40,416	49.8	508,790	47.3
Low weight-for-height	51,652	7.2	9,601	7.3	9,386	7.7	1,487	7.6	451	7.1	5,649	7.0	78,226	7.3
High weight-for-height/length	240,203	33.5	42,553	32.3	37,001	30.5	6,047	30.9	1,834	28.8	28,893	35.6	356,531	33.1
Short stature	53,201	7.4	9,240	7.0	8,351	6.9	1,548	7.9	543	8.5	7,453	9.2	80,336	7.5
Inappropriate growth or weight gain pattern	33,620	4.7	5,899	4.5	5,290	4.4	901	4.6	181	2.8	4,353	5.4	50,244	4.7
Low birth weight or premature birth	1,109	0.2	237	0.2	204	0.2	38	0.2	0	0.0	703	0.9	2,291	0.2
Other anthropometric risk	18	< 0.1	5	< 0.1	7	< 0.1	0	0.0	0	0.0	8	< 0.1	38	< 0.1
Biochemical	76,391	10.7	11,631	8.8	9,961	8.2	1,626	8.3	608	9.5	8,573	10.6	108,790	10.1
Hematocrit or hemoglobin below FNS criteria	75,787	10.6	11,553	8.8	9,902	8.2	1,618	8.3	600	9.4	8,386	10.3	107,846	10.0
Other biochemical test results that indicate nutritional abnormality	735	0.1	85	0.1	63	0.1	8	< 0.1	10	0.2	216	0.3	1,117	0.1
Clinical, Health, and Medical	73,161	10.2	13,272	10.1	12,214	10.1	2,546	13.0	449	7.1	12,152	15.0	113,794	10.6
Nutrition-related risk conditions	52,659	7.3	9,731	7.4	9,316	7.7	2,018	10.3	317	5.0	8,118	10.0	82,159	7.6
Substance abuse[c]	1,463	0.2	238	0.2	245	0.2	55	0.3	6	0.1	1,883	2.3	3,890	0.4
Other health risks	22,381	3.1	3,894	3.0	3,199	2.6	579	3.0	135	2.1	4,371	5.4	34,559	3.2
Dietary	529,868	73.9	101,134	76.9	93,340	77.1	14,902	76.1	3,299	51.8	52,300	64.4	794,843	73.8
Failure to meet Dietary Guidelines for Americans	139,589	19.5	26,872	20.4	25,650	21.2	3,941	20.1	1,153	18.1	15,037	18.5	212,242	19.7
Inappropriate nutrition practices	399,831	55.8	76,112	57.8	69,337	57.2	11,254	57.5	2,229	35.0	39,128	48.2	597,891	55.5

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 3-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	44,624	6.2	5,581	4.2	4,620	3.8	994	5.1	1,542	24.2	15,893	19.6	73,254	6.8
Regression/Transfer/Presumptive eligibility	8,230	1.1	1,347	1.0	1,315	1.1	223	1.1	979	15.4	5,158	6.4	17,252	1.6
Breastfeeding mother and infant dyad	694	0.1	150	0.1	119	0.1	38	0.2	0	0.0	1,710	2.1	2,711	0.3
Infant of WIC-eligible or mother at risk during pregnancy	1,722	0.2	358	0.3	316	0.3	65	0.3	0	0.0	3,739	4.6	6,200	0.6
Homelessness/Migrancy	3,852	0.5	366	0.3	222	0.2	54	0.3	92	1.4	702	0.9	5,288	0.5
Other nutritional risks	31,869	4.4	3,692	2.8	2,917	2.4	699	3.6	504	7.9	8,174	10.1	47,855	4.4
No Risk Reported	732	0.1	170	0.1	174	0.1	23	0.1	17	0.3	100	0.1	1,216	0.1

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Zero incomes are reported separately and were excluded from Federal Poverty Guidelines calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on income, income period, or size of economic unit.

[c] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

Table 4.33. Distribution of Income as a Percentage of Federal Poverty Guidelines for 4-Year-Old Child Participants by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 4-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total 4-Year-Old Child Participants	437,787	–	84,125	–	75,883	–	12,182	–	2,975	–	43,539	–	656,491	–
Anthropometric	211,923	48.4	39,702	47.2	34,889	46.0	5,766	47.3	1,234	41.5	22,027	50.6	315,541	48.1
Low weight-for-height	28,423	6.5	5,543	6.6	5,167	6.8	843	6.9	202	6.8	2,740	6.3	42,918	6.5
High weight-for-height/length	154,947	35.4	28,862	34.3	24,918	32.8	4,088	33.6	872	29.3	16,378	37.6	230,065	35.0
Short stature	28,770	6.6	5,076	6.0	4,674	6.2	869	7.1	204	6.9	3,583	8.2	43,176	6.6
Inappropriate growth or weight gain pattern	20,587	4.7	4,014	4.8	3,338	4.4	562	4.6	69	2.3	2,431	5.6	31,001	4.7
Low birth weight or premature birth	472	0.1	108	0.1	103	0.1	14	0.1	2	0.1	369	0.8	1,068	0.2
Other anthropometric risk	9	< 0.1	3	< 0.1	5	< 0.1	1	< 0.1	0	0.0	4	< 0.1	22	< 0.1
Biochemical	32,863	7.5	5,124	6.1	4,417	5.8	694	5.7	223	7.5	3,643	8.4	46,964	7.2
Hematocrit or hemoglobin below FNS criteria	32,596	7.4	5,093	6.1	4,384	5.8	690	5.7	220	7.4	3,584	8.2	46,567	7.1
Other biochemical test results that indicate nutritional abnormality	302	0.1	33	< 0.1	34	< 0.1	6	< 0.1	3	0.1	68	0.2	446	0.1
Clinical, Health, and Medical	49,177	11.2	9,454	11.2	8,481	11.2	1,750	14.4	250	8.4	6,833	15.7	75,945	11.6
Nutrition-related risk conditions	31,578	7.2	6,197	7.4	5,775	7.6	1,251	10.3	161	5.4	4,287	9.8	49,249	7.5
Substance abuse[c]	1,118	0.3	232	0.3	202	0.3	40	0.3	3	0.1	1,111	2.6	2,706	0.4
Other health risks	19,233	4.4	3,519	4.2	2,895	3.8	566	4.6	94	3.2	2,540	5.8	28,847	4.4
Dietary	322,571	73.7	64,499	76.7	57,945	76.4	9,193	75.5	1,581	53.1	26,940	61.9	482,729	73.5
Failure to meet Dietary Guidelines for Americans	90,926	20.8	18,320	21.8	17,146	22.6	2,517	20.7	604	20.3	8,072	18.5	137,585	21.0
Inappropriate nutrition practices	237,186	54.2	47,345	56.3	41,851	55.2	6,839	56.1	994	33.4	19,643	45.1	353,858	53.9

Broad Risk Category and Specific Nutritional Risk	Percent of Federal Poverty Guidelines								Income Reported as Zero[a]		Not Reported[b]		Total 4-Year-Old Children	
	Up to 100%		101% to 130%		131% to 185%		186% and More							
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Other Risks	25,637	5.9	3,404	4.0	2,776	3.7	574	4.7	752	25.3	8,415	19.3	41,558	6.3
Regression/Transfer/Presumptive eligibility	4,840	1.1	850	1.0	825	1.1	149	1.2	480	16.1	2,720	6.2	9,864	1.5
Breastfeeding mother and infant dyad	590	0.1	142	0.2	112	0.1	25	0.2	0	0.0	815	1.9	1,684	0.3
Infant of WIC-eligible or mother at risk during pregnancy	1,384	0.3	313	0.4	256	0.3	50	0.4	0	0.0	2,009	4.6	4,012	0.6
Homelessness/Migrancy	2,236	0.5	240	0.3	128	0.2	32	0.3	34	1.1	264	0.6	2,934	0.4
Other nutritional risks	17,869	4.1	2,126	2.5	1,673	2.2	378	3.1	250	8.4	4,374	10.0	26,670	4.1
No Risk Reported	515	0.1	97	0.1	87	0.1	16	0.1	11	0.4	40	0.1	766	0.1

Notes

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

[a] Zero incomes are reported separately and were excluded from Federal Poverty Guidelines calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on income, income period, or size of economic unit.

[c] The specific nutritional risk of substance abuse is reserved for women, but two State agencies reported this risk for some infants and children.

C. Anthropometric Values

Weight and height (or length) are measured and recorded during the eligibility determination process. Although State agencies have routinely collected these data for years, PC reporting has improved over time. Prior to the changes in nutritional risk standards implemented in 1999, each State agency set its criteria for determining overweight and underweight participants. Since April 1999, FNS has required State agencies to use FNS-issued definitions for nutritional risks. State agencies could elect to implement stricter standards.

Measurements for WIC children 2 and older have always been, and continue to be, compared with the statistical norms in the general population using the CDC growth charts, which are based on standardized distributions developed by the CDC's National Center for Health Statistics (NCHS; CDC, 2016a). Prior to 2014, growth percentiles for infants and 1-year-old children were calculated for PC reports using the CDC growth charts. Beginning with the PC2014 report, measurements for infants and children younger than 2 have been compared against WHO growth charts (WHO, 2006), a change required by the updated anthropometric guidance provided in the May 2011 Memorandum (USDA FNS, 2011). Because of this change in standards, caution should be exercised in comparing growth percentile information for PC2014 and PC2016 with earlier PC reports.

As explained earlier in this chapter, the May 2011 Memorandum introduced a new anthropometric risk criterion, high weight-for-length, for infants and children younger than 2. This new risk criterion is assigned to participants in this age range who are at or above the 97.7th percentile for weight-for-length on sex-specific WHO growth charts. Previously, there was no criterion for this age group to classify a participant with excessive weight-for-length. The memorandum also revised the definitions for underweight/short stature and at risk for underweight/at risk of short stature to include infants and children younger than 2 whose growth is less than or equal to the 2.3rd and 5th percentiles, respectively, on the WHO growth charts (WHO, 2006), rather than less than or equal to the 5th and 10th percentiles, respectively, on the CDC growth charts (CDC, 2016a).

Tables 4.34 through 4.41 report information on anthropometric measures for infants and children. Tables 4.34 and 4.38 display the percentages of infants and children, respectively, who were within the upper and lower limits of the standard distributions between 2014 and 2016. The distributions of infant and child anthropometric data by race and ethnicity are presented in tables 4.35, 4.36, 4.39, and 4.40. Table 4.37 shows the percentages of infants and 1-year-old children who were considered underweight, to have high weight-for-length, and to be of short stature according to FNS criteria based on WHO standardized distributions. For children aged 2 and older, Table 4.41 shows the percentages of those considered underweight and of short stature and those considered overweight and obese. Table 4.41 categorizations were made according to FNS criteria based on NCHS-CDC standardized distributions.

Starting with PC2014, the changes in percentile calculation (CDC versus WHO) and cutoff values for various anthropometric risks affected the categorization of infant and child participants. To aid in making accurate comparisons of WIC infant and child anthropometric measures over time, appendix C provides tabulations based on NCHS-CDC standardized distributions and presents percentile categories based on nutritional risk growth criteria in place prior to PC2014. These appendix tables show anthropometric trends in the WIC infant and child population.

Notable findings for infants, 1-year-old children, and children aged 2 and older follow.

1. Infants and 1-Year-Old Children

- Table 4.37 shows 5.2 percent of infants and 0.6 percent of 1-year-old children were considered underweight, and 2.4 percent of infants and 0.7 percent of 1-year-old children were considered at risk for being underweight. The percentage of infants in the lowest percentile for weight-for-length decreased 0.6 percentage points between 2014 and 2016 (see table 4.34). Appendix table C.4.34 shows this downward trend has continued since 2012. For 1-year-old children in the lower percentiles for weight-for-length, levels remained steady between 2014 and 2016 (see table 4.38).
- The percentages of infants and 1-year-old children classified as high weight-for-length were 6.9 and 12.8 percent, respectively (see table 4.37). Table 4.34 shows the percentages of infants and 1-year-old children who fell into this percentile range has remained constant since the May 2011 Memorandum introduced the high weight-for-length risk criterion for infants and children younger than 2. Appendix table C.4.34 shows the proportion of infants in the higher weight-for-length percentiles has increased since 2012 (for example, infants at the 90th or greater percentile increased from 14.2 percent in 2012 to 15.2 percent in 2016). Appendix table C.4.38 shows the proportion of 1-year-old children in the highest percentile increased slightly between 2014 and 2016 (from 10.2 percent in 2014 to 10.6 percent in 2016) after decreasing between 2012 and 2014 (from 10.9 percent in 2012 to 10.2 percent in 2014).
- Table 4.37 shows 11.8 percent of infants and 6.7 percent of 1-year-old children were classified as being of short stature, and 5.2 percent of infants and 4.5 percent of 1-year-old children were classified as at risk for short stature. The percentages of infants and 1-year-old children in the lowest percentile category for length-for-age increased 0.5 and 0.3 percentage points between 2014 and 2016 (see tables 4.34 and 4.38); this upward trend has continued since 2012 (see appendix tables C.4.34 and C.4.38).
- Across racial categories, Asian-only 1-year-old children were most likely to fall at or below the 5th percentile for weight-for-length and below the 10th percentile for weight-for-age (see table 4.39).
- Native Hawaiian or Other Pacific Islander-only infants and 1-year-old children were most likely to fall at or above the 97.7th percentile for weight-for-length (see tables 4.35 and 4.39).
- Native Hawaiian or Other Pacific Islander-only infants and 1-year-old children were most likely to fall at or above the 95th percentile for weight-for-age (see tables 4.35 and 4.39).

2. Children Aged 2 and Older

- In PC2016, 15.2 percent of children aged 2 and older were considered overweight, and 14.1 percent were considered obese (see table 4.41). The proportion of children aged 2 and older in the 95th or higher percentile for BMI increased by 1.6 percentage points between 2002 and 2008. After falling from 14.7 percent in 2008 to 13.7 percent in 2014, the proportion of children in this percentile range increased slightly in 2016 to 13.9 percent (see appendix table C.4.38).

- In 2016, 3.6 percent of children aged 2 and older were categorized as underweight, and 2.9 percent were at risk of being underweight (see table 4.41). Table 4.38 shows the proportion of children aged 2 and older in the 10th or lower percentile for BMI increased slightly (0.3 percentage points) between 2014 and 2016. Appendix table C.4.38 shows this trend has continued since 2012 (an increase from 6.0 percent in 2012 to 6.3 percent in 2014 and 6.7 in 2016).
- Black or African American-only and Asian-only children aged 2 and older were most likely to fall at or below the 10th percentile for BMI. Asian-only children aged 2 and older were most likely to fall below the 10th percentile for weight-for-age, and along with Native Hawaiian or Other Pacific Islander-only children, at or below the 10th percentile for height-for-age (see table 4.39).
- American Indian or Alaska Native-only children aged 2 and older were more likely to fall at or above the 85th percentile for BMI, and along with Native Hawaiian or Other Pacific Islander-only children, at or above the 95th percentile for weight-for-age (see table 4.39).

In general, findings on weight-for-age by race and weight-for-length by race for infants and children are consistent with data presented in WIC PC reports since 1992.

Table 4.42 presents information on anthropometric measurements for breastfeeding and postpartum women. The table uses BMI values, which are based on the relationship of weight to height, and applies FNS-issued criteria based on National Heart, Lung, and Blood Institute standards for weight status (National Institutes of Health [NIH], National Heart, Lung, and Blood Institute [NHLBI], 1998). The height and weight measurements used to calculate BMI in table 4.42 are the values reported by State agencies for PC2016. These measurements represent a woman's weight and height as of the reported date of measurement, typically at certification or within the current certification. Breastfeeding women 6 or more months postpartum were determined to be at risk based on their BMI values as of the date of measurement; women less than 6 months postpartum were determined to be at risk based on their prepregnancy BMI.

According to FNS-issued criteria, women with a BMI value of less than 18.5 are considered underweight, and women with a BMI value greater than or equal to 25.0 are considered overweight. Using these BMI cutoffs, 72.4 percent of breastfeeding women and 74.4 percent of postpartum women were overweight, and less than 1 percent of women in both categories were underweight. Prior to 2004, PC reports defined women with a BMI of less than 19.8 as underweight and those with a BMI greater than or equal to 26.1 as overweight. Application of these more stringent measures suggests comparisons of PC2016 with reports earlier than PC2004 should be made with caution.

Although more than 70.0 percent of postpartum and breastfeeding women were found to be overweight according to anthropometric measures, only about half of the women in those categories were assigned nutritional risks related to being overweight (see table 4.6). These differences between the incidence of high weight-for-height in reported anthropometric risks versus reported nutritional risks could be attributed to two factors. First, and more importantly, for some participants who might have been overweight according to FNS-issued criteria, WIC staff might have identified other risks for those participants and determined those risks were more important or urgent to record. Second, although most State agencies use the FNS definition of overweight, in 2016, some State agencies might have chosen to use higher percentile cutoffs than those issued by FNS, which would have led to fewer participants classified as overweight in table 4.6 (nutritional risks) compared with table 4.42 (anthropometric risks). The nutritional risks are based on State agency-specific criteria defining

overweight, whereas the anthropometric risks are based on the national standard. State agency-specific variations in the criteria for overweight coupled with State agency differences in the WIC population could have resulted in differences in the incidence of high weight-for-height between the two measures.

Table 4.34. Percentage of Infant Participants by Selected Anthropometric Measures: 2014, 2016

WHO Percentiles	Percent of Infant Participants	
	2014	2016
Total Infants *(N)*	2,141,988	2,056,848
Weight-for-Length[a]		
≤ 2.3[c]	5.8	5.2
≤ 5[c]	8.3	7.5
≤ 10	12.6	11.7
≥ 90	18.6	18.9
≥ 95	11.3	11.5
≥ 97.7[c]	6.8	6.9
Invalid or unreported anthropometric data	4.5	4.4
Weight-for-Age[b]		
< 3	7.9	7.9
< 5	9.9	10.1
< 10	14.9	15.0
≥ 90	8.6	8.5
≥ 95	4.2	4.2
≥ 97	2.6	2.6
Invalid or unreported anthropometric data	1.9	2.0
Length-for-Age[a,b]		
≤ 2.3[c]	11.3	11.8
≤ 5[c]	16.4	17.0
≤ 10	22.9	23.8
Invalid or unreported anthropometric data	2.6	2.6

Notes

Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

Percentiles reported in this table are cumulative. For example, the < 5th category includes infants in the ≤ 2.3rd percentile, and the ≥ 95th category includes infants in the ≥ 97.7th percentile.

[a] It is assumed that length for an infant is recumbent length.

[b] Age was calculated in months using the birth date and the date length and weight were measured.

[c] FNS-issued risk criteria

Table 4.35. Percentage of Race of Infant Participants by Selected Anthropometric Measures

WHO Percentiles	American Indian or Alaska Native Only	Asian Only	Black or African American Only	Native Hawaiian or Other Pacific Islander Only	White Only	Two or More Races	Race Not Reported
Total Infants *(N)*	170,130	68,222	467,517	15,260	1,196,174	134,580	4,965
Weight-for-Length[a]							
≤ 2.3[c]	4.9	6.6	6.6	4.6	4.6	4.5	2.4
≤ 5[c]	7.2	9.5	9.3	6.5	6.9	6.7	3.6
≤ 10[c]	11.1	14.5	13.9	9.8	10.9	10.4	5.5
≥ 90	21.7	15.9	17.7	24.5	19.1	20.0	9.9
≥ 95	13.5	9.5	11.0	15.6	11.5	12.1	6.0
≥ 97.7[c]	8.4	5.5	6.7	9.5	6.8	7.3	3.8
Invalid or unreported anthropometric data	3.7	3.4	6.2	3.2	3.7	4.1	54.7
Weight-for-Age[b]							
< 3	5.4	6.5	10.7	6.0	7.4	7.5	4.3
< 5	7.1	8.6	13.3	7.6	9.4	9.6	5.1
< 10	11.1	13.7	19.2	11.5	14.2	14.3	7.1
≥ 90	10.9	6.9	7.0	14.3	8.6	9.1	5.0
≥ 95	5.5	3.1	3.6	8.0	4.2	4.6	2.9
≥ 97	3.5	1.9	2.3	5.5	2.6	2.9	1.9
Invalid or unreported anthropometric data	1.7	1.4	2.4	1.6	1.8	1.9	54.4

WHO Percentiles	American Indian or Alaska Native Only	Asian Only	Black or African American Only	Native Hawaiian or Other Pacific Islander Only	White Only	Two or More Races	Race Not Reported
Length-for-Age[a,b]							
≤ 2.3[c]	8.4	9.3	15.0	9.7	11.2	11.5	5.3
≤ 5[c]	13.0	14.1	20.8	14.4	16.3	16.7	7.6
≤ 10[c]	18.8	20.5	27.8	20.9	23.2	23.7	10.7
Invalid or unreported anthropometric data	2.2	1.9	3.5	2.1	2.2	2.5	54.9

Notes

Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).

WHO reference curves are based on data from the WHO Multicentre Growth Reference Study conducted from 1997 to 2003 (WHO, 2006).

Percentiles reported in this table are cumulative. For example, the < 5th category includes infants in the ≤ 2.3rd percentile, and the ≥ 95th category includes infants in the ≥ 97.7th percentile.

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

[a] It is assumed that length for an infant is recumbent length.

[b] Age was calculated in months using the birth date and the date length and weight were measured.

[c] FNS-issued risk criteria

Table 4.36. Distribution of Ethnicity of Infant Participants by Selected Anthropometric Measures

WHO Percentiles	Hispanic	Non-Hispanic/Latino	Ethnicity Not Reported
Total Infants *(N)*	798,694	1,256,484	1,670
Weight-for-Length[a]			
≤ 2.3[c]	4.3	5.7	0.7
≤ 5[c]	6.4	8.3	1.3
≤ 10[c]	10.1	12.7	2.5
≥ 90	21.4	17.4	7.4
≥ 95	13.1	10.5	4.7
≥ 97.7[c]	7.9	6.3	3.7
Invalid or unreported anthropometric data	3.6	4.8	69.3
Weight-for-Age[b]			
< 3	6.0	9.2	2.3
< 5	7.7	11.6	3.0
< 10	11.8	17.1	4.4
≥ 90	9.7	7.7	4.3
≥ 95	4.7	3.8	2.6
≥ 97	3.0	2.4	2.0
Invalid or unreported anthropometric data	1.7	2.1	68.8
Length-for-Age[a,b]			
≤ 2.3[c]	9.9	13.0	2.6
≤ 5[c]	14.8	18.4	4.4
≤ 10[c]	21.3	25.4	6.8
Invalid or unreported anthropometric data	2.1	2.9	69.0

Notes
Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).
WHO reference curves are based on data from the WHO Multicentre Growth Reference Study conducted from 1997 to 2003 (WHO, 2006).
Percentiles reported in this table are cumulative. For example, the < 5th category includes infants in the ≤ 2.3rd percentile, and the ≥ 95th category includes infants in the ≥ 97.7th percentile.
WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).
[a] It is assumed that length for an infant is recumbent length.
[b] Age was calculated in months using the birth date and the date length and weight were measured.
[c] FNS-issued risk criteria

Table 4.37. Distribution of Infant and 1-Year-Old Child Participants by Risk According to FNS-Issued Nutritional Risk Criteria for Selected Anthropometric Measures

FNS-Issued Nutritional Risk Criteria	Infants		1-Year-Old Children	
	Number	%	Number	%
Total Infant and 1-Year-Old Child Participants	2,056,848	–	1,750,232	–
Weight-for-Length[a]				
Underweight	106,139	5.2	11,133	0.6
At risk of being underweight	49,017	2.4	11,445	0.7
High weight-for-length	142,260	6.9	223,884	12.8
Weight or length not reported	42,435	2.1	21,384	1.2
Weight and length not reported	31,635	1.5	17,134	1.0
Length-for-Age[b]				
Short stature	241,762	11.8	116,820	6.7
At risk of short stature	107,073	5.2	78,242	4.5
Height not reported	39,086	1.9	19,879	1.1

Notes
Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).
WHO reference curves are based on data from the WHO Multicentre Growth Reference Study conducted from 1997 to 2003 (WHO, 2006).
Age was calculated in months using the birth date and the date length and weight were measured.
[a] Infants and 1-year-old children who fall at or below the 2.3rd percentile for weight-for-length meet the FNS-issued criteria for underweight for age or length. Infants and 1-year-old children who fall above the 2.3rd percentile and at or below the 5th percentile are considered at risk of being underweight. Infants and 1-year old children who fall at or above the 97.7th percentile for weight-for-length meet the FNS-issued criteria for high weight-for-length.
[b] Infants and 1-year-old children who fall at or below the 2.3rd percentile for length-for-age meet the FNS-issued criteria for short stature. Infants and 1-year-old children who fall above the 2.3rd percentile and at or below the 5th percentile are considered at risk of short stature.

Table 4.38. Distribution of Age of Child Participants by Selected Anthropometric Measures: 2014, 2016

WHO/NCHS-CDC Percentiles	1 Year (WHO Percentiles)		2+ Years (NCHS-CDC Percentiles)	
	2014	2016	2014	2016
Total Children *(N)*	1,819,921	1,750,232	3,138,255	2,949,630
Weight-for-Length/BMI[a]				
≤ 2.3[c]	0.6	0.6	2.0	2.1
≤ 5[c]	1.3	1.3	3.4	3.6
≤ 10[c]	2.7	2.7	6.2	6.5
≥ 85[d]	40.0	39.9	29.5	29.3
≥ 90	31.3	31.3	22.3	22.2
≥ 95[d]	20.5	20.6	13.9	14.1
≥ 97.7[c]	12.7	12.8	8.6	9.0
Invalid or unreported anthropometric data	1.4	1.5	2.3	1.5
Weight-for-Age[b]				
< 3	1.5	1.5	2.2	2.4
< 5	2.3	2.4	3.3	3.7
< 10	4.5	4.7	6.2	6.8
≥ 90	21.2	21.1	20.3	19.9
≥ 95	12.7	12.7	12.6	12.6
≥ 97	8.8	8.8	9.0	9.2
Invalid or unreported anthropometric data	1.1	1.2	1.7	1.2
Height/Length-for-Age[b]				
≤ 2.3[c]	6.4	6.7	1.9	2.1
≤ 5[c]	10.8	11.1	3.7	4.0
≤ 10[c]	17.5	18.0	7.5	7.9
≥ 90	9.1	9.0	13.6	13.5
≥ 95	5.3	5.3	7.2	7.3
≥ 97	3.5	3.5	4.7	4.8
Invalid or unreported anthropometric data	1.2	1.4	1.8	1.3

Notes

Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).

Anthropometric criteria for children aged 2 and older were calculated using programming code for pediatric anthropometry developed by CDC based on current growth charts (Kuczmarski et al., 2002).

This table excludes 333 children for whom age at certification could not be calculated.

Percentiles reported in this table are cumulative. For example, the < 5th category includes children in the ≤ 2.3rd percentile, and the ≥ 95th category includes children in the ≥ 97.7th percentile.

[a] Weight-for-length was used to calculate percentiles for 1-year-old children. BMI was used to calculate percentiles for children aged 2 and older.

[b] Age was calculated in months using the birth date and the date height/length and weight were measured.

[c] FNS-issued risk criteria

[d] Children aged 2 and older who fall at or above the 85th percentile and below the 95th percentile are considered overweight. Children aged 2 and older who fall at or above the 95th percentile are considered obese.

Table 4.39. Percentage of Race and Age of Child Participants by Selected Anthropometric Measures

WHO/ NCHS-CDC Percentiles	American Indian or Alaska Native Only		Asian Only		Black or African American Only		Native Hawaiian or Other Pacific Islander		White Only		Two or More Races		Race Not Reported	
	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years
Total Children *(N)*	167,801	365,741	59,841	111,171	366,319	562,950	13,227	24,361	1,026,808	1,685,831	113,837	195,630	2,399	3,946
Weight-for-Length/BMI[a]														
≤ 2.3[c]	0.7	2.0	1.2	3.6	0.8	3.1	0.5	1.8	0.4	1.6	0.5	1.8	1.0	2.2
≤ 5[c]	1.5	3.4	2.5	5.9	1.7	5.2	1.2	3.1	1.0	2.9	1.2	3.3	1.4	3.2
≤ 10[c]	3.0	6.1	5.2	10.4	3.5	9.0	2.6	5.6	2.2	5.5	2.5	6.2	2.8	5.1
≥ 85[d]	39.8	33.6	27.3	21.6	37.0	24.7	43.5	31.9	41.5	30.4	40.6	28.9	19.3	18.7
≥ 90	31.5	26.2	20.2	16.1	28.9	18.4	34.5	24.0	32.6	23.0	32.1	21.8	14.7	14.2
≥ 95[d]	21.0	17.4	12.3	10.0	19.1	11.4	23.4	15.2	21.3	14.6	21.3	13.7	10.4	9.4
≥ 97.7[c]	13.4	11.6	7.1	6.2	11.9	7.0	14.7	9.6	13.1	9.3	13.3	8.6	6.6	6.2
Invalid or unreported anthropometric data	1.9	1.8	1.0	1.1	1.5	1.4	1.2	1.4	1.3	1.3	1.6	1.5	45.1	36.8
Weight-for-Age[b]														
< 3	1.3	1.9	2.3	4.0	1.8	2.5	1.6	3.0	1.4	2.3	1.4	2.2	1.1	1.5
< 5	2.1	2.9	3.6	6.1	2.7	3.8	2.4	4.3	2.2	3.6	2.2	3.4	1.5	2.3
< 10	4.2	5.6	7.4	10.8	5.3	6.8	4.7	7.5	4.4	6.7	4.3	6.4	3.2	5.0
≥ 90	22.1	23.2	14.3	14.3	21.2	20.6	25.9	23.6	21.1	19.2	22.4	20.4	10.6	12.0
≥ 95	13.5	15.4	8.1	8.8	12.9	12.6	16.3	15.3	12.6	12.1	13.7	12.8	6.7	7.7
≥ 97	9.5	11.5	5.5	6.3	9.1	9.0	11.7	11.2	8.6	8.8	9.6	9.3	4.7	5.5
Invalid or unreported anthropometric data	1.7	1.5	0.8	0.9	1.0	1.0	0.9	1.2	1.0	1.1	1.3	1.3	45.6	37.4

WHO/ NCHS-CDC Percentiles	American Indian or Alaska Native Only		Asian Only		Black or African American Only		Native Hawaiian or Other Pacific Islander		White Only		Two or More Races		Race Not Reported	
	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years
Height/Length-for-Age[b]														
≤ 2.3[c]	5.6	1.8	6.5	2.5	6.6	1.6	7.0	2.7	6.9	2.2	6.1	1.8	3.7	1.6
≤ 5[c]	9.7	3.5	11.1	5.0	10.6	3.1	11.2	5.4	11.6	4.3	10.3	3.6	5.8	2.9
≤ 10[c]	16.0	7.2	18.1	10.0	16.8	6.1	17.2	9.7	18.8	8.5	16.8	7.2	9.0	5.3
≥ 90	10.1	14.4	9.5	11.3	11.4	19.1	11.9	16.8	7.7	11.4	9.7	14.5	5.7	8.3
≥ 95	6.1	7.8	5.8	6.0	7.0	10.9	7.4	9.9	4.3	5.8	5.7	7.9	3.4	4.4
≥ 97	4.1	5.3	3.8	3.9	4.7	7.5	5.2	6.9	2.8	3.7	3.8	5.2	2.4	2.9
Invalid or unreported anthropometric data	1.6	1.5	1.0	1.0	1.4	1.3	1.1	1.1	1.1	1.2	1.4	1.4	45.9	37.5

Notes

Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).

WHO reference curves are based on data from the WHO Multicentre Growth Reference Study conducted from 1997 to 2003 (WHO, 2006).

Anthropometric criteria for children aged 2 and older were calculated using programming code for pediatric anthropometry developed by CDC based on current growth charts (Kuczmarski et al., 2002).

NCHS-CDC reference curves are based on data from a series of national health examination surveys conducted by NCHS from 1963 to 1994 (CDC, 2002).

Age is not reported for 21 American Indian or Alaska Native children, 5 Asian children, 94 Black or African American children, 3 Native Hawaiian or Other Pacific Islander children, 166 White children, 43 children for whom two or more races were reported, and 1 child missing race information.

Percentiles reported in this table are cumulative. For example, the < 5th category includes children in the ≤ 2.3rd percentile, and the ≥ 95th category includes children in the ≥ 97.7th percentile.

[a] Weight-for-length was used to calculate percentiles for 1-year-old children. BMI was used to calculate percentiles for children aged 2 and older.

[b] Age was calculated in months using the birth date and the date length and weight were measured.

[c] FNS-issued risk criteria

[d] Children aged 2 and older who fall at or above the 85th percentile and less than the 95th percentile are considered overweight. Children aged 2 and older who fall at or above the 95th percentile are considered obese.

Table 4.40. Percentage of Ethnicity and Age of Child Participants by Selected Anthropometric Measures

WHO/NCHS-CDC Percentiles	Hispanic/Latino		Non-Hispanic/Latino		Ethnicity Not Reported	
	1 Year	2+ Years	1 Year	2+ Years	1 Year	2+ Years
Total Children *(N)*	732,464	1,349,291	1,017,110	1,599,150	658	1,189
Weight-for-Length/BMI[a]						
≤ 2.3[c]	0.5	1.6	0.7	2.4	1.5	1.8
≤ 5[c]	1.0	2.9	1.4	4.1	1.9	2.8
≤ 10[c]	2.2	5.4	3.0	7.4	2.8	4.4
≥ 85[d]	42.2	32.7	38.1	26.3	12.0	16.0
≥ 90	33.4	25.4	29.8	19.5	8.6	12.6
≥ 95[d]	22.1	16.6	19.4	11.9	6.9	8.9
≥ 97.7[c]	13.9	10.9	11.9	7.3	4.5	5.8
Invalid or unreported anthropometric data	1.4	1.5	1.5	1.4	63.8	48.7
Weight-for-Age[b]						
< 3	1.2	2.0	1.7	2.6	0.9	1.0
< 5	1.9	3.2	2.7	4.0	1.5	1.8
< 10	3.9	6.1	5.2	7.2	3.6	3.3
≥ 90	22.0	21.4	20.4	18.6	6.6	10.1
≥ 95	13.3	14.0	12.2	11.3	5.0	6.5
≥ 97	9.3	10.4	8.4	8.0	3.3	5.0
Invalid or unreported anthropometric data	1.1	1.2	1.1	1.1	63.8	48.7
Height/Length-for-Age[b]						
≤ 2.3[c]	6.2	2.0	6.9	2.0	3.5	1.3
≤ 5[c]	10.7	3.9	11.4	4.0	4.7	2.1
≤ 10[c]	17.7	8.0	18.1	7.8	6.0	3.3
≥ 90	8.3	12.2	9.4	14.5	3.8	7.1
≥ 95	4.8	6.4	5.5	7.9	2.2	4.2
≥ 97	3.1	4.2	3.7	5.3	1.3	2.6
Invalid or unreported anthropometric data	1.1	1.2	1.4	1.3	63.8	48.8

Notes
Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).
WHO reference curves are based on data from the WHO Multicentre Growth Reference Study conducted from 1997 to 2003 (WHO, 2006).
Anthropometric criteria for children aged 2 and older were calculated using programming code for pediatric anthropometry developed by CDC based on current growth charts (Kuczmarski et al., 2002).
NCHS-CDC reference curves are based on data from a series of national health examination surveys conducted by NCHS from 1963 to 1994 (CDC, 2002).
Age is not reported for 109 Hispanic/Latino children and 224 non-Hispanic/Latino children.
Percentiles reported in this table are cumulative. For example, the < 5th category includes children in the ≤ 2.3rd percentile, and the ≥ 95th category includes children in the ≥ 97.7th percentile.
[a] Weight-for-length was used to calculate percentiles for 1-year-old children. BMI was used to calculate percentiles for children aged 2 and older.
[b] Age was calculated in months using the birth date and the date length and weight were measured.
[c] FNS-issued risk criteria
[d] Children aged 2 and older who fall at or above the 85th percentile and below the 95th percentile are considered overweight. Children aged 2 and older who fall at or above the 95th percentile are considered obese.

Table 4.41. Distribution of Child Participants Aged 2 and Older by Risk According to FNS-Issued Nutritional Risk Criteria for Anthropometric Measures

FNS-Issued Mandated Nutritional Risk Criteria	2 Years[c]		3 Years		4 Years		Total Children 2+ Years Old	
	Number	%	Number	%	Number	%	Number	%
Total Children Aged 2 and Older *(N)*	1,216,453	–	1,076,686	–	656,491	–	2,949,630	–
BMI[a]	–	–	–	–	–	–	–	–
Underweight	41,833	3.4	40,836	3.8	22,521	3.4	105,190	3.6
At risk for underweight	35,303	2.9	32,718	3.0	17,921	2.7	85,942	2.9
Overweight	183,006	15.0	160,951	14.9	103,196	15.7	447,153	15.2
Obese	158,344	13.0	154,412	14.3	103,969	15.8	416,725	14.1
Weight or height not reported	16,497	1.4	13,248	1.2	7,692	1.2	37,437	1.3
Weight and height not reported	13,470	1.1	10,779	1.0	6,286	1.0	30,535	1.0
Height-for-Age[b]	–	–	–	–	–	–	–	–
Short stature	57,500	4.7	39,618	3.7	20,825	3.2	117,943	4.0
At risk of short stature	55,062	4.5	38,934	3.6	21,531	3.3	115,527	3.9
Height not reported	15,509	1.3	12,245	1.1	6,938	1.1	34,692	1.2

Notes

Anthropometric criteria for children aged 2 and older were calculated using programming code for pediatric anthropometry developed by CDC based on current growth charts (Kuczmarski et al., 2002).

NCHS-CDC reference curves are based on data from a series of national health examination surveys conducted by NCHS from 1963 to 1994 (CDC, 2002).

This table excludes 333 children for whom age at certification could not be calculated.

Age was calculated in months using the birth date and the date length and weight were measured.

[a] Children aged 2 and older who fall at or below the 5th percentile for BMI are considered underweight. Children aged 2 and older who fall above the 5th percentile and at or below the 10th percentile for BMI are considered at risk of being underweight. Children aged 2 and older who fall at or above the 85th percentile and below the 95th percentile for BMI are considered overweight. Children aged 2 and older who fall at or above the 95th percentile for BMI are considered obese.

[b] Children aged 2 and older who fall at or below the 5th percentile for height-for-age meet the FNS criteria for short stature. Children aged 2 and older who fall above the 5th percentile and at or below the 10th percentile for height-for-age are considered at risk for short stature.

[c] Weight-for-length percentile is used for children aged 2 at certification who were younger than 2 on the date height and weight were measured.

Table 4.42. Distribution of Breastfeeding and Postpartum Women Participants by Risk According to FNS-Issued Nutritional Risk Criteria for Anthropometric Measures

FNS-Issued Nutritional Risk Criteria	Breastfeeding Women		Postpartum Women	
	Number	%	Number	%
Total Breastfeeding and Postpartum Women	685,047	–	572,717	–
Current Weight-for-Height				
Underweight[a]	5,405	0.8	5,050	0.9
Overweight[a]	495,727	72.4	426,356	74.4
Weight not reported	11,394	1.7	10,140	1.8
Height not reported	8,849	1.3	7,999	1.4
Weight or height not reported	12,451	1.8	11,337	2.0
Weight and height not reported	7,792	1.1	6,802	1.2

Note

[a] According to FNS-issued criteria based on NHLBI weight standards, women with a BMI less than 18.5 are considered underweight, and women with a BMI greater than or equal to 25.0 are considered overweight (NIH NHLBI, 1998). Prior to PC2004, FNS defined women with a BMI less than 19.8 as underweight and women with a BMI greater than or equal to 26.1 as overweight.

D. Blood Measures

Beginning in April 1999, FNS established national standards for determining nutritional risk using hemoglobin and hematocrit measures based on CDC recommendations (CDC, 1998). Table 4.43 reports the FNS-issued criteria for different categories of WIC participants. Comparisons of data from PC2000 and later reports with earlier WIC PC reports should be made with caution because of two policy changes: (1) prior to 2000, State agencies could set their own criteria for hemoglobin and hematocrit measures, and (2) CDC cutoffs changed slightly between PC1998 and PC2000.

As part of the MDS for PC2016, State agencies reported hemoglobin and hematocrit values for women and children as well as for infants aged 9 months or older. Blood measures were reported for 70.7 percent of all participants (see table 4.44). Most of the missing values were for infants, who are not required to undergo hematological testing unless they are at least 9 months old when they are certified for WIC benefits. Values may also be missing for some children who were recertified; FNS does not require children aged 2 to 4 who had normal blood test values within the 6 months prior to certification to be tested again for a year. In these cases, State agency information systems may report blood measures as missing. Unreported blood measures for women reflect, in part, that WIC policy allows participants to complete blood tests within 90 days of certification.

Tables 4.45 and 4.46 provide information on WIC participants who fell below the FNS-issued hematologic standards for anemia. One-quarter (25.7 percent) of all WIC women were anemic. Anemia rates for postpartum women were high (38.9 percent). After a gradual increase from 35.3 percent in 2002 to 38.5 percent in 2012, anemia rates for postpartum women dropped slightly in 2014 to 38.0 percent but increased again in 2016. Anemia rates for breastfeeding women increased more swiftly than those for postpartum women during the same time period, from 24.5 percent in 2002 to 34.2 percent in 2012, but fell to 33.4 percent in 2014 and 33.1 percent in 2016. For children, anemia rates decreased with age, from 16.6 percent among 1-year-olds to 7.4 percent among 4-year-olds. Although percentages reported here must be treated as representative of lower bound estimates of the prevalence of anemia in the WIC population, because participants with absent blood test data were excluded from the numerator but not the denominator when calculating the rate, these estimates may be close to the true values. Since FNS does not require children aged 2 to 4 who had normal hematocrit and hemoglobin values within the 6 months prior to certification to be tested, unreported data are likely to be concentrated among children who had normal blood values.

Information on anemia by race and ethnicity appears in tables 4.47 through 4.50. Interpretation of these data must include consideration of unreported data, which were more common for American Indian or Alaska Native-only and multiracial WIC women than women in other racial and ethnic categories. In PC2016, Black or African American-only women and children displayed the highest reported levels of anemia (39.5 percent of women and 20.8 percent of children), consistent with previous PC reports. American Indian or Alaska Native-only WIC women and child participants reported the lowest levels of anemia (19.2 percent, and 8.5 percent, respectively). Across racial and ethnic categories, the percentage of anemic children measured against FNS criteria was greatest for 1-year-olds and then decreased with age.

Table 4.43. FNS-Issued Nutritional Risk Eligibility for Hemoglobin and Hematocrit Levels by Trimester for Pregnant Women Participants and by Age for Breastfeeding and Postpartum Women Participants and Child Participants

Participant Category	FNS-Issued Nutritional Risk Criteria
Hemoglobin	
Pregnant Women	
First trimester	11.0
Second trimester	10.5
Third trimester	11.0
Breastfeeding Women and Postpartum Women	
Younger than age 15	11.8
15–17	12.0
18 and older	12.0
Children	
1 year old	11.0
2–4 years old	11.1
Hematocrit	
Pregnant Women	
First trimester	33.0
Second trimester	32.0
Third trimester	33.0
Breastfeeding Women and Postpartum Women	
Younger than age 15	35.7
15–17	35.9
18 and older	35.7
Children	
1 year old	32.9
2–4 years old	33.0

Notes
FNS-issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998). Participants with blood measures below the cutoff values are considered to be at risk.
Hemoglobin values are reported in grams per deciliter. Hematocrit values are reported as percentages. Values are reported for nonsmoking women with no adjustments for altitude. States can choose to use values with adjustments for smoking and altitude.

Table 4.44. Percentage of Participants in Participant Category by Specific Types of Hematological Measures

Types of Measure	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants[a]	Children	Total Participants
Total Participants *(N)*	800,665	685,047	572,717	2,058,429	2,056,848	4,700,195	8,815,472
Participants With Test Report for—	–	–	–	–	–	–	–
Hemoglobin	80.6	82.4	85.3	82.5	6.0	81.2	63.9
Hematocrit	2.5	3.6	2.8	2.9	0.2	2.8	2.2
Hemoglobin and hematocrit	9.9	8.3	6.2	8.4	0.4	4.7	4.6
Blood Measure Not Reported	7.0	5.6	5.7	6.2	93.4	11.3	29.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes

Percentages may not add to 100.0 because of rounding.

[a] WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday). WIC regulations permit State and local agencies to dispense with hematological testing for infants younger than 9 months as well as for children whose test results are found to be within normal ranges at the last certification. However, blood tests should be performed on such children at least once in every 12-month period.

Table 4.45. Distribution of Women Participants by Blood Measures Below FNS-Issued Nutritional Risk Criteria for Hematologic Standards

Hematologic Standard	First Trimester		Second Trimester		Third Trimester		Not Reported[a]		Breastfeeding Women		Postpartum Women		Total Women	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Women *(N)*	449,961	–	274,436	–	75,031	–	1,237	–	685,047	–	572,717	–	2,058,429	–
FNS-Issued Nutritional Risk Criteria	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hemoglobin	32,052	7.1	25,302	9.2	19,374	25.8	0	0.0	215,365	31.4	214,551	37.5	506,644	24.6
Hematocrit	590	0.1	775	0.3	678	0.9	0	0.0	11,230	1.6	8,387	1.5	21,660	1.1
Blood Measure Not Reported[b]	28,694	6.4	20,170	7.3	6,577	8.8	498	40.3	38,723	5.7	32,879	5.7	127,541	6.2

Notes

For the percentage of women with hematologic test results that fell below FNS nutritional risk criteria, the calculation denominators included women for whom no data were reported, so the percentages reported here represent lower bounds.

Values reported here are additive; hemoglobin and hematocrit are mutually exclusive categories. For example, in April 2016, blood test values reported for 25.7 percent (or 528,304) of WIC women met the FNS-issued criteria for anemia. Participants with blood measures below the cutoff values are considered to be at risk.

FNS-issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998)

[a] "Not reported" indicates the numbers and percentage of participants for whom data were not reported on expected date of delivery or weeks gestation.

[b] "Not reported" indicates the numbers and percentage of participants for whom data were not reported on blood measures.

Table 4.46. Distribution of Age of Child Participants at Blood Measurement by Blood Measures Below FNS-Issued Nutritional Risk Criteria for Hematologic Standards

Hematologic Standard	1 Year		2 Years		3 Years		4 Years		Age Not Reported		Total Children	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Children *(N)*	1,750,232	–	1,216,453	–	1,076,686	–	656,491	–	333	–	4,700,195	–
FNS-Issued Nutritional Risk Criteria	–	–	–	–	–	–	–	–	–	–	–	–
Hemoglobin	284,263	16.2	155,500	12.8	104,747	9.7	48,211	7.3	0	0.0	592,721	12.6
Hematocrit	7,673	0.4	2,889	0.2	2,017	0.2	724	0.1	0	0.0	13,303	0.3
Blood Measure Not Reported[a]	178,345	10.2	155,211	12.8	125,585	11.7	72,630	11.1	83	24.9	531,854	11.3

Notes

For the percentage of children with hematologic test results that fell below FNS nutritional risk criteria, the calculation denominators included children for whom no data were reported, so the percentages reported here represent lower bounds.

Values reported here are additive; hemoglobin and hematocrit are mutually exclusive categories. For example, in April 2016, blood test values for 12.9 percent (or 606,024) of WIC children met the FNS-issued criteria for anemia.

WIC regulations permit State and local agencies to dispense with hematological testing for infants younger than 9 months as well as for children whose test results are found to be within normal ranges at the last certification. However, blood tests should be performed on such children at least once in every 12-month period.

FNS-issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998). Participants with blood measures below the cutoff values are considered to be at risk.

[a] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on blood measures.

Table 4.47. Distribution of Race of Women Participants by Anemia Level

Anemia Level	American Indian or Alaska Native Only		Asian Only		Black or African American Only		Native Hawaiian or Pacific Islander		White Only		Two or More Races		Race Not Reported		Total Women	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Women	203,005	–	78,365	–	432,494	–	17,031	–	1,259,211	–	64,660	–	3,663	–	2,058,429	–
Below FNS-issued nutritional risk criteria	39,066	19.2	19,720	25.2	170,848	39.5	4,469	26.2	278,898	22.1	14,845	23.0	458	12.5	528,304	25.7
Not reported[a]	22,834	11.2	6,256	8.0	24,043	5.6	1,155	6.8	66,286	5.3	5,877	9.1	1,829	49.9	128,280	6.2
Pregnant Women	83,909	–	29,203	–	161,859	–	6,217	–	492,947	–	25,186	–	1,344	–	800,665	–
Below FNS-issued nutritional risk criteria	4,664	5.6	2,447	8.4	33,072	20.4	664	10.7	35,678	7.2	2,163	8.6	83	6.2	78,771	9.8
Not reported[a]	13,349	15.9	2,940	10.1	8,663	5.4	483	7.8	27,959	5.7	2,759	11.0	525	39.1	56,678	7.1
Breastfeeding Women	72,623	–	31,751	–	124,781	–	6,384	–	426,158	–	22,184	–	1,166	–	685,047	–
Below FNS-issued nutritional risk criteria	20,520	28.3	10,771	33.9	58,694	47.0	2,148	33.6	127,623	29.9	6,628	29.9	211	18.1	226,595	33.1
Not reported[a]	5,610	7.7	2,207	7.0	7,076	5.7	411	6.4	21,055	4.9	1,814	8.2	550	47.2	38,723	5.7
Postpartum Women	46,473	–	17,411	–	145,854	–	4,430	–	340,106	–	17,290	–	1,153	–	572,717	–
Below FNS-issued nutritional risk criteria	13,882	29.9	6,502	37.3	79,082	54.2	1,657	37.4	115,597	34.0	6,054	35.0	164	14.2	222,938	38.9
Not reported[a]	3,875	8.3	1,109	6.4	8,304	5.7	261	5.9	17,272	5.1	1,304	7.5	754	65.4	32,879	5.7

Notes

For the percentage of women with hematologic test results that fell below FNS nutritional risk criteria, the calculation denominators included women for whom no data were reported, so the percentages reported here represent lower bounds.

Values reported here are additive; hemoglobin and hematocrit are mutually exclusive categories.

FNS-issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998). Participants with blood measures below the cutoff values are considered to be at risk.

[a] "Not reported" indicates the number and percentage of participants by participant category for whom data were not reported on blood measures. For pregnant women, the category also includes participants missing data on expected date of delivery or weeks gestation. For breastfeeding and postpartum women, the category includes participants missing data on age.

Table 4.48. Distribution of Ethnicity of Women Participants by Anemia Level

Anemia Level	Hispanic		Non-Hispanic/Latino		Ethnicity Not Reported		Total Women	
	Number	%	Number	%	Number	%	Number	%
Total Women	805,171	–	1,252,165	–	1,093	–	2,058,429	–
Below FNS-issued nutritional risk criteria	188,161	23.4	340,039	27.2	104	9.5	528,304	25.7
Not reported[a]	57,754	7.2	69,846	5.6	680	62.2	128,280	6.2
Pregnant Women	315,101	–	485,191	–	373	–	800,665	–
Below FNS-issued nutritional risk criteria	23,055	7.3	55,697	11.5	19	5.1	78,771	9.8
Not reported[a]	30,581	9.7	25,892	5.3	205	55.0	56,678	7.1
Breastfeeding Women	09,580	–	375,150	–	317	–	685,047	–
Below FNS-issued nutritional risk criteria	102,613	33.1	123,945	33.0	37	11.7	226,595	33.1
Not reported[a]	15,586	5.0	22,945	6.1	192	60.6	38,723	5.7
Postpartum Women	180,490	–	391,824	–	403	–	572,717	–
Below FNS-issued nutritional risk criteria	62,493	34.6	160,397	40.9	48	11.9	222,938	38.9
Not reported[a]	11,587	6.4	21,009	5.4	283	70.2	32,879	5.7

Notes

For the percentage of women with hematologic test results that fell below FNS nutritional risk criteria, the calculation denominators included women for whom no data were reported, so the percentages reported here represent lower bounds.

Values reported here are additive; hemoglobin and hematocrit are mutually exclusive categories.

FNS-issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998). Participants with blood measures below the cutoff values are considered to be at risk.

[a] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on blood measures. For pregnant women, the category also includes participants missing data on expected date of delivery or weeks gestation. For breastfeeding and postpartum women, the category includes participants missing data on age.

Table 4.49. Distribution of Race of Child Participants by Anemia Level and Age at Blood Measurement

Anemia Level	American Indian or Alaska Native Only		Asian Only		Black or African American Only		Native Hawaiian or Pacific Islander Only		White Only		Two or More Races		Race Not Reported		Total Children	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Children	533,563	–	171,017	–	929,363	–	37,591	–	2,712,805	–	309,510	–	6,346	–	4,700,195	–
Below FNS-issued nutritional risk criteria	45,399	8.5	19,411	11.4	192,862	20.8	4,841	12.9	304,767	11.2	38,334	12.4	410	6.5	606,024	12.9
Not reported[a]	41,100	7.7	16,606	9.7	116,245	12.5	4,137	11.0	310,415	11.4	40,413	13.1	2,855	45.0	531,771	11.3
1-Year-Old Children	198,885	–	67,760	–	380,511	–	14,277	–	1,094,759	–	124,588	–	2,427	–	1,883,207	–
Below FNS-issued nutritional risk criteria	20,813	10.5	8,265	12.2	88,657	23.3	2,100	14.7	153,834	14.1	18,082	14.5	185	7.6	291,936	15.5
Not reported[a]	21,282	10.7	6,311	9.3	33,928	8.9	1,659	11.6	98,509	9.0	15,502	12.4	1,154	47.5	178,345	9.5
2-Year-Old Children	134,009	–	42,971	–	233,775	–	9,686	–	680,338	–	78,398	–	1,513	–	1,180,690	–
Below FNS-issued nutritional risk criteria	12,283	9.2	5,524	12.9	51,222	21.9	1,418	14.6	77,552	11.4	10,282	13.1	108	7.1	158,389	13.4
Not reported[a]	9,142	6.8	4,515	10.5	35,777	15.3	1,021	10.5	92,582	13.6	11,468	14.6	706	46.7	155,211	13.1
3-Year-Old Children	129,194	–	39,152	–	201,487	–	8,477	–	604,470	–	68,711	–	1,481	–	1,052,972	–
Below FNS-issued nutritional risk criteria	8,470	6.6	3,824	9.8	35,657	17.7	875	10.3	50,954	8.4	6,905	10.0	79	5.3	106,764	10.1
Not reported[a]	6,687	5.2	3,634	9.3	29,733	14.8	887	10.5	75,332	12.5	8,678	12.6	634	42.8	125,585	11.9

Anemia Level	American Indian or Alaska Native Only		Asian Only		Black or African American Only		Native Hawaiian or Pacific Islander Only		White Only		Two or More Races		Race Not Reported		Total Children	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
4-Year-Old Children	71,470	–	21,133	–	113,567	–	5,151	–	333,176	–	37,808	–	925	–	583,230	–
Below FNS-issued nutritional risk criteria	3,833	5.4	1,798	8.5	17,326	15.3	448	8.7	22,427	6.7	3,065	8.1	38	4.1	48,935	8.4
Not reported[a]	3,989	5.6	2,146	10.2	16,807	14.8	570	11.1	43,992	13.2	4,765	12.6	361	39.0	72,630	12.5
Age Not Reported[b]	5	< 0.1	1	< 0.1	23	< 0.1	0	0.0	62	< 0.1	5	< 0.1	0	0.0	96	< 0.1

Notes

For the percentage of children with hematologic test results that fell below FNS nutritional risk criteria, the calculation denominators included children for whom no data were reported, so the percentages reported here represent lower bounds.

Values reported here are additive; hemoglobin and hematocrit are mutually exclusive categories.

WIC regulations permit State and local agencies to dispense with hematological testing for infants younger than 9 months as well as for children whose test results are found to be within normal ranges at the last certification. However, blood tests should be performed on such children at least once in every 12-month period.

FNS-Issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998). Participants with blood measures below the cutoff values are considered to be at risk.

[a] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on blood measures.

[b] "Age not reported" indicates the numbers and percentages of participants for whom data were not reported on date of birth or blood measurement date/certification date.

Table 4.50. Distribution of Ethnicity of Child Participants by Anemia Level and Age at Blood Measurement

Anemia Level	Hispanic/Latino		Non-Hispanic/Latino		Ethnicity Not Reported		Total Children	
	Number	%	Number	%	Number	%	Number	%
Total Children	2,081,864	–	2,616,484	–	1,847	–	4,700,195	–
Below FNS-issued nutritional risk criteria	229,695	11.0	376,215	14.4	114	6.2	606,024	12.9
Not reported[a]	184,863	8.9	345,940	13.2	968	52.4	531,771	11.3
1-Year-Old Children	812,070	–	1,070,473	–	664	–	1,883,207	–
Below FNS-issued nutritional risk criteria	111,467	13.7	180,413	16.9	56	8.4	291,936	15.5
Not reported[a]	74,889	9.2	103,082	9.6	374	56.3	178,345	9.5
2-Year-Old Children	520,889	–	659,421	–	380	–	1,180,690	–
Below FNS-issued nutritional risk criteria	59,602	11.4	98,762	15.0	25	6.6	158,389	13.4
Not reported[a]	48,341	9.3	106,637	16.2	233	61.3	155,211	13.1
3-Year-Old Children	482,973	–	569,524	–	475	–	1,052,972	–
Below FNS-issued nutritional risk criteria	40,579	8.4	66,165	11.6	20	4.2	106,764	10.1
Not reported[a]	38,204	7.9	87,165	15.3	216	45.5	125,585	11.9
4-Year-Old Children	265,911	–	316,991	–	328	–	583,230	–
Below FNS-issued nutritional risk criteria	18,047	6.8	30,875	9.7	13	4.0	48,935	8.4
Not reported[a]	23,429	8.8	49,056	15.5	145	44.2	72,630	12.5
Age Not Reported[b]	21	< 0.1	75	< 0.1	0	0.0	96	< 0.1

Notes

For the percentage of children with hematologic test results that fell below FNS nutritional risk criteria, the calculation denominators included children for whom no data were reported, so the percentages reported here represent lower bounds.

Values reported here are additive; hemoglobin and hematocrit are mutually exclusive categories.

WIC regulations permit State and local agencies to dispense with hematological testing for infants younger than 9 months as well as for children whose test results are found to be within normal ranges at the last certification. However, blood tests should be performed on such children at least once in every 12-month period.

FNS-issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998). Participants with blood measures below the cutoff values are considered to be at risk.

[a] "Not reported" indicates the numbers and percentages of participants for whom data were not reported on blood measures.

[b] "Age not reported" indicates the numbers and percentages of participants for whom data were not reported on date of birth or blood measurement date/certification date.

Chapter 5. Risk Priority Levels

The number of participants that WIC can serve depends on the amount of funding Congress provides for the program and how FNS allocates the funds to individual State agencies. Since approximately 2000, Congress has funded WIC at a level sufficient for the program to serve all applicants. FNS determines each local agency's maximum caseload, or number of participants the agency can serve at one time. This number is based on the local agency's funding level and predicted caseload turnover. When the State agency reaches its maximum caseload, it prioritizes eligible applicants according to their relative levels of risk, known as risk priority levels. Eligible applicants whom the State agency cannot serve because all caseload slots are full are placed on a waiting list and served as slots become available. In the reference month of April 2016, no State agency was required to use risk priority levels to determine which applicants would receive benefits.

This chapter presents data on the risk priority levels of WIC participants. Section A provides an overview of the risk priority level system, section B describes the distribution of priority levels across the WIC population in 2016, and section C compares the risk priority levels of WIC participants in 2014 and 2016.

A. Overview of Risk Priority Levels

WIC regulations define seven risk priority levels. These levels are based on applicant categories and nutritional risks (see table 5.1). In general, precedence is given to medically based (anthropometric, biochemical, and medical) nutritional risks over risks based only on inadequate diet. Priority Levels I through III are assigned based on anthropometric, biochemical, or medical measurements, and Priority Levels IV through VI are assigned based on dietary patterns. Higher priority levels (I through III) are assigned to infants, pregnant women, and breastfeeding women. State agencies may create sublevels for any priority level using factors such as income or age, and they may expand Priority Levels III, IV, or V to include high-risk postpartum women. Moreover, State agencies have the option to assign Priority Levels IV, V, or VI solely based on an applicant's homeless or migrant status. Homeless or migrant participants with no other risks may be assigned Priority Level VII regardless of their certification categories.

Table 5.1. WIC Risk Priorities

Priority Level	Description
I	Pregnant women, breastfeeding women, and infants at nutritional risk as shown by hematological or anthropometric measurements or other documented, nutritionally related medical conditions that demonstrate the need for supplemental foods
II	Infants up to 6 months born to WIC participants who participated during pregnancy, and infants up to 6 months born to women who were not WIC participants during pregnancy but whose medical records document they were at nutritional risk during pregnancy because of nutritional conditions detectable by biochemical or anthropometric measurements, or other documented nutritionally related medical conditions, that demonstrated the woman's need for supplemental foods. Excludes infants who qualify for Priority I
III	Children at nutritional risk as shown by hematological or anthropometric measurements or other documented medical conditions that demonstrate the child's need for supplemental foods
IV	Pregnant women, breastfeeding women, and infants at nutritional risk because of an inadequate dietary pattern
V	Children at nutritional risk because of an inadequate dietary pattern
VI	Postpartum women at nutritional risk
VII	Individuals certified for WIC solely because of homelessness or migrant status, and—at the discretion of the State agency and in accordance with the provisions of section 246(e)(1)(vi) of Federal WIC regulations—previously certified participants who might regress in nutritional status without continued provision of supplemental foods[a]

Note

[a] Source: Special Supplemental Nutrition Program for Women, Infants and Children, 2014a

B. Risk Priority Levels of WIC Participants in 2016

Table 5.2 presents risk priority level distribution by participant category. State agencies reported priority levels for almost all WIC participants (99.8 percent). Most WIC participants (71.0 percent) were assigned a medically based priority level. The most commonly assigned priority levels were I, III, and V. Priority I was assigned to slightly less than one-third (32.4 percent) of the total WIC population, and Priority III was assigned to an identical proportion. Slightly less than one-quarter (22.5 percent) of participants were classified as Priority V. The smallest fraction of participants, only 0.2 percent, were classified as Priority VII.

More than two-thirds of women and infants (68.0 percent of both groups) were assigned Priority I, the highest priority level. The vast majority of pregnant and breastfeeding women were assigned Priority I: 92.5 percent and 94.0 percent, respectively. Priority IV was assigned to most of the remaining pregnant and breastfeeding women: 7.3 percent and 4.4 percent, respectively. Most of the remaining third of infants (25.9 percent) were assigned a risk level of Priority II, with 5.2 percent assigned Priority IV.

Postpartum women and children are less likely than other WIC participants to be assigned medically based priority levels and are thus more likely to be assigned priority levels that are dietary based. More than half of postpartum women (55.3 percent) were assigned Priority VI, one-third (34.5 percent) were assigned Priority III, and the remainder had assignments fairly evenly split among Priorities I, IV, and V; 2.7 percent, 3.4 percent, and 2.6 percent, respectively. More than half of children (56.4 percent) were classified as Priority III, and most of the remainder (41.7 percent) were classified as Priority V.

Tables 5.3 and 5.4 illustrate the risk priority level distribution by age at certification for infants and children, respectively. Priority I was assigned to roughly two-thirds of infants in each age category: 68.2 percent of 0- to 3-month-olds, 64.0 percent of 4- to 5-month-olds, 67.4 percent of 6- to 8-month-olds,

and 66.4 percent of 9- to 11-month-olds (see table 5.3). Among the remainder of infants, Priority II was more likely to be assigned to infants up to 6 months old, whereas Priority IV was more likely to be assigned to infants older than 6 months. More than one-fourth of 0- to 3-month-olds (27.2 percent) and less than one-fourth of 4- to 5-month-olds (23.2 percent) were assigned Priority II. Among infants 6 months old and older at certification, 21.5 percent of 6- to 8-month-olds and 19.9 percent of 9- to 11-month-olds were assigned Priority IV. The vast majority of infants (90.8 percent) were 0 to 3 months old at certification.

Table 5.4 shows that at each year of age, more than half of children (participants 1 to 4 years old) were assigned medically based Priority III, with most of the remainder assigned the dietary risk of Priority V. The proportion of children assigned Priority III generally increased with age, from 53.7 percent of 1-year-old children to 58.3 percent of 4-year-old children.

Tables 5.3 and 5.4 show a small proportion of infants were assigned priorities reserved for children, and a small proportion of children were assigned priorities reserved for infants. These inconsistencies were likely the result of automated State agency-level processes that recategorized infants as children when they reached 366 days of age (the first birthday) without automatically reassigning the risk priority level or that overwrote older priority-level assignments with new assignments when an infant turned 366 days old.

Table 5.2. Distribution of Participants in Participant Category by Risk Priority

Risk Priority	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants[a]		Children		Total Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Participants	800,665	–	685,047	–	572,717	–	2,058,429	–	2,056,848	–	4,700,195	–	8,815,472	–
Risk Priority Reported	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I[b]	740,560	92.5	643,743	94.0	15,516	2.7	1,399,819	68.0	1,399,614	68.0	52,378	1.1	2,851,811	32.4
II	45	< 0.1	8,706	1.3	609	0.1	9,360	0.5	533,557	25.9	2,156	< 0.1	545,073	6.2
III	50	< 0.1	278	< 0.1	197,815	34.5	198,143	9.6	6,927	0.3	2,651,482	56.4	2,856,552	32.4
IV	58,156	7.3	30,044	4.4	19,298	3.4	107,498	5.2	107,318	5.2	19,316	0.4	234,132	2.7
V	664	0.1	679	0.1	15,072	2.6	16,415	0.8	6,484	0.3	1,958,223	41.7	1,981,122	22.5
VI	726	0.1	1,022	0.1	316,430	55.3	318,178	15.5	88	< 0.1	175	< 0.1	318,441	3.6
VII	112	< 0.1	267	< 0.1	286	< 0.1	665	< 0.1	1,079	0.1	13,108	0.3	14,852	0.2
No Risk Priority Reported	352	< 0.1	308	< 0.1	7,691	1.3	8,351	0.4	1,781	0.1	3,357	0.1	13,489	0.2

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

In 2016, about 2.1 percent of participants who were classified as 1-year-old children were in fact 11-month-old infants who were reclassified as children without being formally recertified; similarly, about 0.1 percent of WIC participants who were classified as infants were older than 366 days (the first birthday).

[a] WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

[b] A small proportion of postpartum women and children may not have had their State agency-level records or priorities updated in State agency-maintained management information systems when they were recertified for WIC in different certification categories.

Table 5.3. Distribution of Age of Infant Participants at Certification by Risk Priority

Risk Priority	0–3 Months		4–5 Months		6–8 Months		9–11 Months		Age Not Reported		Total Infants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Infants	1,867,644	–	63,493	–	88,192	–	37,377	–	142	–	2,056,848	–
Risk Priority Reported	–	–	–	–	–	–	–	–	–	–	–	–
I	1,274,625	68.2	40,608	64.0	59,474	67.4	24,812	66.4	95	66.9	1,399,614	68.0
II	508,757	27.2	14,718	23.2	8,542	9.7	1,504	4.0	36	25.4	533,557	25.9
III[a]	3,974	0.2	134	0.2	511	0.6	2,307	6.2	1	0.7	6,927	0.3
IV	73,503	3.9	7,401	11.7	18,986	21.5	7,420	19.9	8	5.6	107,318	5.2
V[a]	4,871	0.3	240	0.4	235	0.3	1,137	3.0	1	0.7	6,484	0.3
VI[b]	37	< 0.1	13	< 0.1	34	< 0.1	3	< 0.1	1	0.7	88	< 0.1
VII	759	< 0.1	112	0.2	150	0.2	58	0.2	0	0.0	1,079	0.1
No Risk Priority Reported	1,118	0.1	267	0.4	260	0.3	136	0.4	0	0.0	1,781	0.1

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday). About 0.1 percent of WIC participants who were classified as infants were older than 366 days (the first birthday).

[a] Priorities III and V are reserved for children. Some infants may appear to be assigned these priority levels because some State agencies were unable to provide historical data on priority level assignments.

[b] The following State agencies reported they had assigned Priority VI to a small number of infants: Georgia (2), Illinois (7), Nevada (60), Pennsylvania (11), Utah (6), Wyoming (1), and Inter-Tribal Council of Nevada (1).

Table 5.4. Distribution of Age of Child Participants at Certification by Risk Priority

Risk Priority	1 Year		2 Years		3 Years		4 Years		Age Not Reported		Total Children	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Children	1,750,232	–	1,216,453	–	1,076,686	–	656,491	–	333	–	4,700,195	–
Risk Priority Reported	–	–	–	–	–	–	–	–	–	–	–	–
I[a]	45,386	2.6	3,016	0.2	2,477	0.2	1,489	0.2	10	3.0	52,378	1.1
II[a]	2,098	0.1	28	< 0.1	22	< 0.1	6	< 0.1	2	0.6	2,156	< 0.1
III	940,166	53.7	698,048	57.4	630,553	58.6	382,531	58.3	184	55.3	2,651,482	56.4
IV[a]	16,574	0.9	986	0.1	996	0.1	756	0.1	4	1.2	19,316	0.4
V	739,560	42.3	510,415	42.0	438,508	40.7	269,609	41.1	131	39.3	1,958,223	41.7
VI[b]	69	< 0.1	45	< 0.1	37	< 0.1	23	< 0.1	1	0.3	175	< 0.1
VII	5,154	0.3	3,016	0.2	3,367	0.3	1,571	0.2	0	0.0	13,108	0.3
No Risk Priority Reported	1,225	0.1	899	0.1	726	0.1	506	0.1	1	0.3	3,357	0.1

Notes

In 2016, about 2.1 percent of participants who were classified as 1-year-old children were in fact 11-month-old infants who were reclassified as children without being formally recertified; similarly, about 0.1 percent of WIC participants who were classified as infants were older than 366 days (the first birthday).

[a] Children are not eligible for Priorities I, II, and IV. Apparent inconsistencies in the assignation of these priority levels and certification as a child may be largely because of State agency-level automated procedures, which routinely reassign infants as children at the age of 366 days without revising assigned priorities.

[b] The following State agencies reported they had assigned Priority VI to a small number of children: Georgia (5), Illinois (15), Nevada (154), and Inter-Tribal Council of Nevada (1).

C. Shifts in Risk Priority Levels Between 2014 and 2016

Table 5.5 compares the risk priority levels[49] of WIC participants in 2014 and 2016. Overall, the distribution of risk priority levels in 2016 was very similar to that in 2014. Within certification categories, a few modest shifts were apparent, reflecting slight increases in medically based priorities and complementary decreases in dietary priorities.

The distribution of risk priority assignments among women participants remained fairly constant, with slight increases in Priorities I and III and slight decreases in Priorities IV and VI. Among postpartum women, the proportion assigned Priority V decreased from 6.5 percent in 2014 to 2.6 percent in 2016, and the proportion assigned Priority III increased from 32.6 percent in 2014 to 34.5 percent in 2016. Risk priority assignments remained similar for breastfeeding women from 2014 to 2016. Assignments for pregnant women were similar: the percentage assigned Priority I increased from 91.7 percent in 2014 to 92.5 percent in 2016, and the percentage assigned Priority IV declined from 8.0 percent in 2014 to 7.3 percent in 2016.

The proportion of infants assigned Priority I increased slightly (from 65.8 percent in 2014 to 68.0 percent in 2016) with a corresponding decrease in the proportion of infants assigned Priority II. Most of the increase in Priority I assignments occurred among 4- to 5-month-olds (from 61.1 percent in 2014 to 64.0 percent in 2016) and 6- to 8-month-olds (from 64.4 percent in 2014 to 67.4 percent in 2016; see table 5.3). The latest increase in the proportion of infants classified as Priority I continued a trend observed since 2000. This trend may stem in part from WIC agency staff using the anthropometric risk factor of obesity in a biological parent (mother or father) during the nutritional risk assessment to determine that the infant is at risk of being overweight.

Among children, the proportion assigned medically based Priority III increased slightly, from 54.8 percent in 2014 to 56.4 percent in 2016, extending a pattern observed since 2004. Most of this shift was concentrated among 1-year-old children: 51.0 percent in 2014 and 53.7 percent in 2016 were assigned Priority III (see table 5.4). The proportion of children assigned Priority V decreased from 44.0 percent in 2014 to 41.7 percent in 2016, again with the majority of this shift occurring among 1-year-old children: 46.6 percent in 2014 and 42.3 percent in 2016 were assigned Priority V.

[49] Priority I: Pregnant and breastfeeding women and infants at medically based nutritional risk; Priority II: Infants up to 6 months old born to WIC mothers or non-WIC mothers who were at nutritional risk during pregnancy; Priority III: Children at medically based nutritional risk; Priority IV: Pregnant and breastfeeding women and infants at dietary nutritional risk; Priority V: Children at dietary nutritional risk; Priority VI: Postpartum women at nutritional risk; Priority VII: Individuals certified based on homelessness or migrant status

Table 5.5. Percentage of Participants in Participant Category by Risk Priority: 2014, 2016

Risk Priority	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	2014	2016	2014	2016	2014	2016	2014	2016	2014	2016	2014	2016	2014	2016
Total Participants *(N)*	896,551	800,665	687,351	685,047	615,559	572,717	2,199,461	2,058,429	2,141,988	2,056,848	4,961,804	4,700,195	9,303,253	8,815,472
Risk Priority Reported	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I[a]	91.7	92.5	94.1	94.0	2.6	2.7	67.5	68.0	65.8	68.0	0.5	1.1	31.4	32.4
II	0.0	0.0	1.2	1.3	0.1	0.1	0.4	0.5	28.7	25.9	0.1	0.0	6.8	6.2
III	0.0	0.0	0.1	0.0	32.6	34.5	9.1	9.6	0.3	0.3	54.8	56.4	31.4	32.4
IV	8.0	7.3	4.3	4.4	3.3	3.4	5.5	5.2	4.9	5.2	0.1	0.4	2.5	2.7
V	0.0	0.1	0.0	0.1	6.5	2.6	1.8	0.8	0.1	0.3	44.0	41.7	23.9	22.5
VI	0.1	0.1	0.1	0.1	54.7	55.3	15.4	15.5	0.0	0.0	0.0	0.0	3.6	3.6
VII	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.4	0.3	0.2	0.2
No Risk Priority Reported	0.1	0.0	0.1	0.0	0.2	1.3	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.2

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

In 2016, about 2.1 percent of participants who were classified as 1-year-old children were in fact 11-month-old infants who were reclassified as children without being formally recertified; similarly, about 0.1 percent of WIC participants who were classified as infants were older than 366 days (the first birthday).

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

[a] A small proportion of postpartum women and children may not have had their State agency-level records or priorities updated in State agency-maintained management information systems when they were recertified for WIC in different certification categories.

Chapter 6. Breastfeeding of WIC Infants

With the passage of the Child Nutrition and WIC Reauthorization Act (Pub. L. 101–147) in 1989, WIC strengthened its breastfeeding promotion efforts for pregnant and postpartum participants. The legislation earmarked a minimum of $8 million per year for breastfeeding promotion and support. State and local agencies developed a range of strategies to increase breastfeeding initiation and duration among WIC participants, including providing current, accurate breastfeeding information through individual or group education for participants and their families; sponsoring peer counselor programs, breast-pump loan programs, and support groups; creating breastfeeding-friendly clinic environments and community partnerships; and providing ongoing staff education and training.

The Healthy Meals for Healthy Americans Act (Pub. L. 103–448), passed in 1994, required USDA to begin reporting to Congress on the incidence and duration of breastfeeding among WIC participants starting in 1998. This legislation also revised the funding formula for WIC breastfeeding promotion and support; in FY 2016, State agencies were required to spend an average of $37.78 (adjusted annually for inflation) on each pregnant and breastfeeding woman in support of breastfeeding. FNS collaborated with the National WIC Association and CDC to develop four new MDS items to collect data on breastfeeding. These MDS items, initially collected in 1998 for 7- to 11-month-old infants, provided data on whether infants were currently breastfed (at time of data collection), whether infants were ever breastfed, the length of time infants were breastfed (if not currently breastfed), and the date breastfeeding data were collected. Beginning with PC2004, State agencies were asked to collect these data on infants and children aged 6 to 13 months in April of the reference year.

Prior to 1998, State agencies were asked to report breastfeeding information only if their management information systems contained the data. National estimates could not be calculated because many State agencies were unable to report this information. By 1998, State agencies had improved their reporting of breastfeeding data significantly, which allowed the calculation of national estimates of breastfeeding initiation. Before PC2012, only individual State agency-specific estimates for breastfeeding duration could be produced because of the substantial amount of unreported data on variables needed to calculate duration. National estimates of breastfeeding duration were calculated for PC2012 and PC2014, but only State agency-level rates of breastfeeding duration could be calculated for PC2016 because insufficient data were collected to calculate national estimates.

This chapter presents data on breastfeeding initiation and duration among WIC infants and children aged 6 to 13 months. Section A presents national breastfeeding initiation rates and trends. Section B discusses State agency-specific breastfeeding duration estimates by presenting the median duration, mean duration during the first 6 months of breastfeeding, and a range for the percentage of infants and children breastfed for 6 or more months.

A. Breastfeeding Initiation Rates

Table 6.1 presents data on breastfeeding initiation rates for 6- to-13-month-old infants and children.[50] Reporting has generally improved over time, and the PC2016 estimate of the rate of breastfeeding initiation is based on data from 83 State agencies, which served 94.7 percent of all WIC infants and children aged 6 to 13 months. The other seven State agencies reported information on fewer than 75 percent of the infants and children in this age range that they served; therefore, their data were excluded from calculations. State agency-specific tables exclude data for one State agency that reported information on between 75 percent and 85 percent of infants and children in this age range, although these data are included in the national estimate. PC2016 estimates are based on data for 93.3 percent of all infants and children aged 6 to 13 months.

For the 83 State agencies that reported sufficient breastfeeding data, 71.0 percent of all 6- to 13-month-old infants and children were currently breastfed or were breastfed at some time. The breastfeeding initiation rates varied substantially across these State agencies, ranging from 34.5 percent to 96.7 percent. More than two-fifths of these agencies (35 out of 82) had breastfeeding initiation rates of greater than or equal to 60 percent and less than 80 percent. Approximately one-quarter of these agencies (21 out of 82) had initiation rates of greater than or equal to 40 percent and less than 60 percent, and one-quarter (19 out of 83) had initiation rates of greater than or equal to 80 percent and less than 90 percent. Only three State agencies had initiation rates of less than 40 percent, and only four State agencies had initiation rates of at least 90 percent.

Breastfeeding rates among infants and children have increased steadily since 1998 (see table 6.2). To minimize bias in analyzing changes over time, the comparisons between pairs of years were restricted to State agencies that reported data during both periods and to participants in the more restrictive age range of the two comparison points. These trends are illustrated in appendix figure D.6.2a, which presents maps of breastfeeding initiation rates for the 50 States and the District of Columbia for infants aged 7 to 11 months (PC1998–PC2016).

The PC1998 benchmark estimate of breastfeeding initiation was 41.5 percent (see table 6.2a). With the exception of 2006–2008, the breastfeeding initiation rate increased approximately 4 percentage points between each PC reporting period from 1998 to 2012 (see table 6.2b). Since 2012, there have been lesser increases in breastfeeding initiation rates: 2.7 percentage points from 2012 to 2014 (from 67.1 percent to 69.8 percent) and 1.1 percentage points from 2014 to 2016 (from 69.8 percent to 71.0 percent).

[50] Appendix D presents comparable data on breastfeeding for 7- to 11-month-old infants to allow comparison with previous PC reports.

Table 6.1. Distribution of Breastfeeding Initiation for Infants and Children Aged 6–13 Months by State Agency

Region and State Agency	Infants in Age Range	Ever or Currently Breastfed				
		Yes	No		Not Reported	
	Number	Number	%	Number	%	Number	%
Total for State Agencies That Reported Data[a]	1,265,709	898,830	71.0	348,123	27.5	18,756	1.5
Northeast							
Connecticut	8,507	6,665	78.3	1,744	20.5	98	1.2
Maine	3,413	2,578	75.5	835	24.5	0	0.0
Massachusetts	18,286	14,718	80.5	3,568	19.5	0	0.0
New Hampshire	2,564	1,966	76.7	598	23.3	0	0.0
New York	79,926	66,738	83.5	12,964	16.2	224	0.3
Rhode Island	3,566	2,443	68.5	859	24.1	264	7.4
Vermont	1,875	1,505	80.3	326	17.4	44	2.3
Indian Township Passamaquoddy Reservation (ME)	11	8	72.7	3	27.3	0	0.0
Pleasant Point Passamaquoddy Reservation (ME)	7	5	71.4	2	28.6	0	0.0
Seneca Nation (NY)	42	36	85.7	3	7.1	3	7.1
Mid-Atlantic							
Delaware	3,562	1,855	52.1	1,671	46.9	36	1.0
District of Columbia	3,040	2,019	66.4	894	29.4	127	4.2
Maryland	22,731	15,857	69.8	6,774	29.8	100	0.4
New Jersey	24,028	17,009	70.8	6,467	26.9	552	2.3
Pennsylvania	39,851	24,807	62.2	15,019	37.7	25	0.1
Puerto Rico	17,324	10,454	60.3	6,543	37.8	327	1.9
U.S. Virgin Islands	640	544	85.0	92	14.4	4	0.6
West Virginia	7,726	3,337	43.2	4,372	56.6	17	0.2
Southeast							
Alabama	23,546	8,469	36.0	14,865	63.1	212	0.9
Florida	87,166	68,389	78.5	18,043	20.7	734	0.8
Georgia	45,115	28,385	62.9	16,728	37.1	2	< 0.1
Kentucky	22,161	11,163	50.4	10,998	49.6	0	0.0
Mississippi	16,443	6,701	40.8	9,742	59.2	0	0.0

Region and State Agency	Infants in Age Range	Ever or Currently Breastfed					
		Yes		No		Not Reported	
	Number	Number	%	Number	%	Number	%
South Carolina	22,023	12,908	58.6	8,567	38.9	548	2.5
Tennessee	29,201	10,267	35.2	18,934	64.8	0	0.0
Mississippi Band of Choctaw	116	40	34.5	76	65.5	0	0.0
Midwest							
Illinois	44,886	32,304	72.0	12,373	27.6	209	0.5
Indiana	27,555	19,760	71.7	6,853	24.9	942	3.4
Michigan	38,982	25,640	65.8	13,170	33.8	172	0.4
Minnesota	18,824	14,911	79.2	3,913	20.8	0	0.0
Ohio	40,066	24,212	60.4	15,837	39.5	17	< 0.1
Wisconsin	17,089	12,503	73.2	4,512	26.4	74	0.4
Southwest							
Arkansas	15,477	8,462	54.7	7,015	45.3	0	0.0
Louisiana	26,882	11,437	42.5	15,349	57.1	96	0.4
New Mexico	8,359	6,810	81.5	1,549	18.5	0	0.0
Oklahoma	16,246	11,054	68.0	3,496	21.5	1,696	10.4
Texas	150,883	117,753	78.0	21,764	14.4	11,366	7.5
Acoma, Canoncito, Laguna (NM)	67	62	92.5	5	7.5	0	0.0
Cherokee Nation (OK)	1,531	902	58.9	626	40.9	3	0.2
Chickasaw Nation (OK)	648	452	69.8	196	30.2	0	0.0
Choctaw Nation of Oklahoma	630	334	53.0	296	47.0	0	0.0
Citizen Potawatomi Nation (OK)	221	131	59.3	90	40.7	0	0.0
Eight Northern Indian Pueblos Council (NM)	43	23	53.5	20	46.5	0	0.0
Five Sandoval Indian Pueblos (NM)	53	25	47.2	28	52.8	0	0.0
Inter-Tribal Council of Oklahoma	140	60	42.9	80	57.1	0	0.0
Muscogee Creek Nation (OK)	449	245	54.6	204	45.4	0	0.0
Osage Nation (OK)	659	375	56.9	284	43.1	0	0.0
Otoe-Missouria Tribe (OK)	99	57	57.6	42	42.4	0	0.0
Pueblo of Isleta (NM)	269	235	87.4	34	12.6	0	0.0
Pueblo of San Felipe (NM)	40	36	90.0	4	10.0	0	0.0

Region and State Agency	Infants in Age Range	Ever or Currently Breastfed					
		Yes		No		Not Reported	
	Number	Number	%	Number	%	Number	%
Pueblo of Zuni (NM)	73	63	86.3	10	13.7	0	0.0
Santo Domingo Pueblo (NM)	33	28	84.8	5	15.2	0	0.0
WCD Enterprises (OK)	602	370	61.5	232	38.5	0	0.0
Mountain Plains							
Colorado	16,437	13,504	82.2	2,895	17.6	38	0.2
Iowa	11,963	8,387	70.1	3,564	29.8	12	0.1
Kansas	11,163	8,776	78.6	2,386	21.4	1	< 0.1
Missouri	24,369	17,352	71.2	7,017	28.8	0	0.0
Montana	3,273	2,595	79.3	678	20.7	0	0.0
Nebraska	7,411	5,720	77.2	1,669	22.5	22	0.3
North Dakota	2,150	1,521	70.7	608	28.3	21	1.0
South Dakota	3,135	2,331	74.4	767	24.5	37	1.2
Utah	10,865	9,473	87.2	1,384	12.7	8	0.1
Wyoming	1,895	1,529	80.7	362	19.1	4	0.2
Cheyenne River Sioux Tribe (SD)	99	42	42.4	51	51.5	6	6.1
Omaha Nation (NE)	40	28	70.0	8	20.0	4	10.0
Rosebud Sioux Tribe (SD)	198	111	56.1	81	40.9	6	3.0
Santee Sioux Nation (NE)	19	[b]	[b]	[b]	[b]	[b]	[b]
Standing Rock Sioux Tribe (ND)	93	40	43.0	50	53.8	3	3.2
Ute Mountain Ute Tribe (CO)	41	39	95.1	0	0.0	2	4.9
Western							
Alaska	3,210	2,620	81.6	590	18.4	0	0.0
American Samoa	709	569	80.3	140	19.7	0	0.0
Arizona	26,593	18,703	70.3	7,620	28.7	270	1.0
California	179,867	140,941	78.4	38,923	21.6	3	< 0.1
Guam	1,218	953	78.2	263	21.6	2	0.2
Hawaii	5,320	4,628	87.0	620	11.7	72	1.4
Idaho	6,829	5,989	87.7	809	11.8	31	0.5
Nevada	11,340	6,222	54.9	5,118	45.1	0	0.0

Region and State Agency	Infants in Age Range	Ever or Currently Breastfed					
		Yes		No		Not Reported	
	Number	Number	%	Number	%	Number	%
Oregon	14,445	13,974	96.7	358	2.5	113	0.8
Washington	25,664	22,930	89.3	2,567	10.0	167	0.7
Inter Tribal Council of Arizona	1,617	1,067	66.0	524	32.4	26	1.6
Inter-Tribal Council of Nevada	231	102	44.2	129	55.8	0	0.0
Navajo Nation (AZ)	1,440	1,220	84.7	211	14.7	9	0.6
Northern Mariana Islands	399	344	86.2	52	13	3	0.8

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

[a] These State agencies reported data on breastfeeding initiation for at least 75 percent of all infants and children aged 6–13 months. This total excludes data from the following State agencies: North Carolina, Virginia, Eastern Band of Cherokee Indians (NC), Eastern Shoshone Tribe (WY), Northern Arapaho Tribe (WY), Three Affiliated Tribes (ND), and Winnebago Tribe (NE). The national estimates presented in this table are based on information for 93.3 percent of all infants and children aged 6–13 months.

[b] This State agency reported data on at least 75 percent but less than 85 percent of all infants and children aged 6–13 months. All available data (including for this State agency) were used to calculate breastfeeding initiation.

Table 6.2a. Distribution of Breastfeeding Initiation for Infants and Children: PC1998–PC2016

Year and Participant Age Range	Number of State Agencies That Reported Data	Percent Ever or Currently Breastfed[a]
1998 (7–11 months)	63	41.5
2000 (7–11 months)	68	44.5
2002 (7–11 months)	68	48.3
2004 (6–13 months)	67	54.6
2006 (6–13 months)	75	57.7
2008 (6–13 months)	87	59.0
2010 (6–13 months)	87	63.1
2012 (6–13 months)	86	67.1
2014 (6–13 months)	83	69.8
2016 (6–13 months)	83	71.0

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

[a] Reported rates are not strictly comparable across years because of differences in the number of State agencies that reported data; inconsistent State agency reporting (submitting data one year but not the next); and variations in the ages of infants for whom data were reported.

Table 6.2b. Distribution of and Percentage-Point Change in Breastfeeding Initiation for Infants and Children: PC1998–PC2016, Biennial Periods

Period and Participant Age Range	Number of State Agencies That Reported Data in Both Years	Beginning of Period Rate (percent)	End of Period Rate (percent)	Change in Rate (percentage points)
1998–2000 (7–11 months)	52	41.3	45.7	+4.4
2000–2002 (7–11 months)	59	44.4	48.2	+3.8
2002–2004 (7–11 months)[a]	64	50.0	54.4	+4.4
2004–2006 (6–13 months)	61[b]	54.6	58.3	+3.7
2006–2008 (6–13 months)	75	57.7	59.1	+1.4
2008–2010 (6–13 months)	84	58.7	63.0	+4.3
2010–2012 (6–13 months)	84	63.1	66.9	+3.8
2012–2014 (6–13 months)	82	67.1	69.8	+2.7
2014–2016 (6–13 months)	79	70.1	71.2	+1.1

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

[a] To estimate the change in the breastfeeding rate between 2002 and 2004, the study team used information only for infants aged 7–11 months and excluded California from the analysis. Prior to 2004, California's reported initiation rate was a lower bound estimate based on the conservative assumption that none of the infants for whom breastfeeding initiation data were missing (nearly half of those infants who were not currently breastfed) had ever been breastfed. California improved its reporting in 2004 and thus was able to estimate breastfeeding initiation more accurately. California's data were excluded from the 2002–2004 calculation.

[b] In 2006, the Omaha Santee Sioux agency split to form two separate State agencies. Hence, the number of agencies is 61 for PC2004 and 62 for PC2006.

B. Breastfeeding Duration

State agencies were asked to provide information on the length of time infants were breastfed. Sixty-eight State agencies were able to provide duration data for at least 75 percent of infants and children aged 6 to 13 months for whom breastfeeding was reportedly initiated. These 68 agencies served 72.7 percent of all 6- to 13-month-old infants and children. Data for these agencies are provided in tables 6.3 and 6.4.[51] Data are shown for the 63 State agencies that provided information on at least 85 percent of breastfed infants. Data for the remaining five State agencies, which provided data for at least 75 percent but less than 85 percent of infants and children aged 6 to 13 months, are included in the U.S. total but are not displayed individually.

The breastfeeding duration data are "right censored"—that is, the study team did not know the full breastfeeding duration for infants who were still breastfeeding when data were collected. Calculating an arithmetic mean of reported duration for both currently and ever-breastfed infants would underestimate the duration for those infants currently breastfed. Instead, information on duration is summarized in three statistics virtually unaffected by this limitation:

- *The median duration* was calculated by State agency as well as for all State agencies combined that reported data.[52]
- *The mean duration during the first 6 months* was calculated by State agency and for all State agencies combined that reported data. This measure is known for all infants who were aged 6 months or older when their data were collected regardless of current breastfeeding status.
- The *percentage of infants who breastfed 6 months or more* was calculated by State agency and for all State agencies combined that reported data. This measure is of special interest because of the health benefits that accrue to infants who are breastfed for at least 6 months.

Across the 68 State agencies that reported data, the median duration of breastfeeding was 13 weeks. Given the amount of unreported data, this should not be interpreted as a national estimate. For PC2014, data reporting was sufficient to calculate a national estimate of breastfeeding duration; the median duration for PC2014 was also 13 weeks. For PC2016, this measure varied substantially among State agencies. The median was fewer than 10 weeks for 28 agencies, between 10 and 19 weeks for 20 agencies, and 20 weeks or more for 15 agencies. This report does not present medians for the five State agencies that were unable to provide duration data on at least 85 percent of breastfed infants.

[51] Breastfeeding duration was counted as missing for the following participants: (1) currently breastfed infants and children for whom the date breastfeeding data were collected was not reported; (2) currently breastfed infants and children who were younger than 22 weeks on the date the data were collected and whose duration estimates could be substantially underreported; and (3) ever breastfed infants and children for whom duration was not reported.

[52] The calculation for median duration was unaffected by right censoring because breastfeeding data were collected for infants who were at least 6 months (26 weeks) old, and half or more of ever-breastfed infants had stopped breastfeeding by this age. For individual State agencies, median duration for most (59) was 26 weeks or less. For the four remaining State agencies, the median duration was more than 26 weeks but could not be measured, so the median duration is reported as more than 26 (26+) weeks. Median duration for the five State agencies whose data are included but not displayed individually in tables 6.3 and 6.4 was not more than 26 weeks.

Table 6.4 partially mitigates the effect of the missing data on initiation and duration of breastfeeding by estimating lower and upper bounds for the percentage of infants and children breastfed for 6 or more months. The lower bound estimate calculations included in the numerator only those infants for whom 6 or more months of breastfeeding was reported. Breastfed infants for whom initiation or duration information were missing were assumed to have been breastfed for less than 6 months. The upper bound estimate calculations included infants known to have been breastfed for at least 6 months as well as infants for whom initiation and duration of breastfeeding were not known. Across the 68 State agencies that reported breastfeeding duration data, the proportion of infants and children breastfed for 6 or more months ranged from a lower bound estimate of 24.4 percent to an upper bound estimate of 31.2 percent.

Table 6.3. Distribution of Breastfeeding Duration for Infants and Children Aged 6–13 Months by State Agency

Region and State Agency	Infants in Age Range	Infants Breastfed		Breastfed WIC Infants With Reported Breastfeeding Duration		Median Duration in Weeks	Mean Duration Within First 6 Months in Weeks
		Number	%	Number	%		
Total for State Agencies That Reported Data[a]	971,776	673,967	69.4	623,064	92.4	13.0	14.2
Northeast							
Maine	3,413	2,578	75.5	2,492	96.7	11.0	13.3
Massachusetts	18,286	14,718	80.5	14,093	95.8	12.0	13.3
New Hampshire	2,564	1,966	76.7	1,838	93.5	10.0	13.0
New York	79,926	66,738	83.5	58,842	88.2	17.0	15.7
Rhode Island	3,566	2,443	68.5	2,410	98.6	7.0	11.0
Vermont	1,875	1,505	80.3	1,413	93.9	18.0	15.8
Indian Township Passamaquoddy Reservation (ME)	11	8	72.7	8	100.0	7.5	10.9
Pleasant Point Passamaquoddy Reservation (ME)	7	5	71.4	5	100.0	9.0	9.0
Seneca Nation (NY)	42	36	85.7	31	86.1	4.0	8.2
Mid-Atlantic							
Delaware	3,562	1,855	52.1	[b]	[b]	[b]	[b]
District of Columbia	3,040	2,019	66.4	1,750	86.7	25.0	18.4
Maryland	22,731	15,857	69.8	14,760	93.1	18.0	15.5
New Jersey	24,028	17,009	70.8	15,724	92.4	26.0	17.8
Pennsylvania	39,851	24,807	62.2	23,638	95.3	5.0	10.6
U.S. Virgin Islands	640	544	85.0	516	94.9	25.0	18.8
West Virginia	7,726	3,337	43.2	[b]	[b]	[b]	[b]
Southeast							
Alabama	23,546	8,469	36.0	7,464	88.1	3.0	8.2
Georgia	45,115	28,385	62.9	26,448	93.2	12.0	13.3
Kentucky	22,161	11,163	50.4	11,160	100.0	13.0	13.8
Mississippi	16,443	6,701	40.8	6,398	95.5	6.0	9.8
South Carolina	22,023	12,908	58.6	12,018	93.1	8.0	11.7
Tennessee	29,201	10,267	35.2	8,968	87.3	10.0	13.4

Region and State Agency	Infants in Age Range	Infants Breastfed		Breastfed WIC Infants With Reported Breastfeeding Duration		Median Duration in Weeks	Mean Duration Within First 6 Months in Weeks
		Number	%	Number	%		
Midwest							
Illinois	44,886	32,304	72.0	29,904	92.6	9.0	12.4
Indiana	27,555	19,760	71.7	18,584	94.0	6.0	11.1
Michigan	38,982	25,640	65.8	[b]	[b]	[b]	[b]
Minnesota	18,824	14,911	79.2	13,931	93.4	16.0	15.2
Ohio	40,066	24,212	60.4	22,877	94.5	8.0	12.1
Wisconsin	17,089	12,503	73.2	11,364	90.9	6.0	10.5
Southwest							
Arkansas	15,477	8,462	54.7	8,108	95.8	4.0	9.7
Louisiana	26,882	11,437	42.5	10,529	92.1	9.0	10.9
Acoma, Canoncito, Laguna (NM)	67	62	92.5	61	98.4	15.0	14.8
Chickasaw Nation (OK)	648	452	69.8	429	94.9	6.0	11.1
Choctaw Nation of Oklahoma	630	334	53.0	323	96.7	7.0	11.1
Citizen Potawatomi Nation (OK)	221	131	59.3	128	97.7	7.5	11.9
Eight Northern Indian Pueblos Council (NM)	43	23	53.5	23	100.0	12.0	14.3
Five Sandoval Indian Pueblos (NM)	53	25	47.2	23	92.0	24.0	19.3
Inter-Tribal Council of Oklahoma	140	60	42.9	56	93.3	17.5	15.6
Muscogee Creek Nation (OK)	449	245	54.6	232	94.7	11.0	13.5
Osage Nation (OK)	659	375	56.9	370	98.7	7.0	11.0
Otoe-Missouria Tribe (OK)	99	57	57.6	51	89.5	13.0	14.6
Pueblo of San Felipe (NM)	40	36	90.0	36	100.0	26.0+	17.5
Pueblo of Zuni (NM)	73	63	86.3	60	95.2	26.0+	20.1
Santo Domingo Pueblo (NM)	33	28	84.8	28	100.0	22.0	17.2
WCD Enterprises (OK)	602	370	61.5	357	96.5	6.0	11.3
Mountain Plains							
Colorado	16,437	13,504	82.2	12,764	94.5	9.0	12.5
Iowa	11,963	8,387	70.1	7,753	92.4	7.0	11.5
Kansas	11,163	8,776	78.6	8,312	94.7	8.0	11.8
Missouri	24,369	17,352	71.2	16,790	96.8	8.0	11.7

Region and State Agency	Infants in Age Range	Infants Breastfed		Breastfed WIC Infants With Reported Breastfeeding Duration		Median Duration in Weeks	Mean Duration Within First 6 Months in Weeks
		Number	%	Number	%		
Montana	3,273	2,595	79.3	2,456	94.6	13.0	14.1
Nebraska	7,411	5,720	77.2	5,293	92.5	8.0	11.7
North Dakota	2,150	1,521	70.7	1,418	93.2	8.0	12.0
Utah	10,865	9,473	87.2	8,783	92.7	13.0	14.3
Wyoming	1,895	1,529	80.7	1,422	93.0	9.0	12.7
Standing Rock Sioux Tribe (ND)	93	40	43.0	34	85.0	4.5	10.8
Western							
Alaska	3,210	2,620	81.6	2,532	96.6	24.0	17.0
American Samoa	709	569	80.3	510	89.6	26.0+	20.3
Arizona	26,593	18,703	70.3	[b]	[b]	[b]	[b]
California	179,867	140,941	78.4	133,689	94.9	23.0	17.0
Guam	1,218	953	78.2	855	89.7	13.0	13.7
Hawaii	5,320	4,628	87.0	4,326	93.5	17.0	16.1
Idaho	6,829	5,989	87.7	5,845	97.6	23.0	16.5
Nevada	11,340	6,222	54.9	5,793	93.1	20.0	15.9
Oregon	14,445	13,974	96.7	12,462	89.2	26.0+	22.5
Washington	25,664	22,930	89.3	21,833	95.2	24.0	16.8
Inter Tribal Council of Arizona	1,617	1,067	66.0	995	93.3	8.0	12.1
Inter-Tribal Council of Nevada	231	102	44.2	97	95.1	20.0	15.9
Navajo Nation(AZ)	1,440	1,220	84.7	[b]	[b]	[b]	[b]
Northern Mariana Islands	399	344	86.2	296	86.0	17.0	14.9

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

For some State agencies, the median breastfeeding duration was greater than 26 weeks. Because of data limitations, medians of greater than 26 weeks could not be measured, so the median duration is reported as more than 26 (26.0+) weeks.

[a] These State agencies reported data on breastfeeding initiation for at least 75.0 percent of all infants and children aged 6–13 months and duration data for at least 75.0 percent of breastfed infants. Because these State agencies served only 72.7 percent of all infants and children aged 6–13 months, duration estimates presented in this table do not constitute a national estimate. This total excludes data for the following State agencies: Connecticut, Delaware, Florida, New Mexico, North Carolina, Oklahoma, Puerto Rico, South Dakota, Texas, Virginia, Cheyenne River Sioux Tribe (SD), Eastern Band of Cherokee Indians (NC), Eastern Shoshone Tribe (WY), Mississippi Band of Choctaw Indians (MS), Northern Arapaho Tribe (WY), Omaha Nation (NE), Pueblo of Isleta (NM), Rosebud Sioux Tribe (SD), Santee Sioux Nation (NE), Three Affiliated Tribes (ND), Ute Mountain Ute Tribe (CO), and Winnebago Tribe (NE).

[b] This State agency reported data on at least 75 percent but less than 85 percent of all infants and children aged 6–13 months. All available data (including for this State agency) were used to calculate breastfeeding duration.

Table 6.4. Estimated Distribution of Breastfeeding Duration of Infants and Children Aged 6–13 Months Who Breastfed for 6 Months or More by State Agency

Region and State Agency	Infants in Age Range	Lower Bound Estimate[c]		Upper Bound Estimate[c]	
	Number	Number	%	Number	%
Total for State Agencies That Reported Data[a]	971,776	236,662	24.4	302,823	31.2
Northeast					
Maine	3,413	881	25.8	980	28.7
Massachusetts	18,286	4,917	26.9	5,703	31.2
New Hampshire	2,564	613	23.9	764	29.8
New York	79,926	25,689	32.1	34,586	43.3
Rhode Island	3,566	577	16.2	878	24.6
Vermont	1,875	654	34.9	815	43.5
Indian Township Passamaquoddy Reservation (ME)	11	2	18.2	2	18.2
Pleasant Point Passamaquoddy Reservation (ME)	7	0	0.0	0	0.0
Seneca Nation (NY)	42	4	9.5	12	28.6
Mid-Atlantic					
Delaware	3,562	[b]	[b]	[b]	[b]
District of Columbia	3,040	922	30.3	1,349	44.4
Maryland	22,731	6,194	27.2	7,577	33.3
New Jersey	24,028	8,621	35.9	10,677	44.4
Pennsylvania	39,851	5,916	14.8	7,386	18.5
U.S. Virgin Islands	640	276	43.1	323	50.5
West Virginia	7,726	[b]	[b]	[b]	[b]
Southeast					
Alabama	23,546	1,266	5.4	2,538	10.8
Georgia	45,115	8,254	18.3	10,894	24.1
Kentucky	22,161	4,731	21.3	4,734	21.4
Mississippi	16,443	1,196	7.3	1,548	9.4
South Carolina	22,023	3,331	15.1	4,959	22.5
Tennessee	29,201	3,132	10.7	4,685	16.0

Region and State Agency	Infants in Age Range	Lower Bound Estimate[c]		Upper Bound Estimate[c]	
	Number	Number	%	Number	%
Midwest					
Illinois	44,886	8,940	19.9	11,760	26.2
Indiana	27,555	4,812	17.5	7,068	25.7
Michigan	38,982	[b]	[b]	[b]	[b]
Minnesota	18,824	5,771	30.7	6,953	36.9
Ohio	40,066	6,151	15.4	8,446	21.1
Wisconsin	17,089	2,591	15.2	3,927	23.0
Southwest					
Arkansas	15,477	1,771	11.4	2,209	14.3
Louisiana	26,882	2,466	9.2	3,505	13.0
Acoma, Canoncito, Laguna (NM)	67	23	34.3	25	37.3
Chickasaw Nation (OK)	648	115	17.7	143	22.1
Choctaw Nation of Oklahoma	630	83	13.2	95	15.1
Citizen Potawatomi Nation (OK)	221	38	17.2	43	19.5
Eight Northern Indian Pueblos Council (NM)	43	8	18.6	9	20.9
Five Sandoval Indian Pueblos (NM)	53	11	20.8	15	28.3
Inter-Tribal Council of Oklahoma	140	23	16.4	30	21.4
Muscogee Creek Nation (OK)	449	81	18.0	95	21.2
Osage Nation (OK)	659	87	13.2	93	14.1
Otoe-Missouria Tribe (OK)	99	21	21.2	28	28.3
Pueblo of San Felipe (NM)	40	21	52.5	21	52.5
Pueblo of Zuni (NM)	73	39	53.4	45	61.6
Santo Domingo Pueblo (NM)	33	10	30.3	13	39.4
WCD Enterprises (OK)	602	96	15.9	110	18.3
Mountain Plains					
Colorado	16,437	3,847	23.4	4,900	29.8
Iowa	11,963	2,168	18.1	2,885	24.1
Kansas	11,163	2,436	21.8	2,971	26.6
Missouri	24,369	4,815	19.8	5,448	22.4
Montana	3,273	898	27.4	1,063	32.5

Region and State Agency	Infants in Age Range	Lower Bound Estimate[c]		Upper Bound Estimate[c]	
	Number	Number	%	Number	%
Nebraska	7,411	1,410	19.0	1,940	26.2
North Dakota	2,150	406	18.9	539	25.1
Utah	10,865	3,251	29.9	4,164	38.3
Wyoming	1,895	453	23.9	583	30.8
Standing Rock Sioux Tribe (ND)	93	10	10.8	19	20.4
Western					
Alaska	3,210	1,283	40.0	1,378	42.9
American Samoa	709	332	46.8	410	57.8
Arizona	26,593	[b]	[b]	[b]	[b]
California	179,867	64,800	36.0	75,640	42.1
Guam	1,218	297	24.4	417	34.2
Hawaii	5,320	1,948	36.6	2,338	43.9
Idaho	6,829	2,883	42.2	3,162	46.3
Nevada	11,340	2,603	23.0	3,127	27.6
Oregon	14,445	9,897	68.5	12,031	83.3
Washington	25,664	11,089	43.2	12,547	48.9
Inter Tribal Council of Arizona	1,617	330	20.4	433	26.8
Inter-Tribal Council of Nevada	231	47	20.3	52	22.5
Navajo Nation (AZ)	1,440	[b]	[b]	[b]	[b]
Northern Mariana Islands	399	123	30.8	178	44.6

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

[a] These State agencies reported data on breastfeeding initiation for at least 75.0 percent of all infants and children aged 6–13 months and duration data for at least 75.0 percent of breastfed infants. Because these State agencies served only 72.7 percent of all infants and children aged 6–13 months, duration estimates presented in this table do not constitute a national estimate. This total excludes data for the following State agencies: Connecticut, Delaware, Florida, New Mexico, North Carolina, Oklahoma, Puerto Rico, South Dakota, Texas, Virginia, Cheyenne River Sioux Tribe (SD), Eastern Band of Cherokee Indians (NC), Eastern Shoshone Tribe (WY), Mississippi Band of Choctaw Indians (MS), Northern Arapaho Tribe (WY), Omaha Nation (NE), Pueblo of Isleta (NM), Rosebud Sioux Tribe (SD), Santee Sioux Nation (NE), Three Affiliated Tribes (ND), Ute Mountain Ute Tribe (CO), and Winnebago Tribe (NE).

[b] This State agency reported data on at least 75 percent but less than 85 percent of all infants and children aged 6–13 months. All available data (including for this State agency) were used to calculate breastfeeding duration.

[c] The lower bound estimate was calculated only for those infants for whom 6 or more months of breastfeeding was reported. The upper bound estimate calculation included infants known to have been breastfed for at least 6 months as well as infants for whom the initiation and duration of breastfeeding were not known. For the upper bound estimate calculation, infants known to have been breastfed for at least 6 months included currently breastfeeding infants aged 5–6 months.

Chapter 7. Characteristics of Migrant WIC Participants

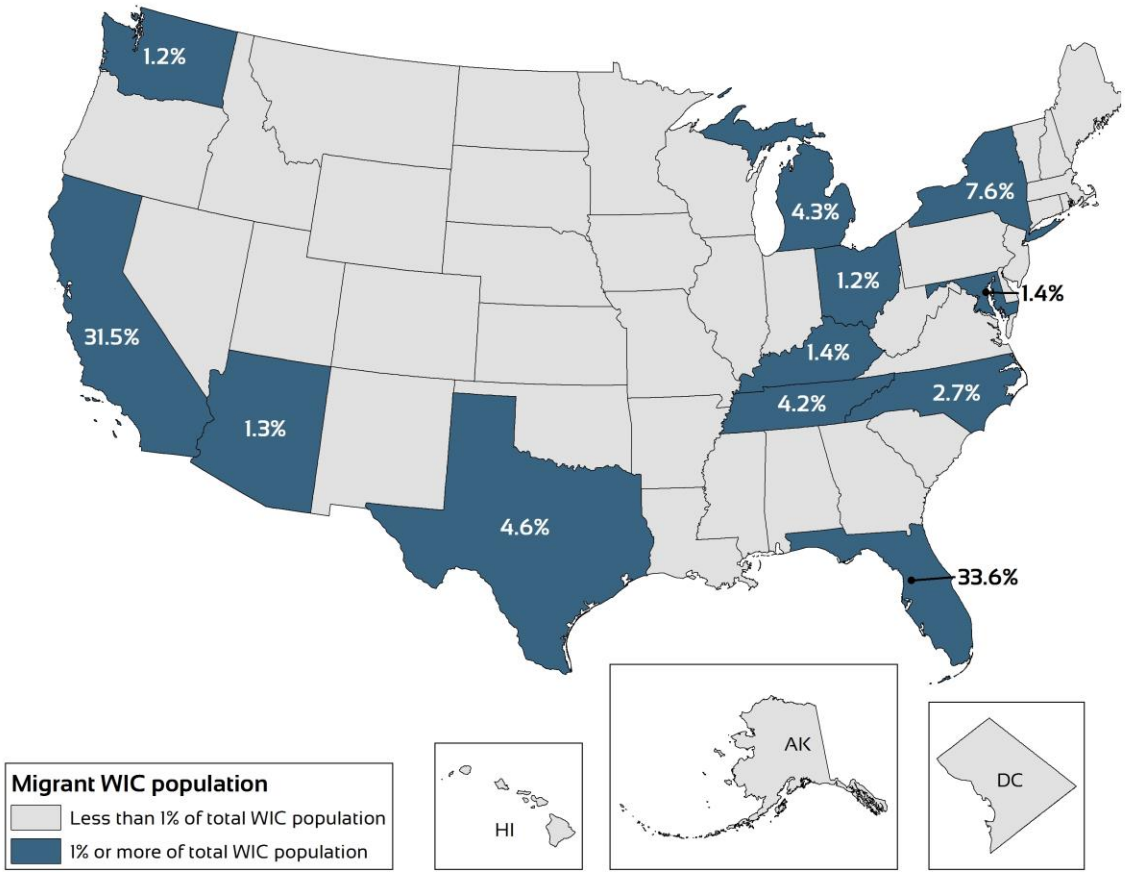
WIC regulations define a migrant farmworker as an individual whose principal employment is in agriculture on a seasonal basis, who has been so employed within the last 24 months, and who has established a temporary abode for the purposes of such employment. State agencies are required to report migrant status for all individuals enrolled in WIC as part of the MDS.

This chapter reports data on these migrant participants. Sections A and B describe their demographic characteristics and income and poverty measures, respectively. Section C describes these participants' nutritional risks, and section D describes their risk priority levels.

A. Demographic Characteristics of Migrant WIC Participants

In 2016, migrant participation was concentrated in a small number of State agencies. More than three-quarters (77.3 percent) of migrant participants were from California, Florida, New York, and Texas (see figure 7.1 and appendix table E.7.1).

Figure 7.1. Percentage of Migrant Participants by State



Note
Percentages are based on total migrant participation.

State agencies reported 37,246 individuals as members of migrant farmworker families in April 2016 (see table 7.1). Migrants accounted for less than half of 1 percent of all WIC participants, a proportion consistent with migrant status records since 1992.

The percentages of migrant and nonmigrant WIC participants in each certification category differed only slightly. A somewhat greater proportion of migrants were children (56.7 percent versus 53.2 percent of nonmigrants), whereas a smaller proportion were infants (20.2 percent versus 23.4 percent of nonmigrants). Similar percentages of migrant and nonmigrant participants were women (23.1 percent versus 23.4 percent).

Age composition at the time of certification was similar among migrants and nonmigrants (see table 7.2). Migrant women in each certification category were less likely to be aged 18 to 34 and more likely to be aged 35 or older compared with nonmigrant women; the largest difference was for migrant versus nonmigrant postpartum women. Compared with all nonmigrant women, 4.0 percent fewer migrants were aged 18 to 34, and 4.3 percent more migrants were aged 35 or older. Nearly all migrant and nonmigrant infants were certified between the ages of 0 and 3 months (more than 90 percent in both cases). Migrant and nonmigrant children were certified at nearly the same ages, but 2.2 percent more migrants were certified at age 4, and 2.7 percent more nonmigrants were certified at age 1.

More than half of pregnant migrant women (56.9 percent) enrolled in WIC during the first trimester of pregnancy, and another 35.7 percent enrolled during the second trimester (see table 7.3). Only 7.0 percent enrolled during the final trimester. This represents slightly earlier enrollment compared with the distribution of pregnant women in the overall WIC population for 2016 (see table 2.4) and parallels enrollment for 2014.

Table 7.1. Distribution of Participant Migrant Status by Participant Category

Participant Category	Migrant		Nonmigrant		Migrant Status Not Reported		Total Participants	
	Number	%	Number	%	Number	%	Number	%
Total Participants	37,246	–	8,740,803	–	37,423	–	8,815,472	–
Women	8,604	23.1	2,045,053	23.4	4,772	12.8	2,058,429	23.4
Pregnant women	3,252	8.7	795,609	9.1	1,804	4.8	800,665	9.1
Breastfeeding women	3,494	9.4	679,091	7.8	2,462	6.6	685,047	7.8
Postpartum women	1,858	5.0	570,353	6.5	506	1.4	572,717	6.5
Infants	7,534	20.2	2,045,348	23.4	3,966	10.6	2,056,848	23.3
Children	21,108	56.7	4,650,402	53.2	28,685	76.7	4,700,195	53.3

Notes
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.
WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

Table 7.2. Percentage of Migrant Status of Participants by Participant Category and Age at Certification

Participant Category and Age at Certification	Migrant	Nonmigrant	Migrant Status Not Reported	Total Participants
Total Participants *(N)*	37,246	8,740,803	37,423	8,815,472
Total Women *(N)*	8,604	2,045,053	4,772	2,058,429
Younger than 15	0.2	0.1	0.0	0.1
15–17	2.5	2.8	0.3	2.8
18–34	81.4	85.4	73.8	85.4
35 or older	15.9	11.6	25.8	11.7
Age not reported	0.0	0.0	0.0	0.0
Pregnant Women (N)	3,252	795,609	1,804	800,665
Younger than 15	0.2	0.2	0.1	0.2
15–17	2.8	3.5	0.6	3.5
18–34	82.2	85.5	73.3	85.5
35 or older	14.8	10.7	26.0	10.8
Age not reported	0.0	0.0	0.1	0.0
Breastfeeding Women (N)	3,494	679,091	2,462	685,047
Younger than 15	0.1	0.1	0.0	0.1
15–17	1.8	1.7	0.1	1.7
18–34	81.1	84.0	72.9	84.0
35 or older	17.0	14.1	26.9	14.2
Age not reported	0.0	0.0	0.0	0.0
Postpartum Women (N)	1,858	570,353	506	572,717
Younger than 15	0.2	0.1	0.0	0.1
15–17	3.2	3.1	0.6	3.1
18–34	80.7	86.8	79.8	86.8
35 or older	16.0	9.9	19.6	9.9
Age not reported	0.0	0.0	0.0	0.0
Infants *(N)*	7,534	2,045,348	3,966	2,056,848
0–3 months	94.4	90.8	93.0	90.8
4–5 months	2.3	3.1	2.0	3.1
6–8 months	2.0	4.3	1.4	4.3
9–12 months	1.3	1.8	3.6	1.8
Age not reported	0.0	0.0	0.0	0.0
Children *(N)*	21,108	4,650,402	28,685	4,700,195
1 year	34.6	37.3	22.9	37.2
2 years	25.5	25.9	29.9	25.9
3 years	23.8	22.9	28.0	22.9
4 years	16.1	13.9	19.2	14.0
Age not reported	0.0	0.0	0.0	0.0

Notes
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.
WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

Table 7.3. Distribution of Migrant Pregnant Women Participants by Trimester of Enrollment

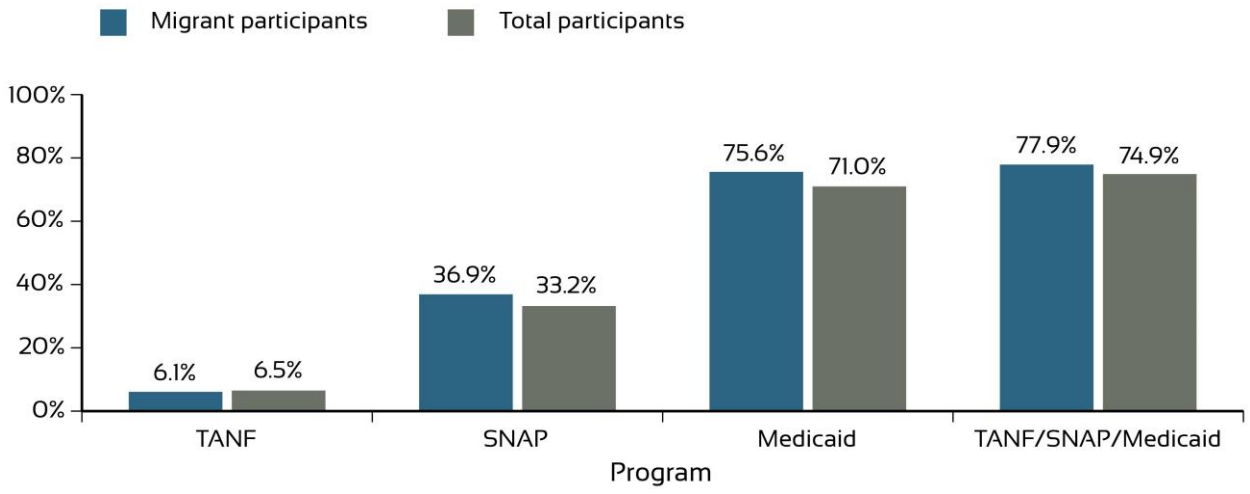
Trimester of Enrollment	Number	Percent
Total Migrant Pregnant Women	3,252	100.0
First trimester	1,851	56.9
Second trimester	1,160	35.7
Third trimester	229	7.0
Trimester not reported	12	0.4

Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

B. Income of Migrant WIC Participants and Participation in Other Benefit Programs

Levels of reported participation in other benefit programs were similar for migrant and nonmigrant WIC participants (see figure 7.2 and table 7.4). A slightly greater percentage of migrant WIC participants (77.9 percent) compared with WIC participants overall (74.9 percent) also participated in TANF, SNAP, or Medicaid. These findings may underestimate participation in other programs, as discussed in chapter 3.

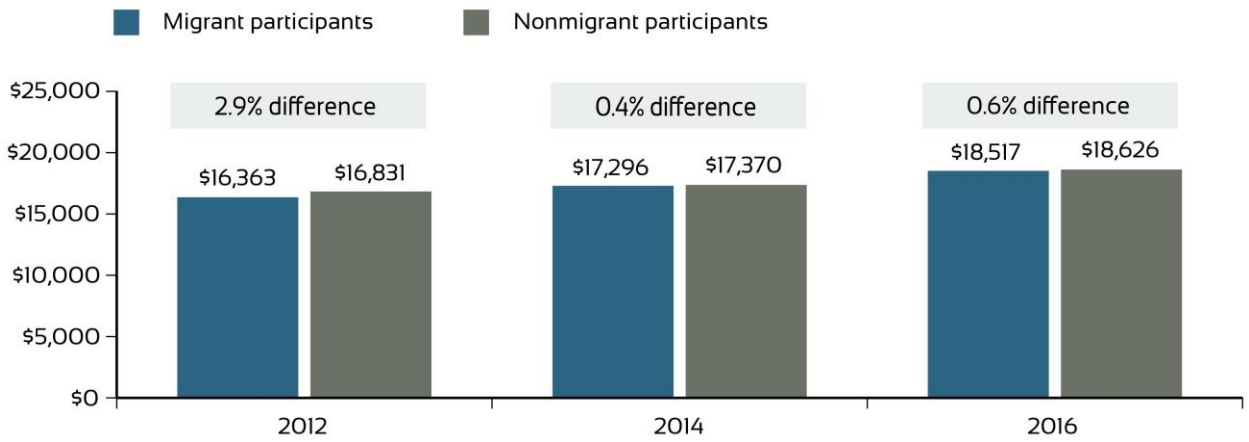
Figure 7.2. Percentage of Total Participants and Migrant Participants by Reported Participation in Other Benefit Programs



Note
Illinois was unable to provide sufficient PC2016 data on participation in TANF. Alaska was unable to provide sufficient PC2016 data on participation in TANF, SNAP, and Medicaid (see table 7.4).

The mean annual income of migrant participants was almost equal to that of nonmigrant participants ($18,517 and $18,626, respectively; see table 7.5). Between 2014 and 2016, the mean income of migrant WIC participants increased by 7.1 percent, from $17,296 to $18,517. The nonmigrant WIC population experienced a similar increase of 7.2 percent, from $17,370 to $18,626. As a result, in 2016, the income gap between migrants and nonmigrants was greater than it was in 2014 (0.6 percent in 2016 versus 0.4 percent in 2014) but still smaller than it was in 2012 (2.9 percent; see figure 7.3 and table 7.5).

Figure 7.3. Mean Annual Income of Migrant Participants and Nonmigrant Participants: 2012, 2014, 2016



Although migrant and nonmigrant WIC families had similar mean incomes, a larger percentage of migrant WIC participants had income at or below the Federal Poverty Guidelines. Nearly three-quarters (72.7 percent) of migrants were living in poverty compared with slightly less than two-thirds (65.5 percent) of nonmigrants (see table 7.6). Around one-third of both migrant and nonmigrant families reported income equal to or less than 50 percent of the Federal Poverty Guidelines (30.4 percent and 32.4 percent, respectively). Similar proportions and differences were present within certification categories of migrants and nonmigrants.

Table 7.4. Distribution of Migrant Participants by Reported Participation in Other Benefit Programs

Program(s)	Number	Percent
Total Migrant Participants	37,246	100.0
Migrant Participants With Reported Participation in Other Benefit Programs by Program	–	–
TANF	2,284	6.1
SNAP	13,740	36.9
Medicaid	28,152	75.6
Participation in any other benefit program	29,021	77.9
Migrant Participants With Reported Participation in Any Other Benefit Programs by Combination of Programs	–	–
TANF, SNAP, and Medicaid	2,091	5.6
TANF and SNAP	52	0.1
TANF and Medicaid	114	0.3
SNAP and Medicaid	10,807	29.0
TANF only	27	0.1
SNAP only	790	2.1
Medicaid only	15,140	40.6
No participation in other benefit programs	6,812	18.3
Not reported[a]	1,413	3.8

Notes
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.
Changes in WIC income documentation requirements and system constraints may have limited the number of entries into State agency management information systems to document an applicant's participation in other benefit programs.
Illinois was unable to provide sufficient PC2016 data on participation in TANF. Alaska was unable to provide sufficient PC2016 data on participation in TANF, SNAP, and Medicaid.
[a] "Not reported" indicates the numbers and percentages of participants with missing data on participation in other benefit programs. To exclude those participants would change the estimated participation for Migrant Participants With Reported Participation in Other Benefit Programs by Program to 6.2 percent for TANF, 37.2 percent for SNAP, and 75.8 percent for Medicaid.

Table 7.5. Distribution of Participants in Participant Category by Migrant Status and Annualized Family or Economic Unit Income

Income	Pregnant Women	Breastfeeding Women	Postpartum Women	Total Women	Infants	Children	Total Participants
Total Participants *(N)*	800,665	685,047	572,717	2,058,429	2,056,848	4,700,195	8,815,472
Migrant Participants *(N)*	3,252	3,494	1,858	8,604	7,534	21,108	37,246
Average (mean) income	$18,342	$18,855	$17,057	$18,280	$17,861	$18,851	$18,517
Median income	$17,028	$18,000	$15,600	$17,004	$16,640	$17,244	$16,900
Percent with income reported	94.3	95.0	92.4	94.2	92.2	92.2	92.6
Percent with income reported as zero[a]	0.9	0.9	1.5	1.0	2.0	1.2	1.3
Percent with income not reported[b]	4.7	4.1	6.1	4.8	5.9	6.7	6.1
Nonmigrant Participants *(N)*	795,609	679,091	570,353	2,045,053	2,045,348	4,650,402	8,740,803
Average (mean) income	$18,150	$19,792	$16,242	$18,177	$17,672	$19,233	$18,626
Median income	$16,284	$18,192	$14,304	$16,224	$15,600	$17,160	$16,704
Percent with income reported	91.9	91.8	89.4	91.2	89.1	91.3	90.7
Percent with income reported as zero[a]	0.7	0.8	0.8	0.8	1.6	0.6	0.9
Percent with income not reported[b]	7.4	7.4	9.8	8.1	9.3	8.1	8.4
Migrant Status Not Reported *(N)*	1,804	2,462	506	4,772	3,966	28,685	37,423
Average (mean) income	$18,621	$18,720	$19,649	$18,777	$18,779	$18,810	$18,803
Median income	$16,020	$15,600	$16,900	$15,936	$15,600	$16,176	$16,016
Percent with income reported	95.5	96.7	91.1	95.6	94.8	96.2	96.0
Percent with income reported as zero[a]	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Percent with income not reported[b]	4.5	3.2	8.9	4.3	5.1	3.8	4.0

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

State and local agencies may collect data on weekly, biweekly, monthly, or annual incomes. For reporting and analysis, annualized incomes were computed.

Income calculations included only those participants for whom State agencies reported data on income, income period, and size of economic unit.

In 2016, a State agency could report actual income or an income range for participants. Calculations of mean and median income included both types of data.

[a] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the percentage of participants by participant category for whom data were not reported on income, income period, or size of economic unit. Calculations of mean and median incomes presented in this table excluded these participants.

Table 7.6. Percentage of Participants in Participant Category by Migrant Status and Income as a Percentage of Federal Poverty Guidelines

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Migrant Participants *(N)*	3,252	–	3,494	–	1,858	–	8,604	–	7,534	–	21,108	–	37,246	–
0–50	28.0	28.0	27.8	27.8	33.7	33.7	29.2	29.2	31.8	31.8	30.4	30.4	30.4	30.4
51–100	41.1	69.1	45.0	72.9	40.5	74.3	42.5	71.7	41.4	73.2	42.5	72.9	42.3	72.7
101–130	12.8	81.9	12.5	85.4	9.8	84.1	12.1	83.8	10.5	83.7	10.6	83.6	10.9	83.7
131–150	5.4	87.3	4.0	89.4	3.0	87.1	4.3	88.1	3.6	87.3	3.5	87.1	3.7	87.4
151–185	5.1	92.3	4.4	93.8	3.7	90.9	4.5	92.6	3.9	91.2	3.6	90.7	3.9	91.2
186–200	0.6	93.0	0.3	94.1	0.9	91.7	0.6	93.2	0.3	91.5	0.5	91.2	0.5	91.7
More than 200	1.3	94.3	0.9	95.0	0.8	92.4	1.0	94.2	0.7	92.2	1.0	92.2	1.0	92.6
Income reported as zero[a]	0.9	95.3	0.9	95.9	1.5	93.9	1.0	95.2	2.0	94.1	1.2	93.3	1.3	93.9
Not reported[b,c]	4.7	100.0	4.1	100.0	6.1	100.0	4.8	100.0	5.9	100.0	6.7	100.0	6.1	100.0
Nonmigrant Participants *(N)*	795,609	–	679,091	–	570,353	–	2,045,053	–	2,045,348	–	4,650,402	–	8,740,803	–
0–50	30.8	30.8	28.5	28.5	38.8	38.8	32.3	32.3	34.4	34.4	31.7	31.7	32.4	32.4
51–100	32.6	63.4	34.6	63.1	29.8	68.5	32.5	64.7	31.3	65.7	34.1	65.8	33.1	65.5
101–130	12.9	76.3	13.6	76.8	10.3	78.8	12.4	77.2	11.3	77.1	12.2	78.0	12.1	77.6
131–150	6.0	82.3	6.1	82.9	4.3	83.2	5.6	82.7	4.9	82.0	5.3	83.3	5.3	82.9
151–185	7.1	89.4	7.1	89.9	4.8	88.0	6.4	89.2	5.6	87.6	6.0	89.4	6.0	88.9
186–200	0.8	90.2	0.6	90.5	0.4	88.4	0.6	89.8	0.5	88.1	0.6	89.9	0.6	89.5
More than 200	1.7	91.9	1.2	91.8	0.9	89.4	1.3	91.2	1.0	89.1	1.4	91.3	1.2	90.7
Income reported as zero[a]	0.7	92.6	0.8	92.6	0.8	90.2	0.8	91.9	1.6	90.7	0.6	91.9	0.9	91.6
Not reported[b,c]	7.4	100.0	7.4	100.0	9.8	100.0	8.1	100.0	9.3	100.0	8.1	100.0	8.4	100.0

Percent of Federal Poverty Guidelines	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Participants	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
Migrant Status Not Reported *(N)*	1,804	–	2,462	–	56	–	4,772	–	3,966	–	28,685	–	37,423	–
0–50	42.7	42.7	46.7	46.7	35.2	35.2	44.0	44.0	44.5	44.5	35.1	35.1	37.2	37.2
51–100	41.0	83.7	38.8	85.5	35.0	70.2	39.2	83.2	37.2	81.7	43.0	78.1	41.9	79.1
101–130	6.7	90.4	6.8	92.3	10.7	80.8	7.1	90.3	7.1	88.8	9.6	87.7	9.0	88.1
131–150	2.5	92.9	2.0	94.3	4.0	84.8	2.4	92.7	2.8	91.6	3.6	91.3	3.3	91.5
151–185	2.3	95.2	2.2	96.4	5.5	90.3	2.6	95.3	2.8	94.3	4.1	95.4	3.8	95.3
186–200	0.0	95.2	0.2	96.6	0.4	90.7	0.1	95.5	0.2	94.5	0.3	95.6	0.2	95.5
More than 200	0.3	95.5	0.1	96.7	0.4	91.1	0.2	95.6	0.4	94.8	0.5	96.2	0.5	96.0
Income reported as zero[a]	0.0	95.5	0.1	96.8	0.0	91.1	0.1	95.7	0.1	94.9	0.0	96.2	0.1	96.0
Not reported[b,c]	4.5	100.0	3.2	100.0	8.9	100.0	4.3	100.0	5.1	100.0	3.8	100.0	4.0	100.0

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Federal Poverty Guidelines calculations were based on income, income period, and household size as reported by State agencies. Values in this table represent a count of individual WIC participants.

[a] Zero incomes are reported separately and were excluded from income calculations. Some reporting State agencies may have used a value of zero to indicate missing information or adjunctive eligibility. Therefore, for PC2016, it was not possible to distinguish between households with missing income information and households that reported zero income.

[b] "Not reported" indicates the percentage of participants by participant category for whom data were not reported on income, income period, or size of economic unit. Mean and median incomes presented in this table do not include these participants.

C. Nutritional Risk Characteristics of Migrant WIC Participants

On average, more nutritional risks were reported for migrants than other participants. In 2016, more than one risk was reported for 74.4 percent of migrant participants[53] compared with 55.1 percent for the overall WIC population (see table 4.2). Table 7.7 presents the most common nutritional risks reported for migrant WIC participants; a summary of these follows.

- High weight-for-height/length was reported for more than half of migrant women in each certification category, as was the case for all women participants (see table 4.6). This risk was also reported for 32.6 percent of migrant children compared with 27.8 percent of all children participating in WIC (see table 4.8).
- Inappropriate nutrition practices were reported for more than half of all migrants, including 67.5 percent of migrant children (see table 7.8); these levels were similar to those for the overall WIC population (see tables 4.3 and 4.8).
- Homelessness/migrancy was reported for approximately half of migrants in each category and reported at the highest rate for children (54.3 percent). In contrast, this nutritional risk was assigned to 0.5 percent of participants in any certification category in the overall WIC population (see table 4.3). By definition, all migrants are at risk for homelessness/migrancy; variations in reporting can be explained partly by differences in State agency reporting policies.

Table 7.8 presents a breakdown of nutritional risks reported for migrant participants in 2016. These results can be compared with similar tables for the total WIC population (see tables 4.6, 4.7, and 4.8). One noteworthy difference is that only 3.5 percent of migrant women reported substance abuse as a risk compared with 9.6 percent of all WIC women. Other than for homelessness/migrancy, the nutritional risk distributions for migrants and nonmigrants were similar.

Nearly 3 in 10 migrant women (29.2 percent) and 12.6 percent of migrant children had hemoglobin and hematocrit levels below FNS-issued nutritional risk criteria (see table 7.9). Compared with all WIC women (see table 4.47), pregnant migrant women were similarly likely to have anemia, but breastfeeding migrant women were 8.2 percentage points and postpartum migrant women were 3.7 percentage points more likely to be anemic. Migrant children were similarly likely to have anemia compared with all WIC children (see table 4.49).

Table 7.10 presents the distribution of migrant infants and children in the upper and lower ranges of the CDC and WHO growth charts (CDC, 2016a, and WHO, 2006). Migrant children were more likely to be overweight compared with WIC children overall (see table 4.38). Among migrants, 34.6 percent of 1-year-olds were at or above the 90th percentile for weight-for-length, and 28.0 percent of children aged 2 and older were at or above the 90th percentile for BMI. In contrast, among all WIC children, 31.3 percent of 1-year-olds were at or above the 90th percentile for weight-for-length, and 22.2 percent of children aged 2 and older were at or above the 90th percentile for BMI (see table 4.38).

[53] Migrant WIC statistics from special tabulations are not presented here.

Table 7.7. Percentage of Nutritional Risks Reported for at Least 15 Percent of Migrant Participants by Participant Category

Participant Category and Specific Risk	Percent
Total Migrant Participants *(N)*	37,246
Pregnant Women *(N)*	3,252
General obstetrical risks	33.6
Homelessness/Migrancy	51.0
Inappropriate growth or weight gain pattern	55.4
Inappropriate nutrition practices	43.2
Prepregnancy high weight-for-height	59.9
Breastfeeding Women *(N)*	3,494
Breastfeeding mother or infant dyad	46.9
General obstetrical risks	21.6
Hematocrit or hemoglobin below FNS criteria	40.2
High weight-for-height	56.6
Homelessness/Migrancy	52.7
Inappropriate growth or weight gain pattern	26.3
Inappropriate nutrition practices	33.8
Nutrition-related risk conditions	20.0
Postpartum Women *(N)*	1,858
General obstetrical risks	25.7
Hematocrit or hemoglobin below FNS criteria	39.6
High weight-for-height	56.8
Homelessness/Migrancy	48.0
Inappropriate growth or weight gain pattern	29.2
Inappropriate nutrition practices	35.9
Nutrition-related risk conditions	20.1
Infants *(N)*	7,534
High weight-for-height/length	15.0
Homelessness/Migrancy	51.8
Inappropriate nutrition practices	33.0
Infant of a WIC-eligible mother or mother at risk during pregnancy	73.2
Children *(N)*	21,108
High weight-for-height/length	32.6
Homelessness/Migrancy	54.3
Inappropriate nutrition practices	67.5

Note
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Table 7.8. Distribution of Migrant Participants in Participant Category by Specific Nutritional Risk Reported

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Migrants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Migrant Participants	3,252	–	3,494	–	1,858	–	8,604	–	7,534	–	21,108	–	37,246	–
Anthropometric	2,562	78.8	2,268	64.9	1,242	66.8	6,072	70.6	2,976	39.5	10,662	50.5	19,710	52.9
Low weight-for-height	72	2.2	72	2.1	40	2.2	184	2.1	515	6.8	743	3.5	1,442	3.9
High weight-for-height/length	1,949	59.9	1,976	56.6	1,055	56.8	4,980	57.9	1,131	15.0	6,871	32.6	12,982	34.9
Short stature	1	< 0.1	0	0.0	0	0.0	1	< 0.1	637	8.5	2,332	11.0	2,970	8.0
Inappropriate growth or weight gain pattern	1,800	55.4	919	26.3	543	29.2	3,262	37.9	177	2.3	1,842	8.7	5,281	14.2
Low birthweight or premature birth	0	0.0	0	0.0	0	0.0	0	0.0	1,005	13.3	748	3.5	1,753	4.7
Other anthropometric	0	0.0	0	0.0	0	0.0	0	0.0	438	5.8	14	0.1	452	1.2
Biochemical	295	9.1	1,405	40.2	735	39.6	2,435	28.3	53	0.7	2,666	12.6	5,154	13.8
Hematocrit or hemoglobin below FNS criteria	295	9.1	1,405	40.2	735	39.6	2,435	28.3	53	0.7	2,661	12.6	5,149	13.8
Other biochemical test results that indicate nutritional abnormality	0	0.0	0	0.0	1	0.1	1	< 0.1	0	0.0	7	< 0.1	8	< 0.1
Clinical, Health, and Medical	1,624	49.9	1,591	45.5	973	52.4	4,188	48.7	329	4.4	1,489	7.1	6,006	16.1
Pregnancy-induced conditions	264	8.1	251	7.2	152	8.2	667	7.8	0	0.0	0	0.0	667	1.8
Delivery of low-birthweight or premature infant	155	4.8	264	7.6	148	8.0	567	6.6	0	0.0	0	0.0	567	1.5
Prior stillbirth, fetal, or neonatal death	108	3.3	16	0.5	66	3.6	190	2.2	0	0.0	0	0.0	190	0.5

Broad Risk Category and Specific Nutritional Risk	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Migrants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
General obstetrical risks	1,093	33.6	756	21.6	477	25.7	2,326	27.0	0	0.0	0	0.0	2,326	6.2
Nutrition-related risk conditions	274	8.4	700	20.0	373	20.1	1,347	15.7	325	4.3	912	4.3	2,584	6.9
Substance abuse	186	5.7	34	1.0	81	4.4	301	3.5	1	< 0.1	3	< 0.1	305	0.8
Other health risks	89	2.7	41	1.2	27	1.5	157	1.8	3	< 0.1	620	2.9	780	2.1
Dietary	1,525	46.9	1,361	39.0	767	41.3	3,653	42.5	2,490	33.1	15,015	71.1	21,158	56.8
Failure to meet Dietary Guidelines for Americans	160	4.9	189	5.4	109	5.9	458	5.3	2	< 0.1	936	4.4	1,396	3.7
Inappropriate nutrition practices	1,405	43.2	1,181	33.8	667	35.9	3,253	37.8	2,488	33.0	14,247	67.5	19,988	53.7
Other Risks	1,730	53.2	3,077	88.1	952	51.2	5,759	66.9	7,227	95.9	11,922	56.5	24,908	66.9
Regression/ Transfer/ Presumptive eligibility	39	1.2	51	1.5	41	2.2	131	1.5	226	3.0	530	2.5	887	2.4
Breastfeeding mother and infant dyad	3	0.1	1,637	46.9	40	2.2	1,680	19.5	566	7.5	0	0.0	2,246	6.0
Infant of a WIC-eligible mother or mother at risk	0	0.0	0	0.0	0	0.0	0	0.0	5,517	73.2	33	0.2	5,550	14.9
Homelessness/ Migrancy	1,658	51.0	1,843	52.7	891	48.0	4,392	51.0	3,905	51.8	11,454	54.3	19,751	53.0
Other nutritional risks	98	3.0	32	0.9	32	1.7	162	1.9	96	1.3	205	1.0	463	1.2
No Risk Reported	17	0.5	30	0.9	15	0.8	62	0.7	14	0.2	4	< 0.1	80	0.2

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

For PC2016, State agencies could report up to 10 nutritional risks for each participant. This table examines all risks reported for every participant. When multiple risks (or risk criteria) within the same risk category were reported for one person, these risks were combined and counted one time to accurately calculate the number and percentage of participants assigned a specific nutritional risk or broad risk category. Nonetheless, because of the reporting of multiple risks, rows total more than 100.0 percent.

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

Table 7.9. Distribution of Migrant Participants by Participant Category and Anemia Level

Anemia Level	Migrant Participants	
	Number	Percent
Migrant Women		
Total Women	8,604	
Below FNS-issued nutritional risk criteria	2,516	29.2
Not reported	632	7.3
Pregnant Women	3,252	
Below FNS-issued nutritional risk criteria	283	8.7
Not reported	302	9.3
Breastfeeding Women	3,494	
Below FNS-issued nutritional risk criteria	1,442	41.3
Not reported	195	5.6
Postpartum Women	1,858	
Below FNS-issued nutritional risk criteria	791	42.6
Not reported	135	7.3
Migrant Children		
Total Children	21,108	
Below FNS-issued nutritional risk criteria	2,655	12.6
Not reported	2,237	10.6
1-Year-Old Children[a]	8,021	
Below FNS-issued nutritional risk criteria	1,295	16.1
Not reported	716	8.9
2-Year-Old Children[a]	5,185	
Below FNS-issued nutritional risk criteria	654	12.6
Not reported	616	11.9
3-Year-Old Children[a]	5,030	
Below FNS-issued nutritional risk criteria	484	9.6
Not reported	571	11.4
4-Year-Old Children[a]	2,871	
Below FNS-issued nutritional risk criteria	222	7.7
Not reported	334	11.6
Age Not Reported	1	< 0.1

Notes
Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.
For the percentage of participants with hematologic test results that fell below FNS nutritional risk criteria, the calculation denominators included participants for whom no data were reported, so the percentages reported here represent lower bounds.
WIC regulations permit State and local agencies to dispense with hematological testing for infants younger than 9 months as well as for children whose test results are found to be within normal ranges at the last certification. However, blood tests should be performed on such children at least once in every 12-month period.
FNS-issued nutritional risk criteria for hemoglobin and hematocrit values are based on CDC recommendations (CDC, 1998). Participants with blood measures below the cutoff values are considered to be at risk.
"Not reported" indicates the percentage of participants by participant category for whom data were not reported on blood measure or expected date of delivery.
[a] Age was calculated in months using the birth date and date of blood measurement.

Table 7.10. Percentage of Infant and Child Migrant Participants by Selected Anthropometric Measures

WHO/NCHS-CDC Percentiles[a]	Percent[b]		
	Infants	Children	
		1 Year Old	2+ Years Old
Total Migrant Participants *(N)*	7,534	7,311	13,795
Weight-for-Length/BMI[b,c]			
≤ 2.3	4.1	0.5	1.1
≤ 5	6.3	0.9	2.0
≤ 10	10.1	1.9	4.0
≥ 85	N/A	N/A	35.9
≥ 90	21.6	34.6	28.0
≥ 95	13.5	23.0	18.5
≥ 97.7	8.4	14.7	12.1
Not reported	4.4	2.7	2.8
Weight-for-Age[d]			
< 3	5.6	1.4	1.9
< 5	7.0	2.0	3.1
< 10	10.8	4.0	5.9
≥ 90	10.8	21.9	20.5
≥ 95	5.4	13.3	13.4
≥ 97	3.7	9.3	10.1
Not reported	2.3	2.4	2.6
Height/Length-for-Age[d]			
≤ 2.3	9.3	6.9	2.6
≤ 5	13.7	12.5	5.1
≤ 10	19.5	20.1	10.0
≥ 90	10.2	7.5	9.8
≥ 95	6.8	4.3	5.2
≥ 97	4.2	2.8	3.4
Not reported	3.0	2.5	2.7

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

Anthropometric criteria for infants and 1-year-old children were calculated using programming code for pediatric anthropometry developed by WHO based on WHO Child Growth Standards (WHO, 2006).

WHO reference curves are based on data from the WHO Multicentre Growth Reference Study conducted from 1997 to 2003 (WHO, 2006).

Anthropometric criteria for children aged 2 and older were calculated using programming code for pediatric anthropometry developed by CDC based on current growth charts (Kuczmarski et al., 2002).

NCHS-CDC reference curves are based on data from a series of national health examination surveys conducted by NCHS from 1963 to 1994 (CDC, 2002).

Age is not reported for two migrant children.

N/A = not applicable

WIC regulations define an infant as a participant who at certification is younger than 1 year of age and would be classified as a child at the age of 366 days (the first birthday).

[a] Percentiles reported in this table are cumulative. For example, the < 5th category includes infants in the ≤ 2.3rd percentile, and the ≥ 95th category includes infants in the ≥ 97.7th percentile.

[b] It is assumed that length for an infant is recumbent length.

[c] Weight-for-length was used to calculate percentiles for infants and 1-year-old children. BMI was used to calculate percentiles for children aged 2 and older.

[d] Age was calculated in months using the birth date and the date height/length and weight were measured.

D. WIC Risk Priority Levels of Migrant Participants

More than two-thirds of migrant WIC participants (69.3 percent) were assigned Risk Priority Levels I, II, or III, which are associated with anthropometric, biochemical, and clinical risks (see table 7.11). Slightly less than one-quarter of migrant participants (22.9 percent) were assigned Priority Level V, indicating inadequate dietary patterns. About the same proportion (22.5 percent) of participants in the overall WIC population were assigned Priority Level V (see table 5.2).

Priority Level VII is for individuals certified solely because of migrancy, homelessness, or risk of regression to a less-healthy nutritional status and is used to certify migrants who cannot be assigned to a higher priority level. Priority Level VII was assigned to only 0.3 percent of all migrant participants compared with 0.2 percent of the general WIC population.

Overall, the distribution of risk priority levels was similar for migrants and the overall WIC population. The differences were 3 percentage points or less across all certification categories, with the largest gap for Priority Level II; 3.6 percent of migrants were assigned this priority level compared with 6.2 percent of the general WIC population.

Table 7.11. Distribution of Migrant Participants in Participant Category by Risk Priority Level

Risk Priority Level	Pregnant Women		Breastfeeding Women		Postpartum Women		Total Women		Infants		Children		Total Migrant Participants	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Migrant Participants *(N)*	3,252	–	3,494	–	1,858	–	8,604	–	7,534	–	21,108	–	37,246	–
Priority Reported	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I[a,b]	2,904	89.3	3,246	92.9	28	1.5	6,178	71.8	5,288	70.2	94	0.4	11,560	31.0
II	0	0.0	21	0.6	0	0.0	21	0.2	1,326	17.6	0	0.0	1,347	3.6
III	0	0.0	3	0.1	545	29.3	548	6.4	1	< 0.1	12,357	58.5	12,906	34.7
IV[b]	335	10.3	200	5.7	23	1.2	558	6.5	846	11.2	23	0.1	1,427	3.8
V	1	< 0.1	5	0.1	8	0.4	14	0.2	18	0.2	8,480	40.2	8,512	22.9
VI	2	0.1	8	0.2	1,233	66.4	1,243	14.4	0	0.0	0	0.0	1,243	3.3
VII	3	0.1	4	0.1	6	0.3	13	0.2	24	0.3	72	0.3	109	0.3
No Priority Reported	7	0.2	7	0.2	15	0.8	29	0.3	31	0.4	82	0.4	142	0.4

Notes

Percentages may not add to 100.0, and subtotals may not add to totals, because of rounding.

In the migrant population, about 0.7 percent of participants who were classified as 1-year-old children were in fact 11-month-old infants who were reclassified as children without being formally recertified; similarly, about 0.1 percent of WIC participants who were classified as infants were older than 366 days (the first birthday).

[a] A small proportion of postpartum women and children may not have had their State agency-level records or priorities updated in State agency-maintained management information systems when they were recertified for WIC in different certification categories.

[b] Children are not eligible for Priorities I, II, and IV. Apparent inconsistencies in the assignation of these priority levels and certification as a child may be largely because of State agency-level automated procedures, which routinely reassign infants as children at the age of 366 days without revising assigned priorities.

Abbreviations and Acronyms

BMI	body mass index
CDC	Centers for Disease Control and Prevention
EBT	electronic benefit transfer
FDPIR	Food Distribution Program on Indian Reservations
FNS	Food and Nutrition Service
FI	food instrument
HHS	U.S. Department of Health and Human Services
IOM	Institute of Medicine
ITO	Indian Tribal Organization
LAD	Local Agency Directory
MDS	Minimum Data Set
NCHS	National Center for Health Statistics
NHLBI	National Heart, Lung, and Blood Institute
NIH	National Institutes of Health
OMB	Office of Management and Budget
PC	participant and program characteristics
SDS	Supplemental Data Set
SNAP	Supplemental Nutrition Assistance Program
TANF	Temporary Assistance for Needy Families
USDA	U.S. Department of Agriculture
WHO	World Health Organization
WIC	Special Supplemental Nutrition Program for Women, Infants and Children

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