



Telling  
the story  
of Michigan's  
mothers  
and  
babies.



# 2021 Birth Year Maternal and Infant Health Summary Tables

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Elizabeth Hertel, MBA  
Director, Michigan Department of Health and Human Services

Sarah Lyon-Callo, PhD, MA, MS  
Acting Deputy Director, Public Health Administration  
Michigan Department of Health and Human Services

Kory Groetsch, MS  
Acting Director, Bureau of Epidemiology and Population Health  
Michigan Department of Health and Human Services

Mary Kleyn, MS  
Director, Lifecourse Epidemiology and Genomics Division  
Michigan Department of Health and Human Services

Chris Fussman, MS  
Manager, Maternal and Child Health Epidemiology Section  
PRAMS Principal Investigator  
Michigan Department of Health and Human Services

### **PRAMS Staff**

Hannah Sauter, MPH - PRAMS Project Coordinator  
Jill Hardy - PRAMS Operations Coordinator  
Peterson Haak - PRAMS Analyst  
Kendra Smith - PRAMS Operations Assistant and Interviewer  
Mei You - Sampling Statistician

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The Division for Vital Records and Health Statistics and the Bloustein Center for Survey Research at Rutgers University provided data collection for the 2021 Michigan PRAMS.

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Michigan's Pregnancy Risk Assessment Monitoring System (MI PRAMS) is an annual population-based survey of new mothers, assessing behaviors and experiences around the time of pregnancy. MI PRAMS is a collaboration between the Centers for Disease Control and Prevention (CDC) and the Michigan Department of Health and Human Services (MDHHS). MI PRAMS operations are housed within the Maternal and Child Health Epidemiology Section, a part of the Lifecourse Epidemiology and Genomics Division.

MI PRAMS utilizes a mixed-mode methodology in order to gather information from women who were selected to participate in the survey. This combination web/mail/telephone survey methodology is used in order to maximize response rates. Data collection for the 2021 birth year was conducted by the Michigan Department of Health and Human Services (web and mail) and the Bloustein Center for Survey Research at Rutgers University (phone).

MI PRAMS surveys approximately one to two percent of resident mothers who have delivered a live born infant in Michigan within each calendar year. MI PRAMS mothers are selected using a stratified random sample of live birth certificates. In 2021, the sample was selected from within the following strata:

Stratum 1: Low birthweight infants, entire state

Stratum 2: Black mothers, normal birthweight infants, southeast Michigan [St. Clair, Macomb, Oakland, Livingston, Washtenaw, Wayne, and Monroe counties]

Stratum 3: All other mothers, normal birthweight infants, southeast Michigan

Stratum 4: Black mothers, normal birthweight infants, all non-southeast counties

Stratum 5: All other mothers, normal birthweight infants, all non-southeast counties

In 2021, 2,566 mothers were selected for MI PRAMS and 1,374 completed the survey, for an unweighted response rate of 53.5 percent. After adjusting for differing probabilities of selection within each stratum, the weighted response rate is 57.0 percent. Survey results from these 1,374 respondents are weighted to represent the approximately 101,632 pregnancies resulting in live births in 2021. It is worth noting that - due to multiple births - the number of *pregnancies* each year will be lower than the overall number of *live born infants*. Thus, MI PRAMS is technically representative of the population of new mothers, a number that is nearly equal to the number of new infants.

The 2021 birth year is the sixth year of Phase 8 of the PRAMS survey. The Phase 7 version of PRAMS was used from 2012 through 2015. The prior phase, Phase 6, ran from 2009 through 2011. Many questions in the survey are asked with identical wording across survey phases, so some comparisons can be made over time. There are a few topics where wording changes across survey phases making direct comparison over time problematic or impossible. These include pre-pregnancy and postpartum depression, pregnancy intention, infant cosleeping, and pre-pregnancy income. A multi-phase topic map can be found on the MI PRAMS reports webpage at: <https://www.michigan.gov/prams>

New survey topics covered in Phase 8 include marijuana and prescription opioid usage; e-cigarette and hookah usage; breastfeeding: reasons for not initiating breastfeeding, information sources, breast pumps; access to basic needs; infant care givers; adverse childhood experiences (ACEs); maternal resilience; and maternal sleep. A comparison of topics between this report and reports from the prior survey phase can be found in the Appendix.

**Table 1. Distribution of selected maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                        | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|---------------------------------------|---------------------|-----------------------|---------------------|----------------------------|
| <b>Maternal Age</b>                   |                     |                       |                     |                            |
| Total                                 | 1,374               | 101,632               | 100.0               |                            |
| <18 Years                             | 22                  | 1,223                 | 1.2**               | (0.7-2.2)                  |
| 18-19 Years                           | 35                  | 1,947                 | 1.9                 | (1.2-3.1)                  |
| 20-24 Years                           | 267                 | 19,695                | 19.4                | (16.9-22.1)                |
| 25-29 Years                           | 421                 | 31,164                | 30.7                | (27.7-33.8)                |
| 30-34 Years                           | 423                 | 31,821                | 31.3                | (28.4-34.4)                |
| 35-39 Years                           | 170                 | 13,619                | 13.4                | (11.3-15.8)                |
| 40+ Years                             | 36                  | 2,164                 | 2.1                 | (1.4-3.2)                  |
| <b>Race/Ethnicity</b>                 |                     |                       |                     |                            |
| Total                                 | 1,368               | 100,912               | 100.0               |                            |
| White, non-Hispanic                   | 639                 | 66,627                | 66.0                | (63.5-68.5)                |
| Black, non-Hispanic                   | 533                 | 17,603                | 17.4                | (16.7-18.2)                |
| Hispanic                              | 69                  | 6,347                 | 6.3                 | (4.8-8.2)                  |
| Asian/Pacific Islander, non-Hispanic  | 45                  | 4,142                 | 4.1                 | (3.0-5.6)                  |
| Other, non-Hispanic                   | 82                  | 6,193                 | 6.1                 | (4.7-7.9)                  |
| <b>Education</b>                      |                     |                       |                     |                            |
| Total                                 | 1,369               | 101,182               | 100.0               |                            |
| <High School                          | 136                 | 9,543                 | 9.4                 | (7.6-11.7)                 |
| HS Grad/GED                           | 374                 | 25,756                | 25.5                | (22.7-28.5)                |
| Some College                          | 414                 | 28,080                | 27.8                | (25.0-30.7)                |
| College Degree+                       | 445                 | 37,803                | 37.4                | (34.4-40.5)                |
| <b>Pre-Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Total                                 | 1,331               | 98,899                | 100.0               |                            |
| Private                               | 737                 | 60,636                | 61.3                | (58.1-64.5)                |
| Medicaid/Public                       | 537                 | 33,872                | 34.2                | (31.2-37.4)                |
| Uninsured                             | 57                  | 4,392                 | 4.4                 | (3.2-6.1)                  |
| <b>Marital Status</b>                 |                     |                       |                     |                            |
| Total                                 | 1,366               | 100,936               | 100.0               |                            |
| Married                               | 704                 | 61,256                | 60.7                | (57.6-63.7)                |
| Other                                 | 662                 | 39,680                | 39.3                | (36.3-42.4)                |
| <b>Parity</b>                         |                     |                       |                     |                            |
| Total                                 | 1,371               | 101,436               | 100.0               |                            |
| No Prior Live Births                  | 573                 | 39,801                | 39.2                | (36.2-42.4)                |
| 1                                     | 410                 | 33,041                | 32.6                | (29.6-35.7)                |
| 2+                                    | 388                 | 28,594                | 28.2                | (25.3-31.3)                |
| <b>Last Year's Household Income</b>   |                     |                       |                     |                            |
| Total                                 | 1,187               | 89,047                | 100.0               |                            |
| <\$16,000                             | 217                 | 12,223                | 13.7                | (11.6-16.2)                |
| \$16,001-\$24,000                     | 152                 | 8,713                 | 9.8                 | (8.0-12.0)                 |
| \$24,001-\$40,000                     | 196                 | 14,345                | 16.1                | (13.7-18.9)                |
| \$40,001-\$60,000                     | 180                 | 15,088                | 16.9                | (14.4-19.8)                |
| \$60,001+                             | 442                 | 38,678                | 43.4                | (40.1-46.8)                |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.



**Table 2. Distribution of pre-pregnancy maternal body mass index categories, MI PRAMS, 2021**

| Body Mass Index (BMI)           | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>BMI Category<sup>†</sup></b> |                  |                    |                  |                         |
| Underweight                     | 28               | 1,746              | 1.7              | (1.0-2.8)               |
| Normal Weight                   | 538              | 40,489             | 39.8             | (36.7-43.1)             |
| Overweight                      | 347              | 26,497             | 26.1             | (23.3-29.0)             |
| Obese                           | 461              | 32,900             | 32.4             | (29.4-35.5)             |

<sup>†</sup>Based on IOM 2009 weight categories. Weight categories are calculated using pre-pregnancy body mass index (BMI).

BMI formula = (Weight in pounds \* 0.45) / [(Height in inches \* 0.025)<sup>2</sup>]

Underweight BMI = <18.5, Normal weight BMI = 18.5-24.9, Overweight BMI = 25-29.9, Obese BMI = >30.

Reference: National Research Council. (2009). *Weight gain during pregnancy: reexamining the guidelines*. National Academies Press.

**Table 3. Prevalence of pre-pregnancy underweight BMI by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                        | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|---------------------------------------|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                          | 28                  | 1,746                 | 1.7                 | (1.0-2.8)                  |
| <b>Maternal Age</b>                   |                     |                       |                     |                            |
| <20 Years                             |                     |                       | *                   |                            |
| 20-29 Years                           | 22                  | 1,430                 | 2.8                 | (1.6-4.9)                  |
| 30+ Years                             |                     |                       | *                   |                            |
| <b>Race/Ethnicity</b>                 |                     |                       |                     |                            |
| White, non-Hispanic                   | 12                  | 1,151                 | 1.7**               | (0.9-3.4)                  |
| Black, non-Hispanic                   | 12                  | 402                   | 2.3**               | (1.3-4.1)                  |
| Hispanic                              |                     |                       | *                   |                            |
| Asian/Pacific Islander, non-Hispanic  |                     |                       | *                   |                            |
| Other, non-Hispanic                   |                     |                       | *                   |                            |
| <b>Education</b>                      |                     |                       |                     |                            |
| <High School                          |                     |                       | *                   |                            |
| HS Grad/GED                           | 11                  | 759                   | 2.9**               | (1.3-6.6)                  |
| Some College                          | 9                   | 387                   | 1.4**               | (0.6-3.1)                  |
| College Degree+                       | 6                   | 363                   | 1.0**               | (0.4-2.5)                  |
| <b>Pre-Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                               | 8                   | 602                   | 1.0**               | (0.4-2.4)                  |
| Medicaid/Public                       | 16                  | 895                   | 2.6**               | (1.3-5.3)                  |
| Uninsured                             |                     |                       | *                   |                            |
| <b>Marital Status</b>                 |                     |                       |                     |                            |
| Married                               | 10                  | 755                   | 1.2**               | (0.6-2.7)                  |
| Other                                 | 17                  | 953                   | 2.4**               | (1.2-4.6)                  |
| <b>Parity</b>                         |                     |                       |                     |                            |
| No previous live birth                | 6                   | 305                   | 0.8**               | (0.3-2.0)                  |
| 1                                     | 8                   | 714                   | 2.2**               | (1.0-4.7)                  |
| 2+                                    | 14                  | 727                   | 2.5**               | (1.1-5.7)                  |
| <b>Last Year's Household Income</b>   |                     |                       |                     |                            |
| <\$16,000                             |                     |                       | *                   |                            |
| \$16,001-\$24,000                     |                     |                       | *                   |                            |
| \$24,001-\$40,000                     |                     |                       | *                   |                            |
| \$40,001-\$60,000                     |                     |                       | *                   |                            |
| \$60,001+                             |                     |                       | *                   |                            |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 4. Prevalence of pre-pregnancy normal weight BMI by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 538              | 40,489             | 39.8             | (36.7-43.1)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 39               | 2,275              | 71.8             | (53.6-84.9)             |
| 20-29 Years                           | 265              | 19,387             | 38.1             | (33.7-42.7)             |
| 30+ Years                             | 234              | 18,826             | 39.5             | (35.1-44.2)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 273              | 27,042             | 40.6             | (36.4-44.9)             |
| Black, non-Hispanic                   | 187              | 6,020              | 34.2             | (29.9-38.8)             |
| Hispanic                              | 14               | 1,297              | 20.4             | (11.8-32.9)             |
| Asian/Pacific Islander, non-Hispanic  | 27               | 2,513              | 60.7             | (44.2-75.0)             |
| Other, non-Hispanic                   | 35               | 3,353              | 54.1             | (40.8-66.9)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 60               | 3,936              | 41.2             | (30.6-52.8)             |
| HS Grad/GED                           | 140              | 9,203              | 35.7             | (29.7-42.3)             |
| Some College                          | 135              | 9,168              | 32.6             | (27.2-38.6)             |
| College Degree+                       | 201              | 18,130             | 48.0             | (42.8-53.2)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 306              | 25,586             | 42.2             | (38.1-46.4)             |
| Medicaid/Public                       | 185              | 11,449             | 33.8             | (28.6-39.4)             |
| Uninsured                             | 29               | 2,309              | 52.6             | (36.6-68.0)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 286              | 25,185             | 41.1             | (37.0-45.3)             |
| Other                                 | 251              | 15,234             | 38.4             | (33.5-43.6)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 248              | 17,244             | 43.3             | (38.5-48.3)             |
| 1                                     | 168              | 13,964             | 42.3             | (36.6-48.1)             |
| 2+                                    | 121              | 9,254              | 32.4             | (26.6-38.7)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 85               | 5,019              | 41.1             | (32.4-50.3)             |
| \$16,001-\$24,000                     | 49               | 2,750              | 31.6             | (22.7-42.0)             |
| \$24,001-\$40,000                     | 69               | 5,266              | 36.7             | (28.7-45.5)             |
| \$40,001-\$60,000                     | 49               | 4,650              | 30.8             | (23.3-39.5)             |
| \$60,001+                             | 188              | 16,992             | 43.9             | (38.8-49.2)             |

**Table 5. Prevalence of pre-pregnancy overweight BMI by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                        | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|---------------------------------------|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                          | 347                 | 26,497                | 26.1                | (23.3-29.0)                |
| <b>Maternal Age</b>                   |                     |                       |                     |                            |
| <20 Years                             | 11                  | 582                   | 18.4**              | (8.9-34.1)                 |
| 20-29 Years                           | 170                 | 13,441                | 26.4                | (22.5-30.8)                |
| 30+ Years                             | 166                 | 12,473                | 26.2                | (22.3-30.5)                |
| <b>Race/Ethnicity</b>                 |                     |                       |                     |                            |
| White, non-Hispanic                   | 161                 | 17,207                | 25.8                | (22.2-29.8)                |
| Black, non-Hispanic                   | 128                 | 4,277                 | 24.3                | (20.5-28.6)                |
| Hispanic                              | 19                  | 1,914                 | 30.1                | (19.1-44.1)                |
| Asian/Pacific Islander, non-Hispanic  | 12                  | 1,100                 | 26.5                | (14.6-43.4)                |
| Other, non-Hispanic                   | 24                  | 1,644                 | 26.6                | (16.7-39.5)                |
| <b>Education</b>                      |                     |                       |                     |                            |
| <High School                          | 31                  | 2,131                 | 22.3                | (14.3-33.1)                |
| HS Grad/GED                           | 88                  | 6,314                 | 24.5                | (19.2-30.7)                |
| Some College                          | 106                 | 7,684                 | 27.4                | (22.3-33.1)                |
| College Degree+                       | 122                 | 10,368                | 27.4                | (23.0-32.4)                |
| <b>Pre-Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                               | 194                 | 16,782                | 27.7                | (24.1-31.6)                |
| Medicaid/Public                       | 129                 | 7,772                 | 22.9                | (18.6-28.0)                |
| Uninsured                             | 10                  | 1,039                 | 23.6**              | (12.0-41.2)                |
| <b>Marital Status</b>                 |                     |                       |                     |                            |
| Married                               | 190                 | 16,974                | 27.7                | (24.1-31.7)                |
| Other                                 | 156                 | 9,502                 | 23.9                | (19.8-28.6)                |
| <b>Parity</b>                         |                     |                       |                     |                            |
| No previous live birth                | 140                 | 10,055                | 25.3                | (21.2-29.8)                |
| 1                                     | 95                  | 7,891                 | 23.9                | (19.2-29.2)                |
| 2+                                    | 110                 | 8,382                 | 29.3                | (23.8-35.5)                |
| <b>Last Year's Household Income</b>   |                     |                       |                     |                            |
| <\$16,000                             | 42                  | 1,857                 | 15.2                | (10.1-22.3)                |
| \$16,001-\$24,000                     | 45                  | 2,466                 | 28.3                | (19.8-38.7)                |
| \$24,001-\$40,000                     | 41                  | 3,482                 | 24.3                | (17.4-32.8)                |
| \$40,001-\$60,000                     | 51                  | 4,111                 | 27.2                | (20.2-35.7)                |
| \$60,001+                             | 128                 | 11,484                | 29.7                | (25.1-34.8)                |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 6. Prevalence of pre-pregnancy obese BMI by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                        | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|---------------------------------------|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                          | 461                 | 32,900                | 32.4                | (29.4-35.5)                |
| <b>Maternal Age</b>                   |                     |                       |                     |                            |
| <20 Years                             |                     |                       | *                   |                            |
| 20-29 Years                           | 231                 | 16,600                | 32.6                | (28.4-37.2)                |
| 30+ Years                             | 224                 | 16,029                | 33.7                | (29.4-38.2)                |
| <b>Race/Ethnicity</b>                 |                     |                       |                     |                            |
| White, non-Hispanic                   | 193                 | 21,228                | 31.9                | (27.9-36.1)                |
| Black, non-Hispanic                   | 206                 | 6,903                 | 39.2                | (34.8-43.9)                |
| Hispanic                              | 35                  | 3,110                 | 49.0                | (35.8-62.4)                |
| Asian/Pacific Islander, non-Hispanic  |                     |                       | *                   |                            |
| Other, non-Hispanic                   | 21                  | 1,162                 | 18.8                | (10.4-31.5)                |
| <b>Education</b>                      |                     |                       |                     |                            |
| <High School                          | 43                  | 3,239                 | 33.9                | (23.9-45.7)                |
| HS Grad/GED                           | 135                 | 9,481                 | 36.8                | (30.6-43.5)                |
| Some College                          | 164                 | 10,841                | 38.6                | (33.0-44.6)                |
| College Degree+                       | 116                 | 8,943                 | 23.7                | (19.5-28.4)                |
| <b>Pre-Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                               | 229                 | 17,666                | 29.1                | (25.5-33.1)                |
| Medicaid/Public                       | 207                 | 13,755                | 40.6                | (35.1-46.4)                |
| Uninsured                             | 16                  | 949                   | 21.6**              | (11.5-37.0)                |
| <b>Marital Status</b>                 |                     |                       |                     |                            |
| Married                               | 218                 | 18,342                | 29.9                | (26.2-33.9)                |
| Other                                 | 238                 | 13,990                | 35.3                | (30.5-40.4)                |
| <b>Parity</b>                         |                     |                       |                     |                            |
| No previous live birth                | 179                 | 12,197                | 30.6                | (26.3-35.3)                |
| 1                                     | 139                 | 10,472                | 31.7                | (26.5-37.4)                |
| 2+                                    | 143                 | 10,232                | 35.8                | (29.9-42.2)                |
| <b>Last Year's Household Income</b>   |                     |                       |                     |                            |
| <\$16,000                             | 84                  | 5,099                 | 41.7                | (33.0-51.0)                |
| \$16,001-\$24,000                     | 55                  | 3,411                 | 39.2                | (29.2-50.1)                |
| \$24,001-\$40,000                     | 80                  | 5,254                 | 36.6                | (28.7-45.3)                |
| \$40,001-\$60,000                     | 76                  | 6,178                 | 40.9                | (32.7-49.7)                |
| \$60,001+                             | 120                 | 9,658                 | 25.0                | (20.7-29.8)                |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 7. Prevalence of maternal health problems during the 3 months before pregnancy,  
MI PRAMS, 2021**

| <b>Maternal Health Problem</b>   | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|----------------------------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Types (non-exclusive)</b>     |                             |                               |                             |                                    |
| Anxiety                          | 459                         | 34,916                        | 34.5                        | (31.4-37.7)                        |
| Depression                       | 282                         | 21,127                        | 20.9                        | (18.3-23.8)                        |
| Anemia                           | 282                         | 17,808                        | 17.6                        | (15.3-20.2)                        |
| Asthma                           | 176                         | 11,758                        | 11.7                        | (9.8-13.9)                         |
| Polycystic Ovary Syndrome (PCOS) | 75                          | 5,972                         | 5.9                         | (4.6-7.7)                          |
| Thyroid Problems                 | 68                          | 5,684                         | 5.6                         | (4.3-7.4)                          |
| Hypertension                     | 93                          | 5,280                         | 5.3                         | (4.0-6.8)                          |
| Diabetes                         | 63                          | 4,640                         | 4.6                         | (3.4-6.3)                          |
| Heart Problems                   | 26                          | 2,442                         | 2.4                         | (1.5-3.8)                          |
| Epilepsy                         | 17                          | 1,313                         | 1.3                         | (0.7-2.3)                          |

**Table 8a. Prevalence of ANY health care visits in the year before pregnancy - including dental or mental health - with a doctor, nurse, or other healthcare worker by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 904              | 69,129             | 68.2             | (65.1-71.2)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 26               | 1,548              | 49.1             | (31.2-67.2)             |
| 20-29 Years                           | 430              | 32,355             | 63.9             | (59.2-68.3)             |
| 30+ Years                             | 448              | 35,226             | 74.0             | (69.8-77.9)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 483              | 49,569             | 74.5             | (70.5-78.2)             |
| Black, non-Hispanic                   | 306              | 10,024             | 57.3             | (52.6-61.9)             |
| Hispanic                              | 39               | 3,517              | 55.6             | (41.8-68.5)             |
| Asian/Pacific Islander, non-Hispanic  | 24               | 2,114              | 51.0             | (35.3-66.6)             |
| Other, non-Hispanic                   | 49               | 3,550              | 57.3             | (43.6-70.0)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 55               | 3,684              | 38.7             | (28.4-50.3)             |
| HS Grad/GED                           | 201              | 14,430             | 56.5             | (49.8-63.0)             |
| Some College                          | 278              | 19,251             | 68.6             | (62.8-73.8)             |
| College Degree+                       | 369              | 31,664             | 83.8             | (79.6-87.2)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 585              | 48,784             | 80.5             | (76.9-83.6)             |
| Medicaid/Public                       | 279              | 17,716             | 52.7             | (46.9-58.4)             |
| Uninsured                             | 16               | 1,422              | 32.4             | (18.9-49.6)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 534              | 46,805             | 76.6             | (72.8-80.0)             |
| Other                                 | 366              | 22,014             | 55.6             | (50.4-60.7)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 388              | 28,749             | 72.6             | (68.0-76.7)             |
| 1                                     | 284              | 22,986             | 69.7             | (63.9-74.9)             |
| 2+                                    | 229              | 17,197             | 60.2             | (53.7-66.3)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 106              | 6,249              | 51.3             | (42.2-60.3)             |
| \$16,001-\$24,000                     | 96               | 5,642              | 65.1             | (54.4-74.4)             |
| \$24,001-\$40,000                     | 117              | 8,471              | 59.2             | (50.3-67.5)             |
| \$40,001-\$60,000                     | 124              | 9,718              | 64.4             | (55.5-72.4)             |
| \$60,001+                             | 374              | 32,548             | 84.2             | (79.9-87.7)             |

**Table 8b. Prevalence of NO health care visits in the year before pregnancy - including dental or mental health - with a doctor, nurse, or other healthcare worker by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 462              | 32,250             | 31.8             | (28.8-34.9)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 30               | 1,607              | 50.9             | (32.8-68.8)             |
| 20-29 Years                           | 252              | 18,290             | 36.1             | (31.7-40.8)             |
| 30+ Years                             | 180              | 12,353             | 26.0             | (22.1-30.2)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 155              | 16,926             | 25.5             | (21.8-29.5)             |
| Black, non-Hispanic                   | 221              | 7,478              | 42.7             | (38.1-47.4)             |
| Hispanic                              | 29               | 2,809              | 44.4             | (31.5-58.2)             |
| Asian/Pacific Islander, non-Hispanic  | 21               | 2,028              | 49.0             | (33.4-64.7)             |
| Other, non-Hispanic                   | 33               | 2,644              | 42.7             | (30.0-56.4)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 79               | 5,823              | 61.3             | (49.7-71.6)             |
| HS Grad/GED                           | 167              | 11,109             | 43.5             | (37.0-50.2)             |
| Some College                          | 136              | 8,829              | 31.4             | (26.2-37.2)             |
| College Degree+                       | 76               | 6,138              | 16.2             | (12.8-20.4)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 152              | 11,852             | 19.5             | (16.4-23.1)             |
| Medicaid/Public                       | 250              | 15,903             | 47.3             | (41.6-53.1)             |
| Uninsured                             | 41               | 2,970              | 67.6             | (50.4-81.1)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 169              | 14,319             | 23.4             | (20.0-27.2)             |
| Other                                 | 289              | 17,545             | 44.4             | (39.3-49.6)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 180              | 10,859             | 27.4             | (23.3-32.0)             |
| 1                                     | 124              | 10,009             | 30.3             | (25.1-36.1)             |
| 2+                                    | 158              | 11,382             | 39.8             | (33.7-46.3)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 109              | 5,938              | 48.7             | (39.7-57.8)             |
| \$16,001-\$24,000                     | 53               | 3,025              | 34.9             | (25.6-45.6)             |
| \$24,001-\$40,000                     | 78               | 5,849              | 40.8             | (32.5-49.7)             |
| \$40,001-\$60,000                     | 56               | 5,370              | 35.6             | (27.6-44.5)             |
| \$60,001+                             | 68               | 6,130              | 15.8             | (12.3-20.1)             |



**Table 9. Type of healthcare visits among women in the 12 months before pregnancy, MI PRAMS, 2021**

| Type of visit                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Type of Visit (non-exclusive)</b> |                  |                    |                  |                         |
| Dentist                              | 548              | 43,920             | 63.6             | (59.8-67.3)             |
| Family doctor check up               | 565              | 41,649             | 60.2             | (56.3-64.0)             |
| OB/GYN check up                      | 521              | 39,912             | 57.8             | (53.8-61.7)             |
| Illness                              | 128              | 10,613             | 15.3             | (12.6-18.5)             |
| Family planning/Birth control        | 154              | 9,958              | 14.4             | (11.9-17.3)             |
| Depression/Anxiety                   | 133              | 9,816              | 14.2             | (11.6-17.2)             |
| Injury                               | 42               | 2,885              | 4.2              | (2.9-6.0)               |
| Other                                | 93               | 6,844              | 9.9              | (7.8-12.4)              |

**Table 10. Type of counseling/screening among women reporting any healthcare visits in the 12 months before pregnancy, MI PRAMS, 2021**

| Type of counseling/screening   | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Type (non-exclusive)</b>  |                  |                    |                  |                         |
| Smoking screening  | 591              | 44,350             | 64.6             | (60.7-68.3)             |
| Depression screening   | 539              | 40,490             | 59.4             | (55.5-63.3)             |
| Current job duties   | 519              | 38,716             | 56.6             | (52.6-60.5)             |
| Emotional and physical abuse screening   | 506              | 37,636             | 54.7             | (50.8-58.6)             |
| Family planning  | 414              | 32,454             | 47.4             | (43.4-51.3)             |
| Birth control  | 426              | 32,425             | 47.4             | (43.5-51.3)             |
| Folic acid vitamins  | 364              | 30,084             | 44.2             | (40.3-48.1)             |
| Healthy weight   | 404              | 30,203             | 44.0             | (40.1-48.0)             |
| STI discussions  | 385              | 28,730             | 41.9             | (38.1-45.9)             |
| Improving pre-conception health  | 360              | 27,628             | 40.3             | (36.5-44.2)             |
| Controlling medical conditions before pregnancy (e.g., diabetes/high blood pressure) | 307              | 23,370             | 34.1             | (30.5-38.0)             |
| HIV test administered  | 338              | 21,176             | 31.1             | (27.7-34.8)             |

**Table 11. Frequency of taking a folate-containing vitamin in the month before pregnancy, MI PRAMS, 2021**

| Frequency of vitamin use        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Frequency of vitamin use</b> |                  |                    |                  |                         |
| Didn't take a vitamin           | 628              | 46,167             | 45.5             | (42.2-48.7)             |
| 1-3 times per week              | 150              | 10,144             | 10.0             | (8.2-12.1)              |
| 4-6 times per week              | 90               | 6,883              | 6.8              | (5.3-8.6)               |
| Every day of the week           | 503              | 38,366             | 37.8             | (34.7-41.0)             |

**Table 12. Prevalence of consuming no folic acid containing vitamin in the month before pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 628              | 46,167             | 45.5             | (42.2-48.7)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 38               | 2,392              | 76.5**           | (59.1-88.0)             |
| 20-29 Years                           | 344              | 25,782             | 50.7             | (46.1-55.4)             |
| 30+ Years                             | 246              | 17,992             | 37.8             | (33.3-42.5)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 245              | 27,867             | 41.8             | (37.6-46.2)             |
| Black, non-Hispanic                   | 278              | 9,155              | 52.2             | (47.5-56.9)             |
| Hispanic                              | 39               | 3,812              | 60.1             | (46.4-72.3)             |
| Asian/Pacific Islander, non-Hispanic  | 21               | 1,888              | 45.6             | (30.4-61.6)             |
| Other, non-Hispanic                   | 42               | 2,984              | 48.2             | (35.1-61.6)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 73               | 5,739              | 60.4             | (49.0-70.7)             |
| HS Grad/GED                           | 223              | 15,531             | 60.3             | (53.7-66.6)             |
| Some College                          | 197              | 13,951             | 49.7             | (43.7-55.7)             |
| College Degree+                       | 133              | 10,830             | 28.6             | (24.2-33.6)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Uninsured                             | 266              | 21,522             | 35.5             | (31.6-39.6)             |
| Medicaid/Public                       | 306              | 20,468             | 60.6             | (54.9-65.9)             |
| Private                               | 37               | 2,841              | 64.7             | (48.1-78.4)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 248              | 22,225             | 36.3             | (32.3-40.5)             |
| Other                                 | 377              | 23,856             | 60.2             | (55.1-65.1)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 255              | 17,752             | 44.7             | (39.8-49.6)             |
| 1                                     | 169              | 14,035             | 42.5             | (36.8-48.4)             |
| 2+                                    | 203              | 14,311             | 50.0             | (43.6-56.5)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 126              | 7,516              | 61.6             | (52.7-69.8)             |
| \$16,001-\$24,000                     | 79               | 4,600              | 52.9             | (42.3-63.2)             |
| \$24,001-\$40,000                     | 104              | 8,147              | 56.8             | (48.0-65.2)             |
| \$40,001-\$60,000                     | 85               | 7,239              | 48.0             | (39.4-56.7)             |
| \$60,001+                             | 130              | 11,336             | 29.3             | (24.7-34.4)             |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

Michigan PRAMS asks respondents about several similar yet distinct concepts around pregnancy intention and contraceptive behavior. To measure pregnancy intention, PRAMS asks mothers to think about the time just before they became pregnant. Mothers report how they felt about becoming pregnant. Respondents can report that they wanted to be pregnant:

- sooner
- right at that time
- later
- not then or at any time in the future

Mothers who wanted to be pregnant sooner or right when they got pregnant, combined, make up those with an "intended" pregnancy. Those who wanted to be pregnant either never or sometime in the future had pregnancies that are classified as "unintended."

Starting with Phase 7 of MI PRAMS (2012-2015) and continuing into Phase 8 (2016-2022), a fifth pregnancy intention response option is offered. Those who were not sure whether they wanted to be pregnant could indicate that instead of choosing one of the other four responses. Because of the change in response options for pregnancy intention, comparisons cannot be made across survey phases (before 2012 and after 2012). **Table 13** reports pregnancy intention for Michigan mothers and **Table 15** summarizes the characteristics of those who reported an unintended pregnancy.

Pregnancy timing is calculated for all mothers who did not indicate their pregnancy was intended. Mothers who wanted to be pregnant in the future have pregnancies classified as "mistimed." Mothers who did not ever wish to get pregnant had pregnancies classified as "unwanted." **Table 14** contains these results.

Contraceptive behavior is distinct from pregnancy intention in that it asks mothers to report their actions at the time before their most recent pregnancy, not just their feelings about becoming pregnant. **Table 16** summarizes contraceptive behavior. Mothers are asked whether they were trying to conceive at the time they became pregnant. Characteristics of respondents who report that they were trying to conceive at the time of pregnancy are reported in **Table 17**.

Mothers who were not trying to conceive are asked whether they were using any contraceptive practices or engaged in any behavior to prevent pregnancy at the time they became pregnant. **Table 18** reports the characteristics of mothers who became pregnant despite acting to prevent pregnancy. These mothers also share the type of contraception they were using when they got pregnant in **Table 19**. Characteristics of respondents who report they were not trying to conceive but were also not engaged in any behaviors that would prevent pregnancy are reported in **Table 20**. These mothers also share their reasons for not using contraceptives in **Table 21**.

**Table 13. Distribution of pregnancy intention categories,  
MI PRAMS, 2021**

| <b>Intention</b> | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|------------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Intended         | 784                         | 63,024                        | 62.5                        | (59.4-65.6)                        |
| Unintended       | 312                         | 19,845                        | 19.7                        | (17.3-22.4)                        |
| Unsure           | 264                         | 17,889                        | 17.8                        | (15.4-20.4)                        |

**Table 14. Distribution of unintended pregnancy subtypes among women reporting either unsure  
or unintended pregnancy, MI PRAMS, 2021**

| <b>Unintended Pregnancy Subtype</b> | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|-------------------------------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Mistimed                            | 221                         | 14,781                        | 39.2                        | (34.1-44.5)                        |
| Unwanted                            | 91                          | 5,064                         | 13.4                        | (10.2-17.4)                        |
| Unsure                              | 264                         | 17,889                        | 47.4                        | (42.2-52.7)                        |

**Table 15. Prevalence of unintended (or unsure) pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 312              | 19,845             | 19.7             | (17.3-22.4)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 25               | 1,545              | 48.7             | (30.9-66.9)             |
| 20-29 Years                           | 195              | 13,056             | 26.0             | (22.1-30.3)             |
| 30+ Years                             | 92               | 5,245              | 11.1             | (8.6-14.2)              |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 108              | 11,550             | 17.5             | (14.3-21.2)             |
| Black, non-Hispanic                   | 168              | 5,698              | 32.9             | (28.5-37.5)             |
| Hispanic                              | 15               | 1,184              | 18.7             | (10.4-31.4)             |
| Asian/Pacific Islander, non-Hispanic  | 7                | 619                | 14.9**           | (6.7-29.9)              |
| Other, non-Hispanic                   | 14               | 794                | 12.9**           | (6.3-24.5)              |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 49               | 3,738              | 40.3             | (29.5-52.1)             |
| HS Grad/GED                           | 110              | 6,479              | 25.5             | (20.3-31.6)             |
| Some College                          | 95               | 5,639              | 20.1             | (15.8-25.3)             |
| College Degree+                       | 58               | 3,989              | 10.6             | (7.9-14.1)              |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 116              | 8,127              | 13.5             | (10.9-16.5)             |
| Medicaid/Public                       | 167              | 9,797              | 29.3             | (24.3-34.8)             |
| Uninsured                             | 16               | 1,246              | 28.6             | (16.1-45.6)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 96               | 7,583              | 12.5             | (9.9-15.6)              |
| Other                                 | 214              | 12,166             | 31.0             | (26.4-35.9)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 119              | 7,438              | 18.9             | (15.4-23.1)             |
| 1                                     | 83               | 5,813              | 17.6             | (13.5-22.6)             |
| 2+                                    | 109              | 6,525              | 23.1             | (18.3-28.8)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 70               | 3,241              | 27.2             | (20.2-35.5)             |
| \$16,001-\$24,000                     | 44               | 2,829              | 32.5             | (23.1-43.6)             |
| \$24,001-\$40,000                     | 57               | 3,737              | 26.3             | (19.6-34.3)             |
| \$40,001-\$60,000                     | 38               | 2,444              | 16.2             | (10.9-23.4)             |
| \$60,001+                             | 55               | 4,536              | 11.8             | (8.7-15.8)              |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 16. Distribution of contraceptive behaviors at the time of conception,  
MI PRAMS, 2021**

| <b>Contraceptive Practice Subtype</b>    | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Trying to conceive                       | 718                         | 58,762                        | 58.3                        | (55.1-61.5)                        |
| Avoiding pregnancy                       | 219                         | 14,623                        | 14.5                        | (12.4-16.9)                        |
| Neither trying nor avoiding<br>pregnancy | 424                         | 27,381                        | 27.2                        | (24.4-30.2)                        |

**Table 17. Prevalence of trying to conceive during the pre-pregnancy period by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 718              | 58,762             | 58.3             | (55.1-61.5)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 10               | 609                | 19.4**           | (8.0-40.2)              |
| 20-29 Years                           | 311              | 24,993             | 49.4             | (44.8-54.1)             |
| 30+ Years                             | 397              | 33,160             | 70.4             | (66.1-74.4)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 434              | 43,346             | 65.5             | (61.2-69.7)             |
| Black, non-Hispanic                   | 166              | 5,232              | 29.9             | (25.9-34.3)             |
| Hispanic                              | 35               | 3,270              | 51.8             | (38.4-65.1)             |
| Asian/Pacific Islander, non-Hispanic  | 34               | 2,943              | 74.8             | (58.1-86.4)             |
| Other, non-Hispanic                   | 45               | 3,483              | 56.4             | (42.6-69.2)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 35               | 2,468              | 26.1             | (17.4-37.3)             |
| HS Grad/GED                           | 144              | 11,345             | 45.2             | (38.6-52.0)             |
| Some College                          | 203              | 15,248             | 54.5             | (48.5-60.4)             |
| College Degree+                       | 333              | 29,367             | 77.7             | (73.0-81.8)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 502              | 43,290             | 71.5             | (67.6-75.1)             |
| Medicaid/Public                       | 177              | 12,008             | 36.0             | (30.7-41.7)             |
| Uninsured                             | 26               | 2,366              | 53.9             | (38.0-69.0)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 518              | 45,776             | 75.3             | (71.4-78.8)             |
| Other                                 | 197              | 12,731             | 32.4             | (27.7-37.6)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 315              | 24,015             | 60.6             | (55.8-65.3)             |
| 1                                     | 252              | 21,788             | 66.3             | (60.5-71.6)             |
| 2+                                    | 149              | 12,832             | 45.6             | (39.3-52.1)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 65               | 4,347              | 36.0             | (27.5-45.5)             |
| \$16,001-\$24,000                     | 55               | 3,526              | 40.5             | (30.5-51.4)             |
| \$24,001-\$40,000                     | 81               | 6,377              | 45.1             | (36.5-54.0)             |
| \$40,001-\$60,000                     | 101              | 8,959              | 59.4             | (50.6-67.6)             |
| \$60,001+                             | 346              | 30,437             | 78.9             | (74.1-83.0)             |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 18. Prevalence of becoming pregnant despite using any contraceptive practices by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 219              | 14,623             | 14.5             | (12.4-16.9)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 16               | 973                | 31.1             | (16.7-50.4)             |
| 20-29 Years                           | 126              | 8,376              | 16.6             | (13.5-20.2)             |
| 30+ Years                             | 77               | 5,274              | 11.2             | (8.5-14.6)              |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 77               | 7,949              | 12.0             | (9.4-15.2)              |
| Black, non-Hispanic                   | 111              | 3,968              | 22.7             | (18.9-27.0)             |
| Hispanic                              | 17               | 1,545              | 24.5             | (14.9-37.5)             |
| Asian/Pacific Islander, non-Hispanic  |                  |                    | *                |                         |
| Other, non-Hispanic                   | 8                | 529                | 8.6**            | (3.4-20.2)              |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 29               | 1,855              | 19.6             | (12.2-30.0)             |
| HS Grad/GED                           | 68               | 4,748              | 18.9             | (14.3-24.6)             |
| Some College                          | 74               | 4,379              | 15.7             | (11.8-20.5)             |
| College Degree+                       | 48               | 3,641              | 9.6              | (7.0-13.2)              |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 85               | 6,689              | 11.1             | (8.6-14.0)              |
| Medicaid/Public                       | 115              | 6,850              | 20.5             | (16.4-25.4)             |
| Uninsured                             | 11               | 656                | 14.9**           | (7.5-27.6)              |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 68               | 5,361              | 8.8              | (6.7-11.5)              |
| Other                                 | 151              | 9,262              | 23.6             | (19.5-28.3)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 93               | 5,998              | 15.1             | (12.0-19.0)             |
| 1                                     | 54               | 4,213              | 12.8             | (9.3-17.4)              |
| 2+                                    | 72               | 4,411              | 15.7             | (11.7-20.7)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 49               | 2,406              | 19.9             | (14.1-27.4)             |
| \$16,001-\$24,000                     | 22               | 1,569              | 18.0             | (11.0-28.2)             |
| \$24,001-\$40,000                     | 45               | 2,926              | 20.7             | (14.7-28.3)             |
| \$40,001-\$60,000                     | 29               | 2,057              | 13.6             | (8.5-21.1)              |
| \$60,001+                             | 38               | 3,152              | 8.2              | (5.7-11.6)              |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.



**Table 19. Prevalence of contraception methods used by women who became pregnant despite using contraceptive practices, MI PRAMS, 2021**

| <b>Method</b>                 | <b>Sample Frequency</b> | <b>Weighted Frequency</b> | <b>Weighted Percent</b> | <b>95% Confidence Interval</b> |
|-------------------------------|-------------------------|---------------------------|-------------------------|--------------------------------|
| <b>Reason (non-exclusive)</b> |                         |                           |                         |                                |
| Withdrawal                    | 98                      | 6,464                     | 42.7                    | (34.8-51.1)                    |
| Condoms                       | 74                      | 4,341                     | 28.7                    | (22.0-36.5)                    |
| Oral Contraceptives           | 50                      | 3,448                     | 22.8                    | (16.5-30.6)                    |
| Rhythm Method                 | 22                      | 1,923                     | 12.7                    | (8.0-19.7)                     |
| Shot Every 3 Months           | 13                      | 1,003                     | 6.6**                   | (3.2-13.1)                     |
| Intrauterine Device           | 10                      | 599                       | 4.0**                   | (2.0-7.7)                      |
| Contraceptive Implant         | 7                       | 527                       | 3.5**                   | (1.4-8.6)                      |
| Contraceptive Patch or Ring   | 9                       | 484                       | 3.2**                   | (1.4-7.3)                      |
| Other                         | 7                       | 373                       | 2.5**                   | (1.1-5.5)                      |

**\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.**

**Table 20. Prevalence of women who were not trying to conceive - but were not doing anything to prevent pregnancy - by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 424              | 27,381             | 27.2             | (24.4-30.2)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 30               | 1,550              | 49.5             | (31.5-67.7)             |
| 20-29 Years                           | 246              | 17,177             | 34.0             | (29.6-38.6)             |
| 30+ Years                             | 148              | 8,654              | 18.4             | (15.2-22.1)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 122              | 14,835             | 22.4             | (18.8-26.5)             |
| Black, non-Hispanic                   | 252              | 8,294              | 47.4             | (42.8-52.1)             |
| Hispanic                              | 16               | 1,493              | 23.7             | (13.9-37.4)             |
| Asian/Pacific Islander, non-Hispanic  |                  |                    | *                |                         |
| Other, non-Hispanic                   | 28               | 2,167              | 35.1             | (23.1-49.2)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 69               | 5,129              | 54.3             | (42.7-65.4)             |
| HS Grad/GED                           | 154              | 9,002              | 35.9             | (29.8-42.5)             |
| Some College                          | 135              | 8,340              | 29.8             | (24.7-35.5)             |
| College Degree+                       | 64               | 4,795              | 12.7             | (9.5-16.7)              |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Uninsured                             | 149              | 10,556             | 17.4             | (14.5-20.8)             |
| Medicaid/Public                       | 238              | 14,479             | 43.4             | (37.8-49.2)             |
| Private                               | 20               | 1,370              | 31.2             | (18.3-47.8)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 114              | 9,674              | 15.9             | (13.0-19.4)             |
| Other                                 | 305              | 17,266             | 44.0             | (38.9-49.2)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live births               | 160              | 9,583              | 24.2             | (20.3-28.6)             |
| 1                                     | 101              | 6,860              | 20.9             | (16.5-26.1)             |
| 2+                                    | 162              | 10,869             | 38.7             | (32.6-45.1)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 100              | 5,318              | 44.1             | (35.2-53.3)             |
| \$16,001-\$24,000                     | 74               | 3,603              | 41.4             | (31.6-51.9)             |
| \$24,001-\$40,000                     | 69               | 4,835              | 34.2             | (26.4-43.0)             |
| \$40,001-\$60,000                     | 50               | 4,072              | 27.0             | (20.0-35.4)             |
| \$60,001+                             | 57               | 4,988              | 12.9             | (9.6-17.1)              |

\*Data not shown due to small sample size and/or relative standard error > 50%.

**Table 21. Reasons women who were not trying to conceive - but were not doing anything to prevent pregnancy - did not use contraception, MI PRAMS, 2021**

| Reason                                     | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Reason (non-exclusive)</b>              |                  |                    |                  |                         |
| Didn't Mind Getting Pregnant               | 203              | 14,514             | 52.3             | (46.1-58.5)             |
| Thought Couldn't Get Pregnant at That Time | 105              | 6,608              | 23.7             | (18.9-29.3)             |
| Partner Didn't Want to Use Birth Control   | 57               | 3,692              | 13.3             | (9.6-18.1)              |
| Side Effects from Birth Control            | 49               | 2,694              | 9.7              | (6.7-13.7)              |
| Forgot to Use Birth Control                | 30               | 2,407              | 8.7              | (5.5-13.4)              |
| Thought Self/Partner Sterile               | 32               | 2,152              | 7.7              | (5.0-11.7)              |
| Problems Getting Birth Control             | 15               | 905                | 3.3**            | (1.5-6.9)               |
| Other Reason                               | 46               | 2,618              | 9.4              | (6.3-13.8)              |

**\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.**

**Table 22. Prevalence of using any postpartum contraceptive method by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 1,023            | 76,977             | 76.8             | (73.8-79.4)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 40               | 2,070              | 68.3**           | (47.4-83.8)             |
| 20-29 Years                           | 502              | 37,399             | 74.5             | (70.2-78.4)             |
| 30+ Years                             | 481              | 37,507             | 79.7             | (75.7-83.2)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 501              | 52,125             | 78.5             | (74.7-81.9)             |
| Black, non-Hispanic                   | 382              | 12,365             | 72.2             | (67.7-76.3)             |
| Hispanic                              | 48               | 4,624              | 74.5             | (60.5-84.8)             |
| Asian/Pacific Islander, non-Hispanic  | 33               | 2,977              | 73.7             | (56.6-85.7)             |
| Other, non-Hispanic                   | 54               | 4,299              | 74.1             | (60.4-84.3)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 93               | 6,135              | 67.1             | (55.0-77.2)             |
| HS Grad/GED                           | 261              | 17,648             | 69.0             | (62.4-75.0)             |
| Some College                          | 306              | 21,801             | 78.3             | (73.0-82.8)             |
| College Degree+                       | 359              | 30,981             | 83.1             | (78.9-86.6)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 560              | 47,852             | 79.7             | (76.2-82.8)             |
| Medicaid/Public                       | 396              | 24,315             | 73.1             | (67.5-78.1)             |
| Uninsured                             | 38               | 2,880              | 67.1             | (50.0-80.6)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 551              | 48,765             | 80.6             | (77.1-83.7)             |
| Other                                 | 465              | 27,537             | 70.4             | (65.3-75.0)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 402              | 29,108             | 74.5             | (70.0-78.5)             |
| 1                                     | 311              | 24,902             | 75.6             | (70.1-80.4)             |
| 2+                                    | 309              | 22,866             | 81.4             | (75.6-86.1)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 149              | 8,132              | 66.8             | (57.4-74.9)             |
| \$16,001-\$24,000                     | 106              | 6,096              | 70.8             | (60.4-79.4)             |
| \$24,001-\$40,000                     | 144              | 10,237             | 71.5             | (62.8-78.8)             |
| \$40,001-\$60,000                     | 148              | 12,839             | 85.1             | (78.2-90.1)             |
| \$60,001+                             | 358              | 32,204             | 83.6             | (79.4-87.1)             |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 23. Prevalence of postpartum contraceptive methods,  
MI PRAMS, 2021**

| <b>Method</b>                                      | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Pregnancy prevention method (non-exclusive)</b> |                             |                               |                             |                                    |
| Condoms  | 278                         | 22,414                        | 29.0                        | (25.7-32.5)                        |
| Oral Contraceptives                                | 231                         | 16,604                        | 21.5                        | (18.6-24.7)                        |
| Withdrawal   | 195                         | 15,561                        | 20.1                        | (17.3-23.3)                        |
| Abstinence   | 151                         | 10,593                        | 13.7                        | (11.3-16.4)                        |
| Intrauterine Device                                | 106                         | 8,271                         | 10.7                        | (8.6-13.3)                         |
| Tubal Ligation                                     | 94                          | 6,672                         | 8.6                         | (6.7-11.1)                         |
| Rhythm Method                                      | 53                          | 4,896                         | 6.3                         | (4.8-8.4)                          |
| Shot Every 3 Months                                | 87                          | 4,481                         | 5.8                         | (4.4-7.6)                          |
| Contraceptive Implant                              | 46                          | 3,415                         | 4.4                         | (3.1-6.3)                          |
| Partner Had Vasectomy                              | 34                          | 3,271                         | 4.2                         | (2.9-6.1)                          |
| Contraceptive Patch or Vaginal Ring                | 25                          | 1,530                         | 2.0                         | (1.2-3.3)                          |
| Other Method                                       | 20                          | 1,349                         | 1.7                         | (1.0-3.0)                          |

**Table 24. Prevalence of no postpartum contraceptive methods by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 328              | 23,313             | 23.2             | (20.6-26.2)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 15               | 961                | 31.7**           | (16.2-52.6)             |
| 20-29 Years                           | 174              | 12,790             | 25.5             | (21.6-29.8)             |
| 30+ Years                             | 139              | 9,562              | 20.3             | (16.8-24.3)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 136              | 14,270             | 21.5             | (18.1-25.3)             |
| Black, non-Hispanic                   | 138              | 4,760              | 27.8             | (23.7-32.3)             |
| Hispanic                              | 19               | 1,585              | 25.5             | (15.2-39.5)             |
| Asian/Pacific Islander, non-Hispanic  | 11               | 1,064              | 26.3             | (14.3-43.4)             |
| Other, non-Hispanic                   | 23               | 1,502              | 25.9             | (15.7-39.6)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 38               | 3,012              | 32.9             | (22.8-45.0)             |
| HS Grad/GED                           | 108              | 7,916              | 31.0             | (25.0-37.6)             |
| Some College                          | 102              | 6,050              | 21.7             | (17.2-27.0)             |
| College Degree+                       | 79               | 6,296              | 16.9             | (13.4-21.1)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 166              | 12,172             | 20.3             | (17.2-23.8)             |
| Medicaid/Public                       | 131              | 8,952              | 26.9             | (21.9-32.5)             |
| Uninsured                             | 18               | 1,412              | 32.9             | (19.4-50.0)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 145              | 11,703             | 19.4             | (16.3-22.9)             |
| Other                                 | 182              | 11,589             | 29.6             | (25.0-34.7)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 160              | 9,967              | 25.5             | (21.5-30.0)             |
| 1                                     | 95               | 8,021              | 24.4             | (19.6-29.9)             |
| 2+                                    | 71               | 5,229              | 18.6             | (13.9-24.4)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 67               | 4,050              | 33.2             | (25.1-42.6)             |
| \$16,001-\$24,000                     | 45               | 2,516              | 29.2             | (20.6-39.6)             |
| \$24,001-\$40,000                     | 51               | 4,083              | 28.5             | (21.2-37.2)             |
| \$40,001-\$60,000                     | 32               | 2,249              | 14.9             | (9.9-21.8)              |
| \$60,001+                             | 82               | 6,315              | 16.4             | (12.9-20.6)             |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 25. Reasons for not using any postpartum contraception,  
MI PRAMS, 2021**

| <b>Reason</b>                        | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--------------------------------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Reason (non-exclusive)</b>        |                             |                               |                             |                                    |
| Doesn't Want to Use Birth Control    | 122                         | 8,869                         | 37.4                        | (31.1-44.2)                        |
| Side Effects from Birth Control      | 91                          | 6,477                         | 27.5                        | (21.8-33.9)                        |
| Not Having Sex                       | 94                          | 6,015                         | 25.4                        | (20.0-31.6)                        |
| Wants to Get Pregnant                | 47                          | 3,351                         | 14.1                        | (10.2-19.3)                        |
| Partner Doesn't Want to Use Anything | 27                          | 1,512                         | 6.4                         | (4.0-10.1)                         |
| Pregnant now                         | 12                          | 763                           | 3.2**                       | (1.5-7.1)                          |
| Problems Paying for Birth Control    |                             |                               | *                           |                                    |
| Mother Had Tubes Tied                |                             |                               | *                           |                                    |
| Other Reason                         | 69                          | 5,465                         | 23.1                        | (17.7-29.5)                        |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 26. Trimester of entry into prenatal care,  
MI PRAMS, 2021**

| Trimester of entry | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--------------------|---------------------|-----------------------|---------------------|----------------------------|
| 1st Trimester      | 1,162               | 88,499                | 89.5                | (87.4-91.4)                |
| 2nd Trimester      | 141                 | 8,680                 | 8.8                 | (7.1-10.8)                 |
| 3rd Trimester      | 16                  | 827                   | 0.8**               | (0.4-1.6)                  |
| No prenatal care   | 13                  | 840                   | 0.8**               | (0.4-1.8)                  |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 27. Source of payments for prenatal care,  
MI PRAMS, 2021**

| Source of prenatal care payment                | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Source of payment (non-exclusive)</b>       |                     |                       |                     |                            |
| Did not have prenatal care                     | 30                  | 2,065                 | 2.0                 | (1.3-3.2)                  |
| Private - from work                            | 616                 | 51,574                | 51.9                | (48.6-55.2)                |
| Medicaid                                       | 658                 | 42,655                | 42.9                | (39.7-46.2)                |
| Private - from parent                          | 66                  | 5,493                 | 5.5                 | (4.2-7.3)                  |
| Private - from MI Health Insurance Marketplace | 36                  | 2,355                 | 2.4                 | (1.6-3.6)                  |
| Other government                               | 9                   | 671                   | 0.7**               | (0.3-1.5)                  |
| Private - TRICARE/other military               | 11                  | 725                   | 0.7**               | (0.3-1.6)                  |
| Indian Health Services or other tribal         |                     |                       | *                   |                            |
| Uninsured during pregnancy                     |                     |                       | *                   |                            |
| Other  | 42                  | 2,889                 | 2.9                 | (2.0-4.2)                  |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.



**Table 28. Prevalence of first trimester entry into prenatal care by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 1,162            | 88,499             | 89.5             | (87.4-91.4)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 37               | 1,934              | 66.6             | (45.7-82.5)             |
| 20-29 Years                           | 567              | 43,490             | 88.0             | (84.7-90.7)             |
| 30+ Years                             | 558              | 43,075             | 92.6             | (89.8-94.6)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 589              | 60,253             | 92.2             | (89.3-94.4)             |
| Black, non-Hispanic                   | 403              | 13,239             | 78.8             | (74.6-82.5)             |
| Hispanic                              | 57               | 5,417              | 90.9**           | (79.4-96.3)             |
| Asian/Pacific Islander, non-Hispanic  | 37               | 3,653              | 90.4**           | (78.1-96.1)             |
| Other, non-Hispanic                   | 71               | 5,244              | 87.6**           | (73.9-94.7)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 90               | 6,696              | 73.7             | (62.3-82.7)             |
| HS Grad/GED                           | 291              | 20,124             | 82.7             | (76.9-87.3)             |
| Some College                          | 363              | 25,765             | 92.3             | (89.1-94.7)             |
| College Degree+                       | 414              | 35,479             | 95.7             | (93.1-97.3)             |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 676              | 56,635             | 94.8             | (92.7-96.4)             |
| Medicaid/Public                       | 412              | 26,621             | 82.6             | (77.9-86.5)             |
| Uninsured                             | 42               | 3,109              | 72.1             | (54.2-84.9)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 638              | 55,698             | 92.4             | (89.7-94.4)             |
| Other                                 | 517              | 32,174             | 84.9             | (80.9-88.2)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 489              | 35,214             | 91.0             | (87.8-93.4)             |
| 1                                     | 351              | 28,639             | 88.9             | (84.3-92.3)             |
| 2+                                    | 319              | 24,449             | 88.2             | (83.7-91.5)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 143              | 8,149              | 73.1             | (63.8-80.7)             |
| \$16,001-\$24,000                     | 126              | 7,316              | 85.5             | (76.4-91.5)             |
| \$24,001-\$40,000                     | 171              | 12,759             | 90.4             | (84.4-94.3)             |
| \$40,001-\$60,000                     | 163              | 13,733             | 92.3**           | (86.3-95.8)             |
| \$60,001+                             | 414              | 36,671             | 96.4             | (93.9-97.9)             |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 29. Prevalence of getting prenatal care as early as wanted,  
MI PRAMS, 2021**

| Got care as early as wanted | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|-----------------------------|------------------|--------------------|------------------|-------------------------|
| No                          | 193              | 13,094             | 13.0             | (11.0-15.4)             |
| Yes                         | 1,161            | 87,317             | 87.0             | (84.6-89.0)             |

**Table 30. Prevalence of getting prenatal care as early as wanted by first trimester entry into prenatal care,  
MI PRAMS, 2021**

| Trimester of Entry to Prenatal Care | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|-------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>First Trimester</b>              |                  |                    |                  |                         |
| Yes, started PNC as early as wanted | 1,036            | 79,759             | 90.3             | (88.1-92.2)             |
| No, wanted to start PNC earlier     | 123              | 8,540              | 9.7              | (7.8-11.9)              |
| <b>After First Trimester</b>        |                  |                    |                  |                         |
| Yes, started PNC as early as wanted | 90               | 5,086              | 54.1             | (43.5-64.2)             |
| No, wanted to start PNC earlier     | 66               | 4,321              | 45.9             | (35.8-56.5)             |

**Table 31. Barriers to starting prenatal care as early as wanted among women who began prenatal care during the first trimester, MI PRAMS, 2021**

|   | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---|------------------|--------------------|------------------|-------------------------|
| <b>Barrier (non-exclusive)</b>                          |                  |                    |                  |                         |
| Could not get appt when I wanted one                    | 69               | 5,181              | 65.4             | (54.5-74.9)             |
| Doctor/health plan would not start as early as I wanted | 44               | 3,625              | 43.9             | (33.3-55.2)             |
| Did not know pregnant                                   | 25               | 1,500              | 18.8             | (11.7-28.8)             |
| No time off from work or school                         | 7                | 576                | 7.3**            | (3.1-16.1)              |
| No childcare  | 7                | 474                | 6.0**            | (2.4-14.0)              |
| Too many other things                                   | 9                | 420                | 5.3**            | (2.1-12.5)              |
| Not enough money to pay                                 |                  |                    | *                |                         |
| No Medicaid card  |                  |                    | *                |                         |
| Wanted to keep pregnancy secret                         |                  |                    | *                |                         |
| No transportation                                       |                  |                    | *                |                         |
| Did not want prenatal care                              |                  |                    | *                |                         |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 32. Barriers to starting prenatal care as early as wanted among women who began prenatal care after the first trimester, MI PRAMS, 2021**

|   | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---|------------------|--------------------|------------------|-------------------------|
| <b>Barrier (non-exclusive)</b>                          |                  |                    |                  |                         |
| Could not get appt when I wanted one                    | 37               | 2,403              | 50.3             | (35.3-65.2)             |
| Too many other things                                   | 23               | 1,804              | 36.9             | (23.2-53.0)             |
| Did not know pregnant                                   | 30               | 1,668              | 33.8             | (21.2-49.2)             |
| Doctor/health plan would not start as early as I wanted | 14               | 1,218              | 24.9             | (13.8-40.6)             |
| No transportation                                       | 10               | 897                | 18.2**           | (8.4-34.9)              |
| Not enough money or insurance to pay                    | 10               | 790                | 16.2**           | (7.4-32.0)              |
| Could not get childcare                                 | 9                | 780                | 15.8**           | (7.2-31.4)              |
| Wanted to keep pregnancy secret                         | 14               | 735                | 14.8**           | (7.3-27.7)              |
| No time off from work or school                         | 7                | 535                | 11.1**           | (4.8-23.6)              |
| No Medicaid card  |                  |                    | *                |                         |
| Did not want prenatal care                              |                  |                    | *                |                         |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 33. Prevalence of topics discussed by health care provider during prenatal care visits, MI PRAMS, 2021**

|  | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Topic (non-exclusive)</b>                 |                             |                               |                             |                                    |
| Using Prescription Medicine During Pregnancy | 1,284                       | 96,674                        | 96.8                        | (95.6-97.7)                        |
| Smoking During Pregnancy                     | 1,288                       | 96,403                        | 96.5                        | (95.2-97.4)                        |
| Using Alcohol During Pregnancy               | 1,272                       | 95,242                        | 95.3                        | (93.8-96.4)                        |
| Breastfeeding Plans                          | 1,225                       | 90,037                        | 90.6                        | (88.5-92.3)                        |
| Feeling depressed                            | 1,162                       | 85,559                        | 86.4                        | (84.0-88.4)                        |
| Using Illegal Drug During Pregnancy          | 1,151                       | 84,793                        | 85.3                        | (82.9-87.4)                        |
| Post-partum contraception plans              | 1,133                       | 82,982                        | 83.2                        | (80.7-85.5)                        |
| Experiencing emotional or physical abuse     | 1,114                       | 82,233                        | 83.0                        | (80.4-85.3)                        |
| Offered HIV testing                          | 876                         | 62,904                        | 64.4                        | (61.2-67.5)                        |
| Knowledge of appropriate weight gain         | 686                         | 48,042                        | 48.7                        | (45.4-52.0)                        |

**Table 34. Prevalence of Pregnancy Complications, MI PRAMS, 2021**

| <b>Pregnancy Complications</b>                             | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95%<br/>Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|--|
| Depression   | 271                         | 19,439                        | 19.3                        | (16.8-22.0)                            |
| Severe nausea, vomiting, dehydration                       | 281                         | 18,683                        | 18.6                        | (16.2-21.3)                            |
| High Blood Pressure  | 260                         | 15,428                        | 15.3                        | (13.2-17.7)                            |
| Gestational Diabetes<br>(excluding Pre-Pregnancy Diabetes) | 149                         | 11,872                        | 12.0                        | (9.9-14.3)                             |
| Kidney/Bladder Infection                                   | 160                         | 11,365                        | 11.3                        | (9.4-13.6)                             |

**Table 35. Prevalence of smoking during the 3 months before pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 209              | 16,608             | 16.4             | (14.0-19.1)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             |                  |                    | *                |                         |
| 20-29 Years                           | 116              | 10,195             | 20.1             | (16.4-24.4)             |
| 30+ Years                             | 90               | 6,101              | 12.8             | (10.0-16.4)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 111              | 12,361             | 18.6             | (15.3-22.4)             |
| Black, non-Hispanic                   | 75               | 2,439              | 13.9             | (11.0-17.5)             |
| Hispanic                              | 8                | 705                | 11.1**           | (4.8-23.5)              |
| Asian/Pacific Islander, non-Hispanic  |                  |                    | 0.0              |                         |
| Other, non-Hispanic                   | 13               | 806                | 13.1**           | (6.7-23.9)              |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 39               | 3,244              | 34.0             | (23.9-46.0)             |
| HS Grad/GED                           | 76               | 5,900              | 22.9             | (17.7-29.2)             |
| Some College                          | 74               | 5,366              | 19.1             | (14.6-24.7)             |
| College Degree+                       | 18               | 1,802              | 4.8              | (2.9-7.8)               |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 54               | 5,052              | 8.4              | (6.2-11.1)              |
| Medicaid/Public                       | 137              | 10,476             | 31.0             | (25.7-36.8)             |
| Uninsured                             | 11               | 799                | 18.2**           | (9.0-33.4)              |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 57               | 5,998              | 9.8              | (7.4-12.8)              |
| Other                                 | 148              | 10,237             | 25.9             | (21.4-30.9)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 65               | 4,538              | 11.4             | (8.6-15.0)              |
| 1                                     | 54               | 5,278              | 16.0             | (11.8-21.3)             |
| 2+                                    | 90               | 6,792              | 23.8             | (18.6-29.9)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 60               | 4,330              | 35.4             | (26.9-45.0)             |
| \$16,001-\$24,000                     | 29               | 1,845              | 21.2             | (13.5-31.6)             |
| \$24,001-\$40,000                     | 40               | 2,896              | 20.2             | (13.8-28.5)             |
| \$40,001-\$60,000                     | 32               | 2,999              | 19.9             | (13.7-27.9)             |
| \$60,001+                             | 21               | 2,246              | 5.8              | (3.6-9.2)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 36. Prevalence of smoking during the last 3 months of pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                       | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                         | 109              | 8606               | 8.5              | (6.7-10.7)              |
| <b>Maternal Age</b>                  |                  |                    |                  |                         |
| <20 Years                            |                  |                    | *                |                         |
| 20-29 Years                          | 55               | 4855               | 9.6              | (7.0-13.0)              |
| 30+ Years                            | 53               | 3555               | 7.5              | (5.3-10.5)              |
| <b>Race/Ethnicity</b>                |                  |                    |                  |                         |
| White, non-Hispanic                  | 61               | 6522               | 9.8              | (7.3-12.9)              |
| Black, non-Hispanic                  | 39               | 1253               | 7.2              | (5.1-9.9)               |
| Hispanic                             |                  |                    | *                |                         |
| Asian/Pacific Islander, non-Hispanic |                  |                    | 0.0              |                         |
| Other, non-Hispanic                  |                  |                    | *                |                         |
| <b>Education</b>                     |                  |                    |                  |                         |
| <High School                         | 24               | 2084               | 21.9             | (13.5-33.5)             |
| HS Grad/GED                          | 40               | 3119               | 12.1             | (8.3-17.4)              |
| Some College                         | 38               | 2635               | 9.4              | (6.3-13.9)              |
| College Degree+                      | 6                | 571                | 1.5**            | (0.6-3.9)               |
| <b>Pregnancy Insurance Status</b>    |                  |                    |                  |                         |
| Medicaid/Public                      | 20               | 1658               | 2.8              | (1.7-4.7)               |
| Private                              | 83               | 6681               | 17.9             | (13.8-22.8)             |
| <b>Marital Status</b>                |                  |                    |                  |                         |
| Married                              | 23               | 2642               | 4.3              | (2.8-6.6)               |
| Other                                | 84               | 5729               | 14.5             | (11.0-18.9)             |
| <b>Parity</b>                        |                  |                    |                  |                         |
| No previous live birth               | 30               | 2067               | 5.2              | (3.4-8.0)               |
| 1                                    | 24               | 2681               | 8.1              | (5.1-12.7)              |
| 2+                                   | 55               | 3857               | 13.5             | (9.6-18.6)              |
| <b>Last Year's Household Income</b>  |                  |                    |                  |                         |
| <\$16,000                            | 41               | 3335               | 27.3             | (19.2-37.1)             |
| \$16,001-\$24,000                    | 15               | 778                | 8.9              | (4.5-16.9)              |
| \$24,001-\$40,000                    | 21               | 1478               | 10.3             | (5.9-17.4)              |
| \$40,001-\$60,000                    | 17               | 1463               | 9.7              | (5.6-16.2)              |
| \$60,001+                            |                  |                    | *                |                         |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 37. Prevalence of smoking after pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 140              | 10,168             | 10.0             | (8.1-12.3)              |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              |                  |                    | *                |                         |
| 20-29 Years                            | 76               | 6,044              | 11.9             | (9.1-15.5)              |
| 30+ Years                              | 63               | 3,928              | 8.3              | (6.0-11.3)              |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 64               | 7,024              | 10.5             | (8.0-13.8)              |
| Black, non-Hispanic                    | 60               | 1,972              | 11.3             | (8.6-14.5)              |
| Hispanic                               |                  |                    | *                |                         |
| Asian/Pacific Islander, non-Hispanic   |                  |                    | *                |                         |
| Other, non-Hispanic                    | 9                | 520                | 8.4**            | (3.7-18.2)              |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 27               | 2,051              | 21.5             | (13.4-32.7)             |
| HS Grad/GED                            | 53               | 3,689              | 14.3             | (10.2-19.7)             |
| Some College                           | 50               | 3,329              | 11.9             | (8.3-16.6)              |
| College Degree+                        | 9                | 904                | 2.4**            | (1.2-4.9)               |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 24               | 2,078              | 3.6              | (2.2-5.8)               |
| Medicaid/Public                        | 109              | 7,799              | 19.5             | (15.5-24.2)             |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 31               | 3,079              | 5.0              | (3.4-7.4)               |
| Other                                  | 107              | 6,854              | 17.3             | (13.6-21.8)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 35               | 2,403              | 6.1              | (4.1-9.0)               |
| 1                                      | 33               | 3,196              | 9.7              | (6.4-14.4)              |
| 2+                                     | 72               | 4,569              | 16.0             | (11.9-21.2)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 47               | 3,424              | 28.0             | (20.1-37.6)             |
| \$16,001-\$24,000                      | 17               | 781                | 9.0**            | (4.6-16.7)              |
| \$24,001-\$40,000                      | 27               | 1,874              | 13.1             | (8.0-20.5)              |
| \$40,001-\$60,000                      | 23               | 1,823              | 12.1             | (7.6-18.8)              |
| \$60,001+                              | 7                | 760                | 2.0**            | (0.9-4.4)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 38. Prevalence of electronic cigarette usage during the 3 months before pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 89               | 7,131              | 7.1              | (5.5-9.0)               |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 9                | 574                | 18.1**           | (7.8-36.6)              |
| 20-29 Years                           | 60               | 5,033              | 10.0             | (7.4-13.2)              |
| 30+ Years                             | 20               | 1,524              | 3.2              | (1.9-5.4)               |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 50               | 4,980              | 7.5              | (5.5-10.2)              |
| Black, non-Hispanic                   | 22               | 809                | 4.7              | (3.0-7.1)               |
| Hispanic                              | 6                | 642                | 10.1**           | (4.3-21.8)              |
| Asian/Pacific Islander, non-Hispanic  |                  |                    | *                |                         |
| Other, non-Hispanic                   | 10               | 662                | 10.8**           | (5.0-21.7)              |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 14               | 1,257              | 13.2**           | (6.9-23.7)              |
| HS Grad/GED                           | 33               | 2,317              | 9.0              | (5.9-13.5)              |
| Some College                          | 34               | 2,760              | 10.0             | (6.8-14.4)              |
| College Degree+                       | 8                | 797                | 2.1**            | (1.0-4.4)               |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 29               | 2,678              | 4.5              | (2.9-6.7)               |
| Medicaid/Public                       | 53               | 4,050              | 12.1             | (8.8-16.4)              |
| Uninsured                             | 6                | 365                | 8.3**            | (3.2-20.1)              |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 24               | 2,588              | 4.3              | (2.7-6.5)               |
| Other                                 | 64               | 4,523              | 11.5             | (8.6-15.3)              |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 47               | 3,756              | 9.5              | (6.9-13.0)              |
| 1                                     | 25               | 1,906              | 5.8              | (3.5-9.4)               |
| 2+                                    | 17               | 1,469              | 5.2              | (2.9-9.2)               |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 18               | 1,039              | 8.6**            | (4.7-15.2)              |
| \$16,001-\$24,000                     | 18               | 1,197              | 13.8             | (7.9-23.1)              |
| \$24,001-\$40,000                     | 23               | 1,525              | 10.6             | (6.6-16.7)              |
| \$40,001-\$60,000                     | 6                | 699                | 4.6**            | (2.0-10.5)              |
| \$60,001+                             | 13               | 1,596              | 4.1              | (2.3-7.2)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.



**Table 39. Prevalence of electronic cigarette usage during the last 3 months of pregnancy  
MI PRAMS, 2021**

| <b>E-cigarette Usage</b> | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--------------------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| No                       | 1,326                       | 97,919                        | 97.3                        | (95.9-98.2)                        |
| Yes                      | 33                          | 2,708                         | 2.7                         | (1.8-4.1)                          |

**Table 40. Prevalence of hookah usage in 2 years before survey completion by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 87               | 4,676              | 4.7              | (3.7-6.0)               |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             |                  |                    | *                |                         |
| 20-29 Years                           | 56               | 3,193              | 6.4              | (4.7-8.7)               |
| 30+ Years                             | 27               | 1,246              | 2.7              | (1.8-4.0)               |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 15               | 1,256              | 1.9              | (1.1-3.4)               |
| Black, non-Hispanic                   | 59               | 2,426              | 14.0             | (10.9-17.8)             |
| Hispanic                              |                  |                    | *                |                         |
| Asian/Pacific Islander, non-Hispanic  |                  |                    | *                |                         |
| Other, non-Hispanic                   | 8                | 595                | 10.3**           | (4.7-21.3)              |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 8                | 388                | 4.1              | (2.0-8.4)               |
| HS Grad/GED                           | 26               | 1,407              | 5.5              | (3.5-8.7)               |
| Some College                          | 32               | 1,515              | 5.5              | (3.6-8.3)               |
| College Degree+                       | 21               | 1,365              | 3.7              | (2.2-6.0)               |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 41               | 2,230              | 3.7              | (2.6-5.3)               |
| Medicaid/Public                       | 37               | 2,027              | 6.1              | (4.2-9.0)               |
| Uninsured                             | 6                | 268                | 6.3**            | (2.7-13.9)              |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 20               | 1,392              | 2.3              | (1.4-3.7)               |
| Other                                 | 66               | 3,257              | 8.4              | (6.3-11.1)              |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 46               | 2,369              | 6.1              | (4.3-8.5)               |
| 1                                     | 24               | 1,532              | 4.8              | (3.0-7.5)               |
| 2+                                    | 16               | 705                | 2.5              | (1.4-4.3)               |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 22               | 885                | 7.4              | (4.5-11.8)              |
| \$16,001-\$24,000                     | 12               | 724                | 8.5**            | (4.6-15.4)              |
| \$24,001-\$40,000                     | 14               | 739                | 5.3              | (3.0-9.3)               |
| \$40,001-\$60,000                     | 10               | 441                | 2.9**            | (1.5-5.8)               |
| \$60,001+                             | 18               | 1,137              | 3.0              | (1.7-5.1)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 41. Prevalence of marijuana or hash usage in 12 months before pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 349              | 24,260             | 24.3             | (21.6-27.3)             |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             | 22               | 1,307              | 41.8             | (25.1-60.5)             |
| 20-29 Years                           | 206              | 13,926             | 28.1             | (24.1-32.6)             |
| 30+ Years                             | 121              | 9,027              | 19.2             | (15.6-23.3)             |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 144              | 15,547             | 23.4             | (19.8-27.4)             |
| Black, non-Hispanic                   | 158              | 5,000              | 29.8             | (25.7-34.3)             |
| Hispanic                              | 23               | 2,286              | 36.0             | (24.2-49.8)             |
| Asian/Pacific Islander, non-Hispanic  |                  |                    | 0.0              |                         |
| Other, non-Hispanic                   | 22               | 1,099              | 19.5             | (11.4-31.5)             |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 46               | 3,255              | 35.0             | (24.7-47.0)             |
| HS Grad/GED                           | 128              | 8,780              | 34.9             | (28.8-41.7)             |
| Some College                          | 118              | 7,867              | 28.4             | (23.2-34.2)             |
| College Degree+                       | 55               | 4,061              | 10.9             | (8.1-14.6)              |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Uninsured                             | 124              | 9,471              | 15.9             | (13.1-19.1)             |
| Medicaid/Public                       | 198              | 12,925             | 39.1             | (33.5-44.9)             |
| Private                               | 18               | 1,594              | 37.5             | (22.8-54.8)             |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 95               | 8,184              | 13.6             | (10.9-16.8)             |
| Other                                 | 249              | 15,756             | 40.5             | (35.4-45.7)             |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 158              | 10,589             | 27.1             | (22.9-31.7)             |
| 1                                     | 92               | 7,157              | 21.9             | (17.3-27.5)             |
| 2+                                    | 99               | 6,514              | 23.4             | (18.3-29.4)             |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 92               | 5,487              | 45.1             | (36.1-54.4)             |
| \$16,001-\$24,000                     | 59               | 3,433              | 39.5             | (29.7-50.2)             |
| \$24,001-\$40,000                     | 57               | 3,993              | 28.0             | (20.9-36.3)             |
| \$40,001-\$60,000                     | 36               | 2,836              | 18.9             | (13.0-26.7)             |
| \$60,001+                             | 67               | 5,746              | 15.0             | (11.5-19.3)             |

**Table 42. Prevalence of marijuana or hash usage during pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                       | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                         | 134              | 9,442              | 9.5              | (7.7-11.8)              |
| <b>Maternal Age</b>                  |                  |                    |                  |                         |
| <20 Years                            | 8                | 689                | 22.0**           | (9.5-43.1)              |
| 20-29 Years                          | 83               | 5,901              | 12.0             | (9.2-15.6)              |
| 30+ Years                            | 43               | 2,853              | 6.1              | (4.0-9.1)               |
| <b>Race/Ethnicity</b>                |                  |                    |                  |                         |
| White, non-Hispanic                  | 56               | 6,572              | 10.0             | (7.5-13.2)              |
| Black, non-Hispanic                  | 63               | 1,977              | 11.9             | (9.1-15.3)              |
| Hispanic                             | 6                | 434                | 6.9**            | (2.8-16.1)              |
| Asian/Pacific Islander, non-Hispanic |                  |                    | 0.0              |                         |
| Other, non-Hispanic                  | 8                | 263                | 4.6**            | (1.9-10.9)              |
| <b>Education</b>                     |                  |                    |                  |                         |
| <High School                         | 24               | 1,977              | 21.3             | (13.1-32.7)             |
| HS Grad/GED                          | 62               | 4,184              | 16.9             | (12.3-22.8)             |
| Some College                         | 43               | 3,024              | 10.9             | (7.5-15.5)              |
| College Degree+                      |                  |                    | *                |                         |
| <b>Pregnancy Insurance Status</b>    |                  |                    |                  |                         |
| Medicaid/Public                      | 25               | 1,650              | 2.9              | (1.8-4.6)               |
| Private                              | 100              | 7,096              | 19.4             | (15.2-24.5)             |
| <b>Marital Status</b>                |                  |                    |                  |                         |
| Married                              | 23               | 1,881              | 3.1              | (1.9-5.1)               |
| Other                                | 110              | 7,541              | 19.5             | (15.4-24.2)             |
| <b>Parity</b>                        |                  |                    |                  |                         |
| No previous live birth               | 47               | 2,904              | 7.5              | (5.3-10.5)              |
| 1                                    | 39               | 3,512              | 10.8             | (7.4-15.6)              |
| 2+                                   | 48               | 3,027              | 11.0             | (7.4-15.9)              |
| <b>Last Year's Household Income</b>  |                  |                    |                  |                         |
| <\$16,000                            | 54               | 4,082              | 33.8             | (25.2-43.7)             |
| \$16,001-\$24,000                    | 22               | 1,130              | 13.0             | (7.2-22.2)              |
| \$24,001-\$40,000                    | 23               | 1,508              | 10.7             | (6.6-16.9)              |
| \$40,001-\$60,000                    | 8                | 735                | 4.9**            | (2.2-10.5)              |
| \$60,001+                            | 10               | 1,038              | 2.7**            | (1.3-5.5)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 43. Prevalence of marijuana or hash usage after pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 204              | 13,997             | 14.0             | (11.8-16.6)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              | 21               | 1,280              | 40.9             | (24.1-60.1)             |
| 20-29 Years                            | 118              | 8,437              | 17.0             | (13.6-21.0)             |
| 30+ Years                              | 65               | 4,280              | 9.1              | (6.6-12.4)              |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 80               | 8,983              | 13.5             | (10.7-17.1)             |
| Black, non-Hispanic                    | 98               | 2,963              | 17.6             | (14.3-21.4)             |
| Hispanic                               | 12               | 1,280              | 20.2             | (11.2-33.5)             |
| Asian/Pacific Islander, non-Hispanic   |                  |                    | 0.0              |                         |
| Other, non-Hispanic                    | 13               | 575                | 10.1**           | (4.7-20.2)              |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 35               | 2,806              | 30.2             | (20.3-42.4)             |
| HS Grad/GED                            | 84               | 5,706              | 22.7             | (17.4-28.9)             |
| Some College                           | 61               | 3,901              | 14.0             | (10.3-18.9)             |
| College Degree+                        | 23               | 1,388              | 3.7              | (2.3-6.1)               |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 48               | 3,423              | 6.0              | (4.3-8.4)               |
| Medicaid/Public                        | 151              | 10,216             | 26.0             | (21.5-31.1)             |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 45               | 3,626              | 6.0              | (4.3-8.4)               |
| Other                                  | 157              | 10,154             | 26.0             | (21.5-31.1)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 82               | 5,088              | 13.0             | (10.0-16.7)             |
| 1                                      | 54               | 4,586              | 14.1             | (10.1-19.2)             |
| 2+                                     | 68               | 4,323              | 15.5             | (11.3-20.9)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 58               | 3,885              | 32.0             | (23.6-41.7)             |
| \$16,001-\$24,000                      | 46               | 2,130              | 24.4             | (16.9-34.1)             |
| \$24,001-\$40,000                      | 30               | 2,021              | 14.1             | (9.2-21.1)              |
| \$40,001-\$60,000                      | 16               | 1,385              | 9.2              | (5.2-15.6)              |
| \$60,001+                              | 26               | 2,257              | 5.9              | (3.7-9.3)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 44. Prevalence of opioid pain reliever usage in 12 months before pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                        | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                          | 42               | 2,692              | 2.7              | (1.8-4.0)               |
| <b>Maternal Age</b>                   |                  |                    |                  |                         |
| <20 Years                             |                  |                    | *                |                         |
| 20-29 Years                           | 21               | 1,180              | 2.4              | (1.3-4.2)               |
| 30+ Years                             | 18               | 1,444              | 3.1              | (1.8-5.3)               |
| <b>Race/Ethnicity</b>                 |                  |                    |                  |                         |
| White, non-Hispanic                   | 21               | 1,937              | 2.9              | (1.8-4.8)               |
| Black, non-Hispanic                   | 16               | 450                | 2.7              | (1.6-4.4)               |
| Hispanic                              |                  |                    | *                |                         |
| Asian/Pacific Islander, non-Hispanic  |                  |                    | *                |                         |
| Other, non-Hispanic                   |                  |                    | *                |                         |
| <b>Education</b>                      |                  |                    |                  |                         |
| <High School                          | 7                | 206                | 2.2**            | (1.0-4.9)               |
| HS Grad/GED                           | 14               | 904                | 3.6**            | (1.7-7.2)               |
| Some College                          | 11               | 732                | 2.6**            | (1.3-5.4)               |
| College Degree+                       | 10               | 850                | 2.3**            | (1.1-4.5)               |
| <b>Pre-Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                               | 20               | 1,529              | 2.6              | (1.5-4.3)               |
| Medicaid/Public                       | 20               | 1,037              | 3.1**            | (1.7-5.6)               |
| Uninsured                             |                  |                    | *                |                         |
| <b>Marital Status</b>                 |                  |                    |                  |                         |
| Married                               | 13               | 1,116              | 1.9**            | (1.0-3.4)               |
| Other                                 | 28               | 1,369              | 3.5              | (2.1-5.7)               |
| <b>Parity</b>                         |                  |                    |                  |                         |
| No previous live birth                | 22               | 1,340              | 3.4              | (2.0-5.7)               |
| 1                                     | 11               | 542                | 1.7**            | (0.8-3.5)               |
| 2+                                    | 9                | 811                | 2.9**            | (1.3-6.5)               |
| <b>Last Year's Household Income</b>   |                  |                    |                  |                         |
| <\$16,000                             | 9                | 246                | 2.0**            | (1.0-4.0)               |
| \$16,001-\$24,000                     | 8                | 441                | 5.1**            | (2.2-11.2)              |
| \$24,001-\$40,000                     |                  |                    | *                |                         |
| \$40,001-\$60,000                     | 6                | 517                | 3.4**            | (1.4-8.2)               |
| \$60,001+                             | 7                | 576                | 1.5**            | (0.6-3.5)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 45. Prevalence of opioid pain reliever usage during pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                       | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                         | 28               | 1,531              | 1.5              | (0.9-2.5)               |
| <b>Maternal Age</b>                  |                  |                    |                  |                         |
| <20 Years                            |                  |                    | *                |                         |
| 20-29 Years                          | 7                | 195                | 0.4**            | (0.2-0.9)               |
| 30+ Years                            | 21               | 1,337              | 2.8              | (1.6-4.9)               |
| <b>Race/Ethnicity</b>                |                  |                    |                  |                         |
| White, non-Hispanic                  | 13               | 1,108              | 1.7**            | (0.9-3.2)               |
| Black, non-Hispanic                  | 13               | 364                | 2.2              | (1.2-3.8)               |
| Hispanic                             |                  |                    | *                |                         |
| Asian/Pacific Islander, non-Hispanic |                  |                    | *                |                         |
| Other, non-Hispanic                  |                  |                    | *                |                         |
| <b>Education</b>                     |                  |                    |                  |                         |
| <High School                         |                  |                    | *                |                         |
| HS Grad/GED                          | 8                | 249                | 1.0**            | (0.5-2.0)               |
| Some College                         | 8                | 498                | 1.8**            | (0.8-4.2)               |
| College Degree+                      | 7                | 655                | 1.8**            | (0.7-4.2)               |
| <b>Pregnancy Insurance Status</b>    |                  |                    |                  |                         |
| Private                              | 12               | 996                | 1.7**            | (0.9-3.4)               |
| Medicaid/Public                      | 16               | 535                | 1.5              | (0.8-2.6)               |
| <b>Marital Status</b>                |                  |                    |                  |                         |
| Married                              | 9                | 979                | 1.6**            | (0.8-3.3)               |
| Other                                | 18               | 526                | 1.4              | (0.8-2.2)               |
| <b>Parity</b>                        |                  |                    |                  |                         |
| No previous live birth               | 9                | 582                | 1.5**            | (0.7-3.3)               |
| 1                                    | 8                | 549                | 1.7**            | (0.7-4.2)               |
| 2+                                   | 11               | 401                | 1.5**            | (0.7-2.9)               |
| <b>Last Year's Household Income</b>  |                  |                    |                  |                         |
| <\$16,000                            | 8                | 234                | 1.9**            | (0.9-4.0)               |
| \$16,001-\$24,000                    | 7                | 309                | 3.6**            | (1.6-8.2)               |
| \$24,001-\$40,000                    |                  |                    | *                |                         |
| \$40,001-\$60,000                    |                  |                    | *                |                         |
| \$60,001+                            | 7                | 641                | 1.7**            | (0.7-4.0)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 46. Prevalence of opioid pain reliever usage after pregnancy by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 190              | 11,906             | 12.0             | (10.1-14.2)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              |                  |                    | *                |                         |
| 20-29 Years                            | 76               | 4,707              | 9.6              | (7.2-12.5)              |
| 30+ Years                              | 108              | 6,902              | 14.7             | (11.7-18.2)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 88               | 7,879              | 11.9             | (9.4-15.0)              |
| Black, non-Hispanic                    | 74               | 2,477              | 14.8             | (11.7-18.5)             |
| Hispanic                               | 8                | 435                | 6.8**            | (2.9-15.3)              |
| Asian/Pacific Islander, non-Hispanic   | 10               | 675                | 17.7**           | (8.6-32.9)              |
| Other, non-Hispanic                    | 10               | 441                | 7.8**            | (3.5-16.7)              |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 13               | 820                | 9.4**            | (4.2-19.8)              |
| HS Grad/GED                            | 49               | 2,808              | 11.2             | (7.8-15.7)              |
| Some College                           | 59               | 3,533              | 12.8             | (9.3-17.3)              |
| College Degree+                        | 69               | 4,746              | 12.7             | (9.7-16.5)              |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 104              | 7,439              | 13.1             | (10.4-16.2)             |
| Medicaid/Public                        | 82               | 4,290              | 11.1             | (8.4-14.6)              |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 103              | 7,048              | 11.8             | (9.4-14.6)              |
| Other                                  | 86               | 4,652              | 12.0             | (9.1-15.8)              |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 69               | 4,282              | 11.0             | (8.3-14.5)              |
| 1                                      | 64               | 4,181              | 12.8             | (9.4-17.1)              |
| 2+                                     | 57               | 3,443              | 12.5             | (9.0-17.2)              |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 27               | 1,300              | 10.8             | (6.4-17.5)              |
| \$16,001-\$24,000                      | 18               | 636                | 7.3              | (4.3-12.3)              |
| \$24,001-\$40,000                      | 23               | 1,287              | 9.1              | (5.4-14.8)              |
| \$40,001-\$60,000                      | 35               | 2,398              | 16.0             | (10.8-22.9)             |
| \$60,001+                              | 70               | 5,009              | 13.0             | (9.9-16.9)              |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.



**Table 47. Distribution of delivery methods,  
MI PRAMS, 2021**

| <b>Method</b>    | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|------------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Vaginal          | 872                         | 70,294                        | 69.2                        | (66.3-72.1)                        |
| First C-section  | 315                         | 18,222                        | 17.9                        | (15.8-20.4)                        |
| Repeat C-Section | 163                         | 11,188                        | 11.0                        | (9.1-13.3)                         |
| Vacuum delivery  |                             |                               | *                           |                                    |
| Forceps delivery | 25                          | 2,469                         | 2.4                         | (1.6-3.7)                          |

\*Data not shown due to small sample size and/or relative standard error > 50%.

**Table 48. Prevalence of low birthweight<sup>^</sup> by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                       | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                         | 276              | 8,429              | 8.3              | (8.1-8.5)               |
| <b>Maternal Age</b>                  |                  |                    |                  |                         |
| <20 Years                            | 8                | 294                | 9.3**            | (4.4-18.3)              |
| 20-29 Years                          | 128              | 4,078              | 8.0              | (7.0-9.2)               |
| 30+ Years                            | 140              | 4,057              | 8.5              | (7.5-9.7)               |
| <b>Race/Ethnicity</b>                |                  |                    |                  |                         |
| White, non-Hispanic                  | 159              | 4,602              | 6.9              | (6.2-7.7)               |
| Black, non-Hispanic                  | 78               | 2,631              | 14.9             | (12.7-17.6)             |
| Hispanic                             | 13               | 420                | 6.6              | (3.7-11.5)              |
| Asian/Pacific Islander, non-Hispanic | 12               | 354                | 8.5**            | (4.7-15.2)              |
| Other, non-Hispanic                  | 13               | 396                | 6.4              | (3.6-11.1)              |
| <b>Education</b>                     |                  |                    |                  |                         |
| <High School                         | 23               | 859                | 9.0              | (5.9-13.5)              |
| HS Grad/GED                          | 83               | 3,112              | 12.1             | (9.9-14.7)              |
| Some College                         | 86               | 2,271              | 8.1              | (6.7-9.7)               |
| College Degree+                      | 83               | 2,148              | 5.7              | (4.7-6.8)               |
| <b>Pregnancy Insurance Status</b>    |                  |                    |                  |                         |
| Medicaid/Public                      | 141              | 3,976              | 6.8              | (6.0-7.6)               |
| Private                              | 120              | 4,009              | 10.7             | (9.2-12.4)              |
| <b>Marital Status</b>                |                  |                    |                  |                         |
| Married                              | 137              | 3,858              | 6.3              | (5.6-7.1)               |
| Other                                | 136              | 4,468              | 11.3             | (9.8-12.9)              |
| <b>Parity</b>                        |                  |                    |                  |                         |
| No previous live birth               | 114              | 3,485              | 8.8              | (7.5-10.2)              |
| 1                                    | 74               | 2,201              | 6.7              | (5.4-8.2)               |
| 2+                                   | 87               | 2,717              | 9.5              | (7.8-11.5)              |
| <b>Last Year's Household Income</b>  |                  |                    |                  |                         |
| <\$16,000                            | 47               | 1,641              | 13.4             | (10.1-17.7)             |
| \$16,001-\$24,000                    | 31               | 986                | 11.3             | (7.8-16.0)              |
| \$24,001-\$40,000                    | 42               | 1,302              | 9.1              | (6.7-12.2)              |
| \$40,001-\$60,000                    | 39               | 1,154              | 7.6              | (5.6-10.4)              |
| \$60,001+                            | 88               | 2,321              | 6.0              | (5.0-7.2)               |

<sup>^</sup>Low birthweight infants are defined by the World Health Organization as infants weighing less than 2,500 grams at birth.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 49. Distribution of low birthweight subcategories<sup>^</sup> among low birthweight infants, MI PRAMS, 2021**

| Low Birthweight Subcategory | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|-----------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total Prevalence</b>     | 276              | 8,429              | 100.0            |                         |
| Very low birthweight        | 46               | 1,432              | 17.0             | (13.0-22.0)             |
| Moderately low birthweight  | 230              | 6,996              | 83.0             | (78.0-87.0)             |

<sup>^</sup>Very low birthweight = birthweight < 1,500g; moderately low birthweight = 1,500g <= birthweight <2,500g

**Table 50. Prevalence of low birthweight<sup>^</sup> by smoking status during last three months of pregnancy, MI PRAMS, 2021**

| Characteristic                              | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                                | 275              | 8,402              | 8.3              | (8.1-8.5)               |
| <b>Smoking status</b>                       |                  |                    |                  |                         |
| Did not smoke in last 3 months of pregnancy | 237              | 7,195              | 7.8              | (7.3-8.2)               |
| Smoked last 3 months of pregnancy           | 38               | 1,207              | 14.0             | (9.9-19.6)              |

<sup>^</sup>Low birthweight infants are defined by the World Health Organization as infants weighing less than 2,500 grams at birth.

**Table 51. Prevalence of high birthweight<sup>^</sup> by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                       | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--------------------------------------|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                         | 87               | 8,613              | 8.5              | (6.7-10.6)              |
| <b>Maternal Age</b>                  |                  |                    |                  |                         |
| <20 Years                            |                  |                    | *                |                         |
| 20-29 Years                          | 42               | 4,104              | 8.1              | (5.8-11.2)              |
| 30+ Years                            | 44               | 4,493              | 9.4              | (6.9-12.8)              |
| <b>Race/Ethnicity</b>                |                  |                    |                  |                         |
| White, non-Hispanic                  | 53               | 6,605              | 9.9              | (7.6-12.8)              |
| Black, non-Hispanic                  | 23               | 815                | 4.6              | (2.9-7.2)               |
| Hispanic                             | 6                | 793                | 12.5**           | (5.3-26.7)              |
| Asian/Pacific Islander, non-Hispanic |                  |                    | *                |                         |
| Other, non-Hispanic                  |                  |                    | *                |                         |
| <b>Education</b>                     |                  |                    |                  |                         |
| <High School                         | 7                | 857                | 9.0**            | (3.9-19.5)              |
| HS Grad/GED                          | 17               | 1,676              | 6.5              | (3.7-11.1)              |
| Some College                         | 26               | 2,466              | 8.8              | (5.8-13.2)              |
| College Degree+                      | 37               | 3,614              | 9.6              | (6.9-13.2)              |
| <b>Pregnancy Insurance Status</b>    |                  |                    |                  |                         |
| Medicaid/Public                      | 55               | 5,617              | 9.6              | (7.3-12.5)              |
| Private                              | 29               | 2,780              | 7.4              | (4.8-11.2)              |
| <b>Marital Status</b>                |                  |                    |                  |                         |
| Married                              | 56               | 5,930              | 9.7              | (7.4-12.6)              |
| Other                                | 31               | 2,683              | 6.8              | (4.4-10.2)              |
| <b>Parity</b>                        |                  |                    |                  |                         |
| No previous live birth               | 29               | 2,342              | 5.9              | (3.9-8.8)               |
| 1                                    | 29               | 3,177              | 9.6              | (6.6-13.8)              |
| 2+                                   | 29               | 3,093              | 10.8             | (7.3-15.8)              |
| <b>Last Year's Household Income</b>  |                  |                    |                  |                         |
| <\$16,000                            | 10               | 869                | 7.1**            | (3.4-14.3)              |
| \$16,001-\$24,000                    | 8                | 586                | 6.7**            | (2.7-15.8)              |
| \$24,001-\$40,000                    | 12               | 1,374              | 9.6**            | (5.1-17.2)              |
| \$40,001-\$60,000                    | 12               | 1,448              | 9.6              | (5.3-16.8)              |
| \$60,001+                            | 38               | 3,894              | 10.1             | (7.3-13.8)              |

<sup>^</sup>High birthweight infants are defined by the World Health Organization as infants weighing more than 4,000 grams at birth.

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 52. Prevalence of high birthweight<sup>^</sup> by diabetes before pregnancy or gestational diabetes, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 85               | 8,401              | 8.5              | (6.7-10.6)              |
| <b>Diabetes status</b>                 |                  |                    |                  |                         |
| No diabetes before or during pregnancy | 72               | 6,986              | 8.4              | (6.6-10.7)              |
| Diabetes before pregnancy              | 6                | 840                | 18.9**           | (8.5-36.9)              |
| Gestational diabetes                   | 7                | 574                | 4.8**            | (1.9-11.5)              |

<sup>^</sup>High birthweight infants are defined by the World Health Organization as infants weighing more than 4,000 grams at birth.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 53. Distribution of infant birthweights and gestational ages<sup>^</sup>, MI PRAMS, 2021**

| Characteristic                          | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---|------------------|--------------------|------------------|-------------------------|
| Infant both low birthweight and preterm | 183              | 5,467              | 5.4              | (4.9-5.9)               |
| Infant low birthweight and term         | 93               | 2,962              | 2.9              | (2.5-3.4)               |
| Infant not low birthweight, yes preterm | 53               | 4,027              | 4.0              | (2.9-5.5)               |
| Infant not low birthweight, yes term    | 1,045            | 89,177             | 87.7             | (86.4-89.0)             |

<sup>^</sup>Low birthweight infants are defined by the World Health Organization as infants weighing less than 2,500 grams at birth; preterm birth is defined by the World Health Organization as the birth of an infant before 37 weeks of pregnancy.

Gestational weeks is obtained from the Michigan birth certificate - obstetric estimate of gestation variable.

**Table 54. Prevalence of preterm birth<sup>^</sup> by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                       | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--------------------------------------|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                         | 236                 | 9,494                 | 9.3                 | (8.1-10.8)                 |
| <b>Maternal Age</b>                  |                     |                       |                     |                            |
| <20 Years                            | 9                   | 458                   | 14.5**              | (5.8-31.9)                 |
| 20-29 Years                          | 112                 | 4,551                 | 8.9                 | (7.2-11.1)                 |
| 30+ Years                            | 115                 | 4,484                 | 9.4                 | (7.5-11.7)                 |
| <b>Race/Ethnicity</b>                |                     |                       |                     |                            |
| White, non-Hispanic                  | 128                 | 5,781                 | 8.7                 | (6.9-10.8)                 |
| Black, non-Hispanic                  | 84                  | 2,897                 | 16.5                | (13.5-19.9)                |
| Hispanic                             | 6                   | 187                   | 3.0**               | (1.3-6.6)                  |
| Asian/Pacific Islander, non-Hispanic | 7                   | 283                   | 6.8**               | (2.8-15.6)                 |
| Other, non-Hispanic                  | 10                  | 318                   | 5.1**               | (2.3-11.0)                 |
| <b>Education</b>                     |                     |                       |                     |                            |
| <High School                         | 18                  | 846                   | 8.9**               | (4.8-15.7)                 |
| HS Grad/GED                          | 62                  | 2,830                 | 11.0                | (8.2-14.6)                 |
| Some College                         | 85                  | 3,207                 | 11.4                | (8.7-14.9)                 |
| College Degree+                      | 70                  | 2,573                 | 6.8                 | (5.1-9.0)                  |
| <b>Pregnancy Insurance Status</b>    |                     |                       |                     |                            |
| Medicaid/Public                      | 132                 | 5,495                 | 9.4                 | (7.6-11.6)                 |
| Private                              | 95                  | 3,505                 | 9.4                 | (7.5-11.6)                 |
| <b>Marital Status</b>                |                     |                       |                     |                            |
| Married                              | 126                 | 5,190                 | 8.5                 | (6.8-10.5)                 |
| Other                                | 107                 | 4,032                 | 10.2                | (8.2-12.6)                 |
| <b>Parity</b>                        |                     |                       |                     |                            |
| No previous live birth               | 95                  | 3,764                 | 9.5                 | (7.4-12.0)                 |
| 1                                    | 64                  | 2,690                 | 8.1                 | (6.0-11.0)                 |
| 2+                                   | 76                  | 3,013                 | 10.5                | (8.0-13.8)                 |
| <b>Last Year's Household Income</b>  |                     |                       |                     |                            |
| <\$16,000                            | 39                  | 1,482                 | 12.1                | (8.6-16.8)                 |
| \$16,001-\$24,000                    | 26                  | 899                   | 10.3                | (6.5-16.0)                 |
| \$24,001-\$40,000                    | 33                  | 1,068                 | 7.4                 | (5.1-10.7)                 |
| \$40,001-\$60,000                    | 38                  | 1,735                 | 11.5                | (7.8-16.7)                 |
| \$60,001+                            | 71                  | 2,797                 | 7.2                 | (5.3-9.7)                  |

<sup>^</sup>Preterm birth is defined by the World Health Organization as the birth of an infant before 37 weeks of pregnancy. Gestational weeks is obtained from the Michigan birth certificate - obstetric estimate of gestation variable.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 55. Breastfeeding duration categories<sup>^</sup>,  
MI PRAMS, 2021**

| Breastfeeding duration categories           | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---|------------------|--------------------|------------------|-------------------------|
| Did not Breastfeed                          | 185              | 11,638             | 11.6             | (9.7-13.9)              |
| Initiated Breastfeeding                     | 1,150            | 88,644             | 88.4             | (86.1-90.3)             |
| Breastfed at least 4 weeks (i.e. 1 month)   | 966              | 76,421             | 76.3             | (73.4-78.9)             |
| Breastfed at least 8 weeks (i.e. 2 months)  | 838              | 67,115             | 67.0             | (63.8-70.0)             |
| Breastfed at least 12 weeks (i.e. 3 months) | 642              | 51,706             | 56.9             | (53.5-60.3)             |

<sup>^</sup>Counts within these breastfeeding categories are non-exclusive. For example, a mother who breastfed for at least two months but not 3 will be counted in the totals for initiation, 1-month, and 2-month duration.

**Table 56. Reasons for not initiating breastfeeding,  
MI PRAMS, 2021**

| Reasons for not initiating breastfeeding | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Reasons (non-exclusive)</b>           |                  |                    |                  |                         |
| Mom did not want to breastfeed           | 81               | 4,221              | 36.0             | (27.6-45.3)             |
| Mom had other children to take care of   | 35               | 2,731              | 23.3             | (15.7-33.0)             |
| Mom did not like breastfeeding           | 51               | 2,726              | 23.2             | (16.6-31.5)             |
| Mom tried but it was too hard            | 33               | 2,451              | 20.9             | (13.9-30.2)             |
| Mom was sick or on medicine              | 19               | 1,311              | 11.2             | (6.3-18.9)              |
| Mom had too many other household duties  | 19               | 1,274              | 10.9             | (6.0-18.9)              |
| Mom returned to work                     | 23               | 1,200              | 10.2             | (5.9-17.2)              |
| Baby was in the hospital                 | 6                | 206                | 1.8**            | (0.8-3.9)               |
| Mom returned to school                   |                  |                    | *                |                         |
| Other                                    | 27               | 2,077              | 17.7             | (11.3-26.7)             |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 57. Cumulative number of reasons for not initiating breastfeeding,  
MI PRAMS, 2021**

|            | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|------------|------------------|--------------------|------------------|-------------------------|
| 0-1 reason | 114              | 7,603              | 64.8             | (55.3-73.2)             |
| 2 reasons  | 40               | 2,092              | 17.8             | (11.8-26.0)             |
| 3 reasons  | 25               | 1,284              | 10.9             | (6.4-18.0)              |
| 4+ reasons | 9                | 753                | 6.4**            | (2.8-14.0)              |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 58. Prevalence of breastfeeding initiation by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 1,150               | 88,644                | 88.4                | (86.1-90.3)                |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              | 40                  | 2,410                 | 77.3**              | (59.2-88.9)                |
| 20-29 Years                            | 567                 | 44,042                | 87.5                | (84.2-90.2)                |
| 30+ Years                              | 543                 | 42,193                | 90.1                | (86.7-92.7)                |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 576                 | 60,194                | 90.8                | (87.7-93.1)                |
| Black, non-Hispanic                    | 396                 | 12,931                | 76.2                | (71.7-80.1)                |
| Hispanic                               | 59                  | 5,400                 | 86.6**              | (72.0-94.2)                |
| Asian/Pacific Islander, non-Hispanic   |                     |                       | *                   |                            |
| Other, non-Hispanic                    |                     |                       | *                   |                            |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 90                  | 7,465                 | 80.1                | (71.0-86.9)                |
| HS Grad/GED                            | 275                 | 20,030                | 78.4                | (72.6-83.3)                |
| Some College                           | 364                 | 25,216                | 91.3                | (87.1-94.2)                |
| College Degree+                        | 418                 | 35,781                | 95.8                | (92.7-97.6)                |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 646                 | 54,371                | 94.7                | (92.3-96.3)                |
| Medicaid/Public                        | 465                 | 31,391                | 80.0                | (75.5-83.8)                |
| Uninsured*                             |                     |                       | *                   |                            |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 656                 | 57,739                | 95.1                | (93.0-96.6)                |
| Other                                  | 489                 | 30,544                | 78.6                | (74.0-82.6)                |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 506                 | 36,667                | 93.2                | (90.7-95.1)                |
| 1                                      | 345                 | 28,717                | 87.7                | (83.4-91.0)                |
| 2+                                     | 296                 | 23,064                | 82.3                | (76.7-86.8)                |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 148                 | 9,077                 | 76.1                | (67.4-83.0)                |
| \$16,001-\$24,000                      | 121                 | 7,185                 | 83.4                | (74.4-89.7)                |
| \$24,001-\$40,000                      | 172                 | 12,696                | 88.8                | (82.1-93.2)                |
| \$40,001-\$60,000                      | 157                 | 13,143                | 87.7                | (80.0-92.7)                |
| \$60,001+                              | 416                 | 36,710                | 95.5                | (92.7-97.2)                |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.



**Table 59. Prevalence of 1-month breastfeeding duration by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 966              | 76,421             | 76.3             | (73.4-78.9)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              | 26               | 1,735              | 55.7             | (37.1-72.7)             |
| 20-29 Years                            | 461              | 36,625             | 72.9             | (68.6-76.8)             |
| 30+ Years                              | 479              | 38,062             | 81.2             | (77.2-84.7)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 508              | 52,988             | 79.9             | (76.1-83.2)             |
| Black, non-Hispanic                    | 300              | 9,853              | 58.3             | (53.5-62.9)             |
| Hispanic                               | 51               | 4,577              | 73.4             | (59.0-84.1)             |
| Asian/Pacific Islander, non-Hispanic   |                  |                    | *                |                         |
| Other, non-Hispanic                    | 63               | 4,940              | 82.0             | (69.2-90.3)             |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 68               | 5,989              | 64.3             | (53.2-74.0)             |
| HS Grad/GED                            | 216              | 16,553             | 65.0             | (58.5-71.0)             |
| Some College                           | 296              | 20,268             | 73.4             | (67.6-78.5)             |
| College Degree+                        | 384              | 33,558             | 89.8             | (86.2-92.6)             |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 586              | 49,820             | 86.8             | (83.6-89.5)             |
| Medicaid/Public                        | 352              | 24,526             | 62.5             | (57.3-67.4)             |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 594              | 52,435             | 86.4             | (83.3-89.1)             |
| Other                                  | 367              | 23,625             | 60.8             | (55.6-65.8)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 407              | 29,737             | 75.6             | (71.2-79.6)             |
| 1                                      | 310              | 26,722             | 81.6             | (76.8-85.7)             |
| 2+                                     | 247              | 19,835             | 70.9             | (64.7-76.5)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 101              | 6,105              | 51.2             | (41.9-60.3)             |
| \$16,001-\$24,000                      | 93               | 5,642              | 65.5             | (55.1-74.6)             |
| \$24,001-\$40,000                      | 141              | 10,967             | 76.7             | (69.0-83.0)             |
| \$40,001-\$60,000                      | 138              | 11,362             | 75.8             | (67.2-82.8)             |
| \$60,001+                              | 386              | 34,146             | 88.8             | (84.9-91.7)             |

\*Data not shown due to small sample size and/or relative standard error > 50%.

**Table 60. Prevalence of 2-month breastfeeding duration by maternal characteristics,  
MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 838                 | 67,115                | 67.0                | (63.8-70.0)                |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              | 18                  | 1,410                 | 45.2                | (27.6-64.2)                |
| 20-29 Years                            | 389                 | 30,922                | 61.5                | (56.9-66.0)                |
| 30+ Years                              | 431                 | 34,783                | 74.2                | (69.9-78.2)                |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 449                 | 46,857                | 70.7                | (66.5-74.5)                |
| Black, non-Hispanic                    | 249                 | 8,147                 | 48.2                | (43.4-53.0)                |
| Hispanic                               | 46                  | 4,120                 | 66.1                | (51.7-78.0)                |
| Asian/Pacific Islander, non-Hispanic   | 36                  | 3,364                 | 83.8**              | (66.3-93.1)                |
| Other, non-Hispanic                    | 54                  | 4,205                 | 69.8                | (55.9-80.9)                |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 56                  | 5,017                 | 53.8                | (42.3-65.0)                |
| HS Grad/GED                            | 183                 | 14,295                | 56.1                | (49.4-62.6)                |
| Some College                           | 248                 | 16,732                | 60.6                | (54.5-66.4)                |
| College Degree+                        | 349                 | 31,019                | 83.0                | (78.8-86.6)                |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 521                 | 45,009                | 78.4                | (74.7-81.8)                |
| Medicaid/Public                        | 293                 | 20,336                | 51.8                | (46.5-57.1)                |
| Uninsured                              | 8                   | 860                   | 54.5**              | (25.8-80.5)                |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 534                 | 47,715                | 78.7                | (75.1-81.9)                |
| Other                                  | 299                 | 19,039                | 49.0                | (43.7-54.3)                |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 341                 | 25,817                | 65.7                | (60.9-70.1)                |
| 1                                      | 274                 | 23,186                | 70.8                | (65.2-75.9)                |
| 2+                                     | 221                 | 17,986                | 64.3                | (57.8-70.3)                |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 88                  | 5,303                 | 44.4                | (35.4-53.8)                |
| \$16,001-\$24,000                      | 73                  | 4,598                 | 53.4                | (42.8-63.7)                |
| \$24,001-\$40,000                      | 116                 | 9,440                 | 66.0                | (57.6-73.5)                |
| \$40,001-\$60,000                      | 118                 | 9,720                 | 64.9                | (56.0-72.9)                |
| \$60,001+                              | 356                 | 31,590                | 82.1                | (77.6-85.9)                |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 61. Prevalence of 3-month breastfeeding duration by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 642              | 51,706             | 56.9             | (53.5-60.3)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              | 11               | 849                | 27.9             | (13.8-48.3)             |
| 20-29 Years                            | 283              | 22,933             | 50.0             | (45.1-54.9)             |
| 30+ Years                              | 348              | 27,924             | 66.6             | (61.8-71.2)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 359              | 37,141             | 61.6             | (57.0-65.9)             |
| Black, non-Hispanic                    | 180              | 6,003              | 37.7             | (33.1-42.6)             |
| Hispanic                               | 32               | 2,756              | 50.2             | (35.7-64.6)             |
| Asian/Pacific Islander, non-Hispanic   | 28               | 2,453              | 76.3**           | (56.5-88.8)             |
| Other, non-Hispanic                    | 40               | 3,062              | 58.1             | (42.7-72.0)             |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 35               | 2,862              | 32.0             | (21.9-44.3)             |
| HS Grad/GED                            | 132              | 10,746             | 45.2             | (38.4-52.2)             |
| Some College                           | 187              | 12,514             | 50.9             | (44.5-57.3)             |
| College Degree+                        | 286              | 25,532             | 77.1             | (72.2-81.4)             |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Uninsured                              | 416              | 35,917             | 69.8             | (65.5-73.8)             |
| Medicaid/Public                        | 205              | 14,384             | 39.7             | (34.4-45.3)             |
| Private                                | 7                | 728                | 50.4             | (22.0-78.6)             |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 428              | 37,713             | 70.3             | (66.0-74.2)             |
| Other                                  | 211              | 13,691             | 37.5             | (32.4-43.0)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 256              | 19,571             | 56.0             | (50.8-61.1)             |
| 1                                      | 217              | 18,309             | 61.7             | (55.5-67.6)             |
| 2+                                     | 168              | 13,726             | 52.7             | (46.0-59.4)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 58               | 3,170              | 29.4             | (21.5-38.7)             |
| \$16,001-\$24,000                      | 52               | 3,013              | 40.2             | (29.5-51.8)             |
| \$24,001-\$40,000                      | 81               | 6,468              | 50.3             | (41.2-59.4)             |
| \$40,001-\$60,000                      | 94               | 8,197              | 62.1             | (52.6-70.7)             |
| \$60,001+                              | 291              | 26,137             | 74.1             | (68.9-78.7)             |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 62. Reasons for stopping breastfeeding,  
MI PRAMS, 2021**

| <b>Reasons (non-exclusive)</b>          | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|---|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Wasn't Producing Enough Milk            | 262                         | 19,499                        | 51.7                        | (46.3-57.0)                        |
| Baby Had Difficulty Nursing or Latching | 184                         | 13,664                        | 36.2                        | (31.2-41.5)                        |
| Breastmilk Didn't Satisfy Baby          | 149                         | 11,851                        | 31.4                        | (26.6-36.6)                        |
| Nipples Were Sore, Cracked, or Bleeding | 112                         | 7,656                         | 20.3                        | (16.4-24.9)                        |
| Too Many Household Duties               | 109                         | 7,162                         | 19.0                        | (15.2-23.4)                        |
| Went Back to Work                       | 90                          | 5,416                         | 14.4                        | (11.1-18.3)                        |
| Baby Wasn't Gaining Weight              | 67                          | 4,973                         | 13.2                        | (9.9-17.3)                         |
| It Was Right Time to Stop               | 59                          | 3,860                         | 10.2                        | (7.6-13.7)                         |
| I Was Sick                              | 36                          | 2,292                         | 6.1                         | (4.1-9.0)                          |
| Baby Was Jaundiced                      | 28                          | 2,136                         | 5.7                         | (3.6-8.8)                          |
| Went Back to School                     | 14                          | 522                           | 1.4                         | (0.8-2.5)                          |
| Partner Didn't Support                  |                             |                               | *                           |                                    |
| Other                                   | 86                          | 5,821                         | 15.4                        | (12.0-19.6)                        |

\*Data not shown due to small sample size and/or relative standard error > 50%.

**Table 63. Breastfeeding information sources before or after delivery,  
MI PRAMS, 2021**

| Breastfeeding information source           | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Information sources (non-exclusive)</b> |                  |                    |                  |                         |
| Mom's doctor                               | 1,050            | 77,345             | 77.7             | (74.8-80.4)             |
| Nurse, midwife, or doula                   | 984              | 73,319             | 75.1             | (72.1-77.9)             |
| Breastfeeding or lactation specialist      | 967              | 71,284             | 72.1             | (69.0-75.0)             |
| Baby's doctor                              | 928              | 68,388             | 69.4             | (66.3-72.4)             |
| Family or friends                          | 779              | 57,777             | 58.4             | (55.1-61.6)             |
| Breastfeeding support group                | 337              | 21,013             | 21.4             | (18.9-24.1)             |
| Hotline or toll-free number                | 178              | 10,779             | 11.0             | (9.2-13.1)              |
| Other                                      | 100              | 7,384              | 9.2              | (7.3-11.5)              |

**Table 64. Total number of breastfeeding information sources,  
MI PRAMS, 2021**

| Number of sources of breastfeeding information | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| 0  | 40               | 3,358              | 3.4              | (2.3-4.8)               |
| 1  | 75               | 5,584              | 5.6              | (4.2-7.3)               |
| 2  | 161              | 13,925             | 13.9             | (11.7-16.4)             |
| 3  | 217              | 16,093             | 16.1             | (13.8-18.6)             |
| 4  | 288              | 22,715             | 22.7             | (20.0-25.6)             |
| 5  | 306              | 23,019             | 23.0             | (20.3-25.9)             |
| 6  | 146              | 9,248              | 9.2              | (7.6-11.2)              |
| 7  | 91               | 5,779              | 5.8              | (4.4-7.5)               |
| 8  | 10               | 461                | 0.5**            | (0.2-1.0)               |

**\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.**

**Table 65. Did mother ever use a breast pump<sup>^</sup>,  
MI PRAMS, 2021**

| Breast pump usage | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|-------------------|------------------|--------------------|------------------|-------------------------|
| Yes               | 1,027            | 79,581             | 90.3             | (87.8-92.2)             |
| No                | 116              | 8,596              | 9.7              | (7.8-12.2)              |

<sup>^</sup>Denominator for this question is limited to those who report that they did initiate breastfeeding with their infant (Table 58)

**Table 66. Source of breast pump<sup>^</sup>,  
MI PRAMS, 2021**

| Source of breast pump                       | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---|------------------|--------------------|------------------|-------------------------|
| <b>Breast Pump Source (non-exclusive)</b>   |                  |                    |                  |                         |
| Bought new from store or online             | 312              | 26,388             | 33.1             | (29.7-36.7)             |
| Free from hospital                          | 312              | 20,531             | 25.7             | (22.7-29.0)             |
| Had one from previous child                 | 128              | 11,413             | 14.3             | (11.9-17.2)             |
| Previously used by someone else             | 72               | 5,655              | 7.1              | (5.4-9.3)               |
| New as a gift                               | 63               | 4,252              | 5.3              | (3.9-7.2)               |
| Bought new from hospital or doctor's office | 42               | 3,508              | 4.4              | (3.1-6.2)               |
| New from WIC                                | 43               | 2,326              | 2.9              | (2.0-4.2)               |
| Rented from hospital or doctor's office     | 16               | 1,001              | 1.3              | (0.7-2.3)               |
| Other                                       | 262              | 21,280             | 26.7             | (23.6-30.1)             |

<sup>^</sup>Denominator for this question is limited to those who report that they did initiate breastfeeding with their infant (Table 58)

**Table 67. Prevalence of ever using a breast pump^ by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 1,027            | 79,581             | 90.3             | (87.8-92.2)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              |                  |                    | *                |                         |
| 20-29 Years                            | 500              | 38,859             | 89.0             | (85.2-91.9)             |
| 30+ Years                              | 493              | 38,610             | 91.6             | (88.3-94.0)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 536              | 55,504             | 92.4             | (89.3-94.6)             |
| Black, non-Hispanic                    | 341              | 11,422             | 89.4             | (85.9-92.2)             |
| Hispanic                               | 51               | 4,631              | 85.8**           | (71.3-93.6)             |
| Asian/Pacific Islander, non-Hispanic   | 30               | 2,507              | 64.6             | (47.1-78.9)             |
| Other, non-Hispanic                    | 64               | 4,898              | 90.5**           | (77.4-96.4)             |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 71               | 5,673              | 79.1             | (64.9-88.5)             |
| HS Grad/GED                            | 237              | 17,910             | 90.3             | (84.7-94.0)             |
| Some College                           | 326              | 22,301             | 88.4             | (83.2-92.1)             |
| College Degree+                        | 390              | 33,543             | 93.7             | (90.7-95.8)             |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 603              | 50,787             | 93.7             | (91.0-95.5)             |
| Medicaid/Public                        | 395              | 26,843             | 86.5             | (81.6-90.3)             |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 603              | 52,485             | 91.2             | (88.3-93.5)             |
| Other                                  | 419              | 26,735             | 88.3             | (83.7-91.7)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 469              | 34,519             | 94.5             | (91.6-96.4)             |
| 1                                      | 306              | 26,019             | 90.5             | (86.2-93.6)             |
| 2+                                     | 249              | 18,847             | 83.0             | (76.4-88.0)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 115              | 7,285              | 82.9             | (73.0-89.7)             |
| \$16,001-\$24,000                      | 102              | 5,830              | 81.3             | (68.9-89.5)             |
| \$24,001-\$40,000                      | 154              | 11,232             | 88.5             | (80.0-93.6)             |
| \$40,001-\$60,000                      | 145              | 11,915             | 90.7**           | (83.2-95.0)             |
| \$60,001+                              | 394              | 34,971             | 95.3             | (92.4-97.1)             |

^Denominator for this question is limited to those who report that they did initiate breastfeeding with their infant (Table 58)

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 68. Baby health indicators,  
MI PRAMS, 2021**

| Health Indicators  | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| Baby got breast milk from source other than mom  | 143              | 10,051             | 10.3             | (8.4-12.5)              |
| Baby has a doctor, nurse, or medical practice where he or she is seen on a regular basis | 1,195            | 91,998             | 94.4             | (92.8-95.7)             |
| Baby will see a dentist by his or her first birthday                                     | 929              | 65,150             | 67.9             | (64.7-71.0)             |

**Table 69. Distribution of WIC status during pregnancy,  
MI PRAMS, 2021**

| WIC Status | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|------------|------------------|--------------------|------------------|-------------------------|
| No^        | 841              | 67,446             | 66.9             | (63.8-69.9)             |
| Yes        | 521              | 33,308             | 33.1             | (30.1-36.2)             |

^This variable is for any WIC participation. Respondents in the "no" category may or may not have qualified for WIC during pregnancy.

**Table 70. How often infant slept alone in his/her own bed over last two weeks,  
MI PRAMS, 2021**

| Baby Sleep - Alone  | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---------------------|------------------|--------------------|------------------|-------------------------|
| Always              | 787              | 63,846             | 64.1             | (60.9-67.2)             |
| Often/Almost Always | 269              | 18,401             | 18.5             | (16.1-21.1)             |
| Sometimes           | 130              | 7,970              | 8.0              | (6.5-9.9)               |
| Rarely              | 69               | 4,307              | 4.3              | (3.3-5.7)               |
| Never               | 66               | 5,073              | 5.1              | (3.8-6.8)               |



**Table 71. Prevalence of infant sleeping in the same room as mother when sleeping alone in his/her own own crib or bed<sup>^</sup>, MI PRAMS, 2021**

| Baby in Room with Mom | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|-----------------------|------------------|--------------------|------------------|-------------------------|
| Yes                   | 1,058            | 77,377             | 82.0             | (79.3-84.5)             |
| No                    | 194              | 16,966             | 18.0             | (15.5-20.7)             |

<sup>^</sup>Denominator is limited to those who answered "always", "often", "sometimes" or "rarely" to the question from Table 70: "In the past 2 weeks, how often has your new baby slept alone in his or her own crib or bed?" This table excludes those who say their infant *never* sleeps alone.

**Table 72. Infant sleep space characteristics, MI PRAMS, 2021**

| Baby Sleep Space                       | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Characteristics (non-exclusive)</b> |                  |                    |                  |                         |
| Crib/Bassinet/Pack and Play            | 1,222            | 91,562             | 92.1             | (90.1-93.8)             |
| Sleep Sack/Wearable Blanket            | 578              | 50,126             | 51.3             | (48.0-54.6)             |
| Car Seat/Swing                         | 541              | 42,076             | 43.1             | (39.8-46.4)             |
| With Blanket                           | 417              | 30,708             | 31.4             | (28.4-34.6)             |
| Twin or Larger Mattress/Bed            | 322              | 22,146             | 22.6             | (20.0-25.5)             |
| Couch/Sofa                             | 106              | 6,471              | 6.6              | (5.2-8.4)               |
| With Bumper Pads                       | 91               | 6,336              | 6.5              | (5.0-8.4)               |
| With Toys, Cushions, Pillows           | 69               | 5,013              | 5.1              | (3.8-6.8)               |

**Table 73. Primary infant sleep position, MI PRAMS, 2021**

| Primary Infant Sleep Position | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|-------------------------------|------------------|--------------------|------------------|-------------------------|
| Back                          | 1,094            | 86,102             | 86.5             | (84.3-88.5)             |
| Side                          | 92               | 6,114              | 6.1              | (4.8-7.9)               |
| Stomach                       | 90               | 5,176              | 5.2              | (4.0-6.7)               |
| Side/Back                     | 16               | 769                | 0.8**            | (0.4-1.5)               |
| Back/Stomach                  | 11               | 522                | 0.5**            | (0.2-1.3)               |
| Side/Stomach                  |                  |                    | *                |                         |
| All 3 Positions               | 14               | 603                | 0.6**            | (0.3-1.1)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution

**Table 74. Prevalence of infant always or often sleeping alone in his/her own crib or bed in the last two weeks by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 1,056            | 82,246             | 82.6             | (80.0-84.9)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              | 40               | 2,602              | 85.7**           | (72.8-93.0)             |
| 20-29 Years                            | 526              | 40,778             | 81.6             | (77.8-84.9)             |
| 30+ Years                              | 490              | 38,866             | 83.4             | (79.6-86.6)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 540              | 57,407             | 86.9             | (83.7-89.6)             |
| Black, non-Hispanic                    | 373              | 12,182             | 72.4             | (67.9-76.5)             |
| Hispanic                               | 53               | 5,062              | 81.7             | (68.8-90.1)             |
| Asian/Pacific Islander, non-Hispanic   | 30               | 2,675              | 67.1             | (49.4-80.9)             |
| Other, non-Hispanic                    | 55               | 4,228              | 72.7             | (58.7-83.3)             |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 101              | 8,027              | 89.0             | (81.7-93.6)             |
| HS Grad/GED                            | 275              | 19,600             | 77.2             | (71.1-82.3)             |
| Some College                           | 305              | 22,063             | 80.1             | (74.9-84.4)             |
| College Degree+                        | 371              | 32,144             | 86.4             | (82.5-89.6)             |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 560              | 48,923             | 85.7             | (82.6-88.3)             |
| Medicaid/Public                        | 459              | 30,380             | 78.2             | (73.5-82.2)             |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 579              | 50,980             | 84.6             | (81.3-87.4)             |
| Other                                  | 471              | 30,617             | 79.2             | (74.9-83.0)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 434              | 31,853             | 81.6             | (77.7-85.1)             |
| 1                                      | 332              | 28,550             | 87.3             | (83.3-90.4)             |
| 2+                                     | 287              | 21,646             | 78.2             | (72.3-83.2)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 159              | 9,604              | 81.0             | (73.0-87.1)             |
| \$16,001-\$24,000                      | 112              | 6,691              | 77.7             | (68.2-85.0)             |
| \$24,001-\$40,000                      | 145              | 11,572             | 81.6             | (74.4-87.1)             |
| \$40,001-\$60,000                      | 139              | 12,514             | 84.1             | (76.9-89.4)             |
| \$60,001+                              | 367              | 32,684             | 85.1             | (81.0-88.5)             |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 75. Prevalence of infant sleeping in the same room as mother when sleeping alone in his/her own crib or bed^ by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 1,058            | 77,377             | 82.0             | (79.3-84.5)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              |                  |                    | *                |                         |
| 20-29 Years                            | 543              | 39,618             | 84.7             | (80.8-87.9)             |
| 30+ Years                              | 467              | 34,908             | 78.3             | (74.0-82.1)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 463              | 49,362             | 78.8             | (75.0-82.1)             |
| Black, non-Hispanic                    | 436              | 14,243             | 91.2             | (88.1-93.6)             |
| Hispanic                               | 50               | 4,760              | 80.2             | (66.5-89.2)             |
| Asian/Pacific Islander, non-Hispanic   |                  |                    | *                |                         |
| Other, non-Hispanic                    | 65               | 4,738              | 87.6**           | (75.1-94.3)             |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 113              | 8,057              | 91.1**           | (80.2-96.3)             |
| HS Grad/GED                            | 307              | 20,999             | 90.6             | (85.8-94.0)             |
| Some College                           | 325              | 21,329             | 82.8             | (77.4-87.2)             |
| College Degree+                        | 309              | 26,580             | 73.5             | (68.4-78.0)             |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 501              | 41,776             | 76.5             | (72.5-80.1)             |
| Medicaid/Public                        | 516              | 32,269             | 89.1             | (85.0-92.2)             |
| None                                   |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 508              | 44,191             | 77.0             | (73.1-80.5)             |
| Other                                  | 542              | 32,490             | 89.6             | (85.7-92.5)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 416              | 28,020             | 75.7             | (70.9-79.9)             |
| 1                                      | 326              | 26,156             | 84.0             | (79.1-87.9)             |
| 2+                                     | 313              | 23,005             | 88.5             | (83.3-92.2)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 182              | 10,378             | 93.6             | (87.8-96.7)             |
| \$16,001-\$24,000                      | 125              | 6,778              | 85.3             | (75.1-91.7)             |
| \$24,001-\$40,000                      | 163              | 11,807             | 85.6             | (77.9-90.9)             |
| \$40,001-\$60,000                      | 145              | 12,119             | 83.9             | (75.9-89.6)             |
| \$60,001+                              | 300              | 26,541             | 73.0             | (67.9-77.5)             |

^Denominator is limited to those who answered "always", "often", "sometimes" or "rarely" to the question from Table 70: "In the past 2 weeks, how often has your new baby slept alone in his or her own crib or bed?" This table excludes those who say their infant *never* sleeps alone.

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 76. Prevalence of infant usually sleeping in a crib<sup>^</sup> by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 1,222            | 91,562             | 92.1             | (90.1-93.8)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              |                  |                    | *                |                         |
| 20-29 Years                            | 610              | 45,435             | 91.1             | (87.9-93.4)             |
| 30+ Years                              | 563              | 43,417             | 93.5             | (90.6-95.5)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 574              | 60,899             | 92.2             | (89.5-94.3)             |
| Black, non-Hispanic                    | 474              | 15,547             | 92.7             | (89.7-94.9)             |
| Hispanic                               |                  |                    | *                |                         |
| Asian/Pacific Islander, non-Hispanic   |                  |                    | *                |                         |
| Other, non-Hispanic                    | 70               | 5,232              | 90.0             | (77.4-95.9)             |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 119              | 8,463              | 93.7**           | (83.8-97.7)             |
| HS Grad/GED                            | 336              | 23,066             | 91.1             | (86.3-94.3)             |
| Some College                           | 355              | 24,588             | 89.1             | (84.6-92.4)             |
| College Degree+                        | 408              | 35,033             | 94.6             | (91.7-96.5)             |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 626              | 53,107             | 93.4             | (91.0-95.2)             |
| Medicaid/Public                        | 552              | 35,143             | 90.4             | (86.5-93.2)             |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 640              | 55,713             | 92.7             | (90.1-94.7)             |
| Other                                  | 576              | 35,218             | 91.2             | (87.7-93.8)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 507              | 35,757             | 92.1             | (88.9-94.4)             |
| 1                                      | 374              | 30,672             | 93.7             | (90.5-95.9)             |
| 2+                                     | 338              | 24,938             | 90.2             | (85.2-93.7)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 190              | 10,979             | 92.9**           | (86.5-96.4)             |
| \$16,001-\$24,000                      | 138              | 8,164              | 95.0**           | (89.6-97.6)             |
| \$24,001-\$40,000                      | 179              | 13,231             | 93.0**           | (87.5-96.2)             |
| \$40,001-\$60,000                      | 155              | 13,041             | 88.2             | (80.9-92.9)             |
| \$60,001+                              | 407              | 35,920             | 93.6             | (90.4-95.8)             |

<sup>^</sup>Wording in question is "crib, bassinet, or pack and play".

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 77. Prevalence of infant usually sleeping on an adult-sized mattress  
by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 322                 | 22,146                | 22.6                | (20.0-25.5)                |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              | 21                  | 926                   | 31.9                | (17.5-50.9)                |
| 20-29 Years                            | 171                 | 12,260                | 24.7                | (20.9-29.0)                |
| 30+ Years                              | 130                 | 8,960                 | 19.7                | (16.2-23.7)                |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 105                 | 12,066                | 18.6                | (15.4-22.3)                |
| Black, non-Hispanic                    | 164                 | 5,355                 | 32.5                | (28.2-37.2)                |
| Hispanic                               | 22                  | 2,221                 | 35.9                | (23.9-49.9)                |
| Asian/Pacific Islander, non-Hispanic   | 17                  | 1,719                 | 43.1                | (27.8-59.8)                |
| Other, non-Hispanic                    | 12                  | 553                   | 9.8**               | (4.5-20.1)                 |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 32                  | 1,873                 | 21.1                | (13.2-32.0)                |
| HS Grad/GED                            | 98                  | 6,868                 | 27.3                | (21.7-33.8)                |
| Some College                           | 111                 | 6,947                 | 25.8                | (20.9-31.4)                |
| College Degree+                        | 79                  | 6,258                 | 17.1                | (13.6-21.3)                |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 144                 | 10,839                | 19.3                | (16.1-22.9)                |
| Medicaid/Public                        | 162                 | 10,189                | 26.7                | (22.2-31.7)                |
| Uninsured                              |                     |                       | *                   |                            |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 121                 | 10,449                | 17.6                | (14.6-21.0)                |
| Other                                  | 198                 | 11,363                | 30.1                | (25.5-35.1)                |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 146                 | 9,263                 | 24.3                | (20.3-28.8)                |
| 1                                      | 87                  | 6,221                 | 19.3                | (15.2-24.2)                |
| 2+                                     | 89                  | 6,663                 | 24.4                | (19.2-30.6)                |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 52                  | 2,794                 | 23.8                | (16.9-32.4)                |
| \$16,001-\$24,000                      | 42                  | 2,331                 | 27.3                | (18.9-37.5)                |
| \$24,001-\$40,000                      | 50                  | 3,357                 | 24.1                | (17.5-32.3)                |
| \$40,001-\$60,000                      | 44                  | 3,326                 | 22.8                | (16.3-30.8)                |
| \$60,001+                              | 78                  | 6,663                 | 17.7                | (14.0-22.1)                |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 78. Prevalence of infant usually sleeping on a couch, sofa, or armchair  
by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 106                 | 6,471                 | 6.6                 | (5.2-8.4)                  |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              |                     |                       | *                   |                            |
| 20-29 Years                            | 58                  | 3,809                 | 7.8                 | (5.7-10.6)                 |
| 30+ Years                              | 43                  | 2,561                 | 5.6                 | (3.8-8.1)                  |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 36                  | 3,755                 | 5.8                 | (4.0-8.2)                  |
| Black, non-Hispanic                    | 57                  | 1,929                 | 11.7                | (8.9-15.2)                 |
| Hispanic                               | 6                   | 421                   | 6.8**               | (2.5-17.1)                 |
| Asian/Pacific Islander, non-Hispanic   |                     |                       | 0.0                 |                            |
| Other, non-Hispanic                    | 6                   | 340                   | 6.3**               | (2.3-16.1)                 |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 9                   | 749                   | 8.5**               | (3.5-19.2)                 |
| HS Grad/GED                            | 30                  | 1,332                 | 5.3                 | (3.3-8.6)                  |
| Some College                           | 38                  | 2,244                 | 8.3                 | (5.6-12.2)                 |
| College Degree+                        | 29                  | 2,146                 | 5.9                 | (3.9-8.8)                  |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 61                  | 3,903                 | 6.9                 | (5.1-9.3)                  |
| Medicaid/Public                        | 44                  | 2,542                 | 6.7                 | (4.5-9.8)                  |
| Uninsured*                             |                     |                       | *                   |                            |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 48                  | 3,160                 | 5.3                 | (3.8-7.4)                  |
| Other                                  | 58                  | 3,311                 | 8.7                 | (6.2-12.2)                 |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 52                  | 2,797                 | 7.3                 | (5.2-10.2)                 |
| 1                                      | 34                  | 2,364                 | 7.3                 | (4.9-11.0)                 |
| 2+                                     | 20                  | 1,310                 | 4.8                 | (2.7-8.4)                  |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 16                  | 998                   | 8.5**               | (4.4-15.9)                 |
| \$16,001-\$24,000                      | 11                  | 522                   | 6.1**               | (3.0-11.9)                 |
| \$24,001-\$40,000                      | 14                  | 748                   | 5.4**               | (2.6-10.9)                 |
| \$40,001-\$60,000                      | 19                  | 1,268                 | 8.7                 | (5.1-14.6)                 |
| \$60,001+                              | 30                  | 2,201                 | 5.9                 | (3.9-8.8)                  |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 79. Prevalence of infant usually sleeping in an infant car seat or swing  
by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 541                 | 42,076                | 43.1                | (39.8-46.4)                |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              | 32                  | 1,981                 | 68.2                | (47.9-83.4)                |
| 20-29 Years                            | 268                 | 21,190                | 42.9                | (38.2-47.7)                |
| 30+ Years                              | 241                 | 18,906                | 41.7                | (37.0-46.5)                |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 269                 | 28,168                | 43.4                | (39.1-47.8)                |
| Black, non-Hispanic                    | 187                 | 6,348                 | 38.6                | (33.9-43.4)                |
| Hispanic                               | 24                  | 2,255                 | 36.4                | (24.3-50.5)                |
| Asian/Pacific Islander, non-Hispanic   | 20                  | 2,022                 | 52.0                | (35.6-68.0)                |
| Other, non-Hispanic                    | 39                  | 3,051                 | 55.5                | (41.2-69.0)                |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 45                  | 3,699                 | 42.1                | (30.7-54.4)                |
| HS Grad/GED                            | 143                 | 10,227                | 40.9                | (34.4-47.8)                |
| Some College                           | 163                 | 11,624                | 43.2                | (37.1-49.4)                |
| College Degree+                        | 188                 | 16,229                | 44.4                | (39.1-49.7)                |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 293                 | 24,154                | 42.9                | (38.7-47.3)                |
| Medicaid/Public                        | 232                 | 16,478                | 43.4                | (38.1-48.9)                |
| Uninsured                              | 7                   | 925                   | 57.2**              | (28.9-81.5)                |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 291                 | 25,394                | 42.9                | (38.7-47.2)                |
| Other                                  | 244                 | 16,220                | 42.9                | (37.6-48.3)                |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 231                 | 16,276                | 43.1                | (38.1-48.2)                |
| 1                                      | 177                 | 15,135                | 46.8                | (40.9-52.7)                |
| 2+                                     | 132                 | 10,565                | 38.6                | (32.3-45.3)                |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 68                  | 4,017                 | 34.7                | (26.5-43.9)                |
| \$16,001-\$24,000                      | 53                  | 3,398                 | 39.9                | (29.8-50.9)                |
| \$24,001-\$40,000                      | 82                  | 6,532                 | 47.2                | (38.4-56.3)                |
| \$40,001-\$60,000                      | 72                  | 6,087                 | 42.5                | (33.9-51.6)                |
| \$60,001+                              | 193                 | 16,696                | 44.1                | (38.8-49.5)                |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 80. Prevalence of infant usually sleeping in a sleep sack or wearable blanket  
by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 578                 | 50,126                | 51.3                | (48.0-54.6)                |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              | 20                  | 1,180                 | 40.9                | (23.6-60.8)                |
| 20-29 Years                            | 255                 | 22,588                | 46.0                | (41.3-50.7)                |
| 30+ Years                              | 303                 | 26,358                | 57.8                | (53.0-62.4)                |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 376                 | 39,219                | 60.3                | (55.9-64.5)                |
| Black, non-Hispanic                    | 119                 | 3,928                 | 24.0                | (20.1-28.4)                |
| Hispanic                               | 23                  | 1,823                 | 29.4                | (18.8-43.0)                |
| Asian/Pacific Islander, non-Hispanic   | 22                  | 1,968                 | 52.4                | (35.6-68.6)                |
| Other, non-Hispanic                    | 34                  | 2,597                 | 47.0                | (33.3-61.1)                |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 31                  | 2,878                 | 32.7                | (22.1-45.4)                |
| HS Grad/GED                            | 105                 | 8,378                 | 33.9                | (27.8-40.7)                |
| Some College                           | 174                 | 14,217                | 52.4                | (46.3-58.5)                |
| College Degree+                        | 266                 | 24,356                | 66.5                | (61.4-71.3)                |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 384                 | 35,161                | 62.3                | (58.0-66.4)                |
| Medicaid/Public                        | 184                 | 14,256                | 37.8                | (32.6-43.3)                |
| Uninsured                              |                     |                       | *                   |                            |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 384                 | 35,434                | 60.1                | (55.8-64.2)                |
| Other                                  | 190                 | 14,213                | 37.4                | (32.3-42.9)                |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 250                 | 20,252                | 52.7                | (47.7-57.6)                |
| 1                                      | 193                 | 17,820                | 55.6                | (49.6-61.3)                |
| 2+                                     | 134                 | 11,954                | 44.4                | (37.8-51.1)                |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 54                  | 4,081                 | 35.7                | (26.9-45.6)                |
| \$16,001-\$24,000                      | 44                  | 3,230                 | 37.8                | (27.9-48.9)                |
| \$24,001-\$40,000                      | 77                  | 6,706                 | 48.0                | (39.1-56.9)                |
| \$40,001-\$60,000                      | 79                  | 6,963                 | 48.9                | (40.0-57.8)                |
| \$60,001+                              | 282                 | 25,892                | 68.1                | (62.9-72.8)                |

\*Data not shown due to small sample size and/or relative standard error > 50%.



**Table 81. Prevalence of infant usually sleeping with a blanket  
by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 417                 | 30,708                | 31.4                | (28.4-34.6)                |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              | 27                  | 1,417                 | 48.8                | (30.0-68.0)                |
| 20-29 Years                            | 227                 | 16,914                | 34.5                | (30.1-39.1)                |
| 30+ Years                              | 163                 | 12,377                | 27.1                | (23.0-31.6)                |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 153                 | 17,462                | 26.9                | (23.1-31.1)                |
| Black, non-Hispanic                    | 203                 | 6,957                 | 42.2                | (37.5-47.1)                |
| Hispanic                               | 22                  | 2,396                 | 38.7                | (26.1-53.0)                |
| Asian/Pacific Islander, non-Hispanic   | 17                  | 1,699                 | 44.9                | (28.9-61.9)                |
| Other, non-Hispanic                    | 21                  | 2,092                 | 37.3                | (24.6-52.0)                |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 48                  | 4,137                 | 47.1                | (35.3-59.2)                |
| HS Grad/GED                            | 133                 | 9,007                 | 36.6                | (30.2-43.4)                |
| Some College                           | 134                 | 8,923                 | 32.7                | (27.3-38.7)                |
| College Degree+                        | 100                 | 8,345                 | 22.8                | (18.7-27.5)                |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 187                 | 14,122                | 25.2                | (21.6-29.1)                |
| Medicaid/Public                        | 211                 | 14,838                | 39.0                | (33.8-44.5)                |
| Uninsured                              | 7                   | 941                   | 58.2**              | (29.5-82.2)                |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 168                 | 14,821                | 25.0                | (21.5-28.9)                |
| Other                                  | 244                 | 15,456                | 40.9                | (35.7-46.3)                |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 185                 | 11,454                | 29.9                | (25.6-34.6)                |
| 1                                      | 118                 | 9,637                 | 30.2                | (24.9-36.0)                |
| 2+                                     | 113                 | 9,547                 | 35.0                | (28.9-41.7)                |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 77                  | 5,005                 | 43.1                | (33.9-52.8)                |
| \$16,001-\$24,000                      | 54                  | 2,817                 | 32.9                | (24.1-43.2)                |
| \$24,001-\$40,000                      | 66                  | 4,543                 | 32.8                | (25.2-41.5)                |
| \$40,001-\$60,000                      | 64                  | 5,663                 | 39.2                | (30.7-48.4)                |
| \$60,001+                              | 90                  | 7,853                 | 20.7                | (16.7-25.4)                |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 82. Prevalence of infant usually sleeping with toys, cushions, or pillows  
by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Total</b>                           | 69                  | 5,013                 | 5.1                 | (3.8-6.8)                  |
| <b>Maternal Age</b>                    |                     |                       |                     |                            |
| <20 Years                              |                     |                       | *                   |                            |
| 20-29 Years                            | 33                  | 2,659                 | 5.4                 | (3.5-8.1)                  |
| 30+ Years                              | 29                  | 2,041                 | 4.5                 | (2.9-6.8)                  |
| <b>Race/Ethnicity</b>                  |                     |                       |                     |                            |
| White, non-Hispanic                    | 24                  | 2,850                 | 4.4                 | (2.9-6.7)                  |
| Black, non-Hispanic                    | 34                  | 1,137                 | 6.9                 | (4.8-9.8)                  |
| Hispanic                               |                     |                       | *                   |                            |
| Asian/Pacific Islander, non-Hispanic   |                     |                       | *                   |                            |
| Other, non-Hispanic                    |                     |                       | *                   |                            |
| <b>Education</b>                       |                     |                       |                     |                            |
| <High School                           | 7                   | 561                   | 6.4**               | (2.5-15.1)                 |
| HS Grad/GED                            | 22                  | 1,294                 | 5.2**               | (2.8-9.3)                  |
| Some College                           | 20                  | 1,506                 | 5.6                 | (3.4-9.1)                  |
| College Degree+                        | 20                  | 1,652                 | 4.5                 | (2.7-7.4)                  |
| <b>Post Pregnancy Insurance Status</b> |                     |                       |                     |                            |
| Private                                | 36                  | 2,841                 | 5.1                 | (3.5-7.3)                  |
| Medicaid/Public                        | 29                  | 1,660                 | 4.4                 | (2.6-7.2)                  |
| Uninsured                              |                     |                       | *                   |                            |
| <b>Marital Status</b>                  |                     |                       |                     |                            |
| Married                                | 30                  | 2,537                 | 4.3                 | (2.9-6.4)                  |
| Other                                  | 38                  | 2,455                 | 6.4                 | (4.2-9.7)                  |
| <b>Parity</b>                          |                     |                       |                     |                            |
| No previous live birth                 | 28                  | 1,959                 | 5.1                 | (3.2-8.0)                  |
| 1                                      | 25                  | 1,585                 | 4.9                 | (3.1-7.7)                  |
| 2+                                     | 16                  | 1,469                 | 5.4                 | (2.9-9.8)                  |
| <b>Last Year's Household Income</b>    |                     |                       |                     |                            |
| <\$16,000                              | 13                  | 525                   | 4.5**               | (2.3-8.6)                  |
| \$16,001-\$24,000                      | 9                   | 513                   | 6.0**               | (2.6-13.0)                 |
| \$24,001-\$40,000                      | 8                   | 735                   | 5.3**               | (2.3-11.6)                 |
| \$40,001-\$60,000                      | 9                   | 705                   | 4.9**               | (2.2-10.7)                 |
| \$60,001+                              | 20                  | 1,826                 | 4.9                 | (3.0-7.8)                  |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 83. Prevalence of infant usually sleeping with crib bumper pads (mesh or non-mesh)  
by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 91               | 6,336              | 6.5              | (5.0-8.4)               |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              |                  |                    | *                |                         |
| 20-29 Years                            | 54               | 3,969              | 8.1              | (5.8-11.2)              |
| 30+ Years                              | 33               | 2,255              | 5.0              | (3.3-7.4)               |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 32               | 3,482              | 5.4              | (3.7-7.7)               |
| Black, non-Hispanic                    | 47               | 1,416              | 8.7              | (6.4-11.7)              |
| Hispanic                               |                  |                    | *                |                         |
| Asian/Pacific Islander, non-Hispanic   |                  |                    | *                |                         |
| Other, non-Hispanic                    |                  |                    | *                |                         |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 15               | 993                | 11.5**           | (5.8-21.6)              |
| HS Grad/GED                            | 31               | 1,952              | 7.8              | (4.9-12.3)              |
| Some College                           | 26               | 1,839              | 6.8              | (4.3-10.6)              |
| College Degree+                        | 19               | 1,552              | 4.3              | (2.5-7.1)               |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 39               | 3,002              | 5.4              | (3.7-7.7)               |
| Medicaid/Public                        | 48               | 2,994              | 7.9              | (5.4-11.5)              |
| Uninsured                              |                  |                    | *                |                         |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 40               | 3,770              | 6.4              | (4.5-9.0)               |
| Other                                  | 50               | 2,528              | 6.7              | (4.5-9.7)               |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 37               | 2,605              | 6.8              | (4.7-9.8)               |
| 1                                      | 30               | 1,955              | 6.1              | (3.9-9.5)               |
| 2+                                     | 24               | 1,776              | 6.6              | (3.9-11.1)              |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 13               | 524                | 4.5**            | (1.9-10.2)              |
| \$16,001-\$24,000                      | 11               | 423                | 4.9**            | (2.5-9.7)               |
| \$24,001-\$40,000                      | 21               | 1,704              | 12.2             | (7.3-19.6)              |
| \$40,001-\$60,000                      | 12               | 1,045              | 7.3**            | (3.6-14.2)              |
| \$60,001+                              | 21               | 1,667              | 4.4              | (2.8-7.1)               |

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 84. Prevalence of infant usually sleeping on his or her back^ by maternal characteristics, MI PRAMS, 2021**

| Characteristic                         | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Total</b>                           | 1,094            | 86,102             | 86.5             | (84.3-88.5)             |
| <b>Maternal Age</b>                    |                  |                    |                  |                         |
| <20 Years                              | 31               | 2,288              | 76.2             | (60.9-86.8)             |
| 20-29 Years                            | 537              | 41,550             | 83.4             | (79.8-86.5)             |
| 30+ Years                              | 526              | 42,265             | 90.4             | (87.6-92.7)             |
| <b>Race/Ethnicity</b>                  |                  |                    |                  |                         |
| White, non-Hispanic                    | 572              | 60,277             | 91.3             | (88.6-93.5)             |
| Black, non-Hispanic                    | 365              | 12,068             | 71.5             | (67.0-75.6)             |
| Hispanic                               | 50               | 4,516              | 72.9             | (58.2-83.9)             |
| Asian/Pacific Islander, non-Hispanic   |                  |                    | *                |                         |
| Other, non-Hispanic                    | 65               | 5,051              | 87.4**           | (76.2-93.7)             |
| <b>Education</b>                       |                  |                    |                  |                         |
| <High School                           | 92               | 6,871              | 76.0             | (65.1-84.4)             |
| HS Grad/GED                            | 279              | 21,010             | 82.7             | (77.7-86.8)             |
| Some College                           | 330              | 23,656             | 86.4             | (81.9-89.9)             |
| College Degree+                        | 390              | 34,253             | 91.8             | (88.6-94.2)             |
| <b>Post Pregnancy Insurance Status</b> |                  |                    |                  |                         |
| Private                                | 595              | 52,070             | 91.4             | (88.9-93.3)             |
| Medicaid/Public                        | 462              | 31,377             | 80.6             | (76.3-84.3)             |
| Uninsured                              | 10               | 1,008              | 62.3**           | (32.7-84.9)             |
| <b>Marital Status</b>                  |                  |                    |                  |                         |
| Married                                | 606              | 53,906             | 89.2             | (86.3-91.5)             |
| Other                                  | 482              | 31,627             | 82.3             | (78.4-85.7)             |
| <b>Parity</b>                          |                  |                    |                  |                         |
| No previous live birth                 | 438              | 33,079             | 84.6             | (81.1-87.6)             |
| 1                                      | 341              | 28,673             | 88.2             | (84.1-91.3)             |
| 2+                                     | 313              | 24,223             | 87.3             | (82.4-91.0)             |
| <b>Last Year's Household Income</b>    |                  |                    |                  |                         |
| <\$16,000                              | 157              | 8,981              | 76.0             | (67.2-83.0)             |
| \$16,001-\$24,000                      | 114              | 7,187              | 83.5             | (75.7-89.1)             |
| \$24,001-\$40,000                      | 153              | 11,719             | 82.4             | (74.8-88.0)             |
| \$40,001-\$60,000                      | 146              | 12,780             | 86.8             | (80.1-91.5)             |
| \$60,001+                              | 399              | 35,992             | 93.7             | (90.9-95.7)             |

^Sleeping on the back meant that respondent reported that they placed the baby to sleep on its back exclusively. Mothers reporting that their baby slept primarily on its stomach, side, or any combination of sleep positions including a non-back response are not counted among exclusive back-sleepers.

\*Data not shown due to small sample size and/or relative standard error > 50%.

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 85. Prevalence of life stressors experienced by mothers in 12 months before delivery, MI PRAMS, 2021**

|  | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Life Stressors (non-exclusive)</b>  |                     |                       |                     |                            |
| I moved to a new address   | 387                 | 27,557                | 27.3                | (24.5-30.3)                |
| A close family member was very sick and had to go to the hospital                            | 359                 | 26,152                | 26.0                | (23.2-29.0)                |
| My husband, partner, or I had a cut in work hours or pay                                     | 327                 | 22,341                | 22.2                | (19.6-25.0)                |
| Someone very close to me died  | 330                 | 21,769                | 21.7                | (19.2-24.5)                |
| I argued with my husband or partner more than usual  | 292                 | 17,950                | 17.9                | (15.6-20.4)                |
| I had problems paying the rent, mortgage, or other bills                                     | 224                 | 14,065                | 14.0                | (11.9-16.4)                |
| I lost my job even though I wanted to go on working  | 213                 | 13,379                | 13.3                | (11.2-15.6)                |
| I had to live with a friend or family member   | 181                 | 11,516                | 11.4                | (9.5-13.7)                 |
| Someone very close to me had a problem with drinking or drugs                                | 144                 | 10,595                | 10.6                | (8.7-12.8)                 |
| My husband or partner lost his job   | 161                 | 9,923                 | 9.9                 | (8.1-11.9)                 |
| I got divorced or separated from my husband or partner                                       | 90                  | 5,890                 | 5.8                 | (4.5-7.6)                  |
| My husband or partner said he didn't want me to be pregnant                                  | 89                  | 5,223                 | 5.2                 | (4.0-6.8)                  |
| I was homeless or had to sleep outside, in a car, or in a shelter                            | 40                  | 2,355                 | 2.3                 | (1.6-3.5)                  |
| My husband, partner, or I went to jail   | 40                  | 2,141                 | 2.1                 | (1.4-3.2)                  |
| I was apart from my husband or partner because of deployment or extended work-related travel | 27                  | 1,708                 | 1.7                 | (1.1-2.7)                  |

**Table 86. Cumulative number of life stressors experienced by mothers in 12 months before delivery, MI PRAMS, 2021**

|    | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|----|------------------|--------------------|------------------|-------------------------|
| 0  | 373              | 30,452             | 30.1             | (27.2-33.2)             |
| 1  | 268              | 21,360             | 21.1             | (18.6-23.9)             |
| 2  | 254              | 19,480             | 19.3             | (16.8-22.0)             |
| 3  | 178              | 12,428             | 12.3             | (10.3-14.6)             |
| 4  | 97               | 6,040              | 6.0              | (4.7-7.6)               |
| 5  | 86               | 5,227              | 5.2              | (3.9-6.8)               |
| 6  | 43               | 2,030              | 2.0              | (1.3-3.0)               |
| 7  | 28               | 2,022              | 2.0              | (1.2-3.3)               |
| 8+ | 36               | 2,057              | 2.9              | (1.9-4.4)               |

**Table 87. Prevalence of unmet basic needs during pregnancy, MI PRAMS, 2021**

| Unmet basic need   | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| <b>Types (non-exclusive)</b>   |                  |                    |                  |                         |
| House or apartment was too crowded                                   | 93               | 5,821              | 5.9              | (4.5-7.6)               |
| Did not have affordable, reliable transportation                     | 83               | 5,171              | 5.2              | (3.9-6.8)               |
| Could not keep basic utility services on (heat, water, light)        | 74               | 4,082              | 4.1              | (3.0-5.6)               |
| Did not have consistent housing                                      | 55               | 3,641              | 3.7              | (2.6-5.1)               |
| Skipped meals or ate less because there wasn't enough money for food | 56               | 3,522              | 3.5              | (2.5-4.9)               |
| Did not have safe housing  | 50               | 2,595              | 2.6              | (1.8-3.7)               |
| Could not access a telephone when needed                             | 28               | 1,906              | 1.9              | (1.2-3.0)               |
| Other unmet needs  | 54               | 2,964              | 3.3              | (2.3-4.7)               |

**Table 88. Cumulative number of unmet basic needs during pregnancy, MI PRAMS, 2021**

|      | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|------|------------------|--------------------|------------------|-------------------------|
| None | 1,044            | 81,465             | 81.4             | (78.8-83.8)             |
| 1    | 199              | 12,195             | 12.2             | (10.2-14.5)             |
| 2    | 66               | 3,679              | 3.7              | (2.7-5.0)               |
| 3    | 21               | 1,483              | 1.5              | (0.9-2.6)               |
| 4+   | 22               | 1,219              | 1.2              | (0.7-2.1)               |

**Table 89. Prevalence of any physical violence 12 months before or during pregnancy,  
MI PRAMS, 2021**

| Time period of abuse   | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| Abuse either 12 months before conception or during pregnancy | 78                  | 4,827                 | 4.8                 | (3.6-6.4)                  |
| Abuse 12 months before conception                            | 62                  | 3,686                 | 3.6                 | (2.6-5.1)                  |
| Abuse during pregnancy                                       | 48                  | 3,015                 | 3.0                 | (2.0-4.3)                  |

**Table 90. Perpetrator of abuse 12 months before conception,  
MI PRAMS, 2021**

| Person who abused mother | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--------------------------|---------------------|-----------------------|---------------------|----------------------------|
| Husband/partner          | 28                  | 1,443                 | 1.4                 | (0.9-2.4)                  |
| Ex-husband/partner       | 24                  | 1,387                 | 1.4**               | (0.8-2.3)                  |
| Another family member    | 11                  | 682                   | 0.7**               | (0.3-1.6)                  |
| Someone else             | 8                   | 514                   | 0.5**               | (0.2-1.3)                  |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 91. Perpetrator of abuse during pregnancy,  
MI PRAMS, 2021**

| Person who abused mother | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--------------------------|---------------------|-----------------------|---------------------|----------------------------|
| Husband/partner          | 24                  | 1,377                 | 1.4                 | (0.8-2.3)                  |
| Ex-husband/partner       | 12                  | 521                   | 0.5**               | (0.3-1.0)                  |
| Another family member    | 13                  | 859                   | 0.9**               | (0.4-1.9)                  |
| Someone else             | 7                   | 602                   | 0.6**               | (0.2-1.6)                  |

\*\*Relative standard error (RSE) exceeds 30%. Interpret with caution.

**Table 92. Prevalence of maternal adverse childhood experiences,  
MI PRAMS, 2021**

| <b>Adverse Childhood Experience</b>  | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Types (non-exclusive)</b>   |                             |                               |                             |                                    |
| A parent or guardian I lived with got divorced or separated                                      | 479                         | 35,699                        | 35.9                        | (32.8-39.1)                        |
| A parent or guardian I lived with had a serious drinking or drug problem                         | 237                         | 18,219                        | 18.5                        | (16.0-21.2)                        |
| We had to move because of trouble paying the rent or mortgage                                    | 222                         | 15,015                        | 15.2                        | (12.9-17.7)                        |
| A parent or guardian got in trouble with the law or went to jail                                 | 219                         | 14,839                        | 15.0                        | (12.8-17.6)                        |
| Most of the time, I did not have an adult who believed in me and who I could count on to help me | 131                         | 8,467                         | 8.5                         | (6.9-10.5)                         |
| Someone in my family or I went hungry because we could not afford enough food                    | 108                         | 7,284                         | 7.3                         | (5.8-9.2)                          |
| I was in foster care (removed from home by court or child welfare)                               | 81                          | 5,309                         | 5.4                         | (4.0-7.1)                          |

**Table 93. Cumulative number of maternal adverse childhood experiences,  
MI PRAMS, 2021**

|      | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| None | 628                         | 50,698                        | 50.8                        | (47.5-54.1)                        |
| 1    | 337                         | 21,685                        | 21.7                        | (19.2-24.5)                        |
| 2    | 171                         | 12,629                        | 12.7                        | (10.6-15.0)                        |
| 3    | 95                          | 6,724                         | 6.7                         | (5.2-8.6)                          |
| 4+   | 110                         | 8,067                         | 8.1                         | (6.4-10.2)                         |

**Table 94. From childhood through age 13 how often did mother's family have difficulty paying  
for basic needs like food and housing, MI PRAMS, 2021**

|                | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|----------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Very often     | 69                          | 4,616                         | 4.6                         | (3.4-6.2)                          |
| Somewhat often | 160                         | 12,192                        | 12.3                        | (10.2-14.7)                        |
| Not very often | 368                         | 27,460                        | 27.6                        | (24.7-30.7)                        |
| Never          | 735                         | 55,169                        | 55.5                        | (52.2-58.7)                        |



## Notes on Maternal Resilience

This resilience scale was created and tested by Bruce Smith and colleagues ("The Brief Resilience Scale: Assessing the Ability to Bounce Back." International Journal of Behavioral Medicine, 2008). Half of the questions on PRAMS were asked in the affirmative - an answer of "YES" indicated that a mother typically had a positive response to a stressful life event. The other half of the questions were asked in the negative. For these questions, an answer of "NO" meant that a mother usually did not have a negative response to a stressful situation.

In order to calculate an individual's cumulative number of positive responses to stress and to provide a basic summary "resilience score," all survey questions in the table below have been converted to positive language. Respondents with a resilience score of 6 report that most of the time they handle stressful situations well. Respondents with a resilience score of 0 report that they typically respond poorly to stressful life situations.

**Table 95. Positive responses to stressful events,  
MI PRAMS, 2021**

| Stressful event response                                      | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|---|------------------|--------------------|------------------|-------------------------|
| I do not take a long time to get over setbacks in my life     | 1,221            | 91,571             | 91.3             | (89.3-93.0)             |
| It is not hard for me to snap back when something bad happens | 1,154            | 85,450             | 85.3             | (82.8-87.5)             |
| I do not have a hard time making it through stressful events  | 1,139            | 85,232             | 85.2             | (82.7-87.4)             |
| I tend to bounce back quickly after hard times                | 940              | 66,419             | 66.4             | (63.2-69.5)             |
| It does not take me long to recover from a stressful event    | 683              | 51,777             | 51.8             | (48.5-55.1)             |
| I usually come through a difficult time with little trouble   | 661              | 49,561             | 49.5             | (46.2-52.8)             |

**Table 96. Cumulative number of positive responses to stressful life events,  
MI PRAMS, 2021**

| Number of positive responses to stressful situations | Sample Frequency | Weighted Frequency | Weighted Percent | 95% Confidence Interval |
|--|------------------|--------------------|------------------|-------------------------|
| 0-3  | 279              | 20,991             | 20.9             | (18.3-23.7)             |
| 4  | 451              | 34,454             | 34.3             | (31.2-37.5)             |
| 5  | 266              | 18,583             | 18.5             | (16.1-21.1)             |
| 6  | 356              | 26,417             | 26.3             | (23.5-29.3)             |

**Table 97. Post-partum checkup for mother,  
MI PRAMS, 2021**

|     | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|-----|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Yes | 1,172                       | 87,683                        | 87.5                        | (85.0-89.6)                        |
| No  | 181                         | 12,579                        | 12.5                        | (10.4-15.0)                        |

**Table 98. Prevalence of health care provider discussions and actions taken during postpartum checkup,  
MI PRAMS, 2021**

|  | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Discussion or Action (non-exclusive)</b>                          |                             |                               |                             |                                    |
| Ask if feeling down or depressed                                     | 1,070                       | 80,059                        | 91.9                        | (89.7-93.6)                        |
| Discuss birth control methods  | 1,016                       | 75,897                        | 87.0                        | (84.4-89.3)                        |
| Ask if taking other prescriptions<br>medications                     | 849                         | 62,417                        | 71.8                        | (68.6-74.9)                        |
| Ask about current emotional or physical<br>abuse                     | 836                         | 59,679                        | 68.7                        | (65.3-71.8)                        |
| Ask if smoking cigarettes  | 749                         | 54,082                        | 62.4                        | (58.9-65.7)                        |
| Discuss healthy eating, exercise and<br>losing pregnancy weight gain | 641                         | 45,770                        | 52.4                        | (48.9-55.9)                        |
| Ask if drinking alcohol  | 665                         | 45,398                        | 52.3                        | (48.8-55.8)                        |
| Discuss how long to wait to get pregnant<br>again                    | 640                         | 45,265                        | 52.0                        | (48.5-55.5)                        |
| Advise to take folic acid  | 527                         | 40,042                        | 46.1                        | (42.6-49.6)                        |
| Give or prescribe hormonal or barrier<br>contraceptives              | 430                         | 29,190                        | 33.6                        | (30.4-36.9)                        |
| Ask if taking prescription opioids                                   | 421                         | 26,795                        | 30.9                        | (27.9-34.2)                        |
| Test for diabetes  | 272                         | 16,829                        | 19.5                        | (17.0-22.3)                        |
| Insert an IUD  | 179                         | 12,821                        | 14.8                        | (12.5-17.5)                        |

**Table 99. Post-partum depression symptoms,  
MI PRAMS, 2021**

| <b>Experience</b>   | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|---|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Since new baby was born, proportion of<br/>mothers reporting...</b>      |                             |                               |                             |                                    |
| <i>Feeling down, depressed, or hopeless</i>                                 |                             |                               |                             |                                    |
| Never   | 423                         | 30,644                        | 30.6                        | (27.7-33.7)                        |
| Rarely  | 442                         | 34,628                        | 34.6                        | (31.5-37.8)                        |
| Sometimes   | 335                         | 24,698                        | 24.7                        | (21.9-27.6)                        |
| Often   | 121                         | 8,564                         | 8.6                         | (6.9-10.6)                         |
| Always  | 27                          | 1,608                         | 1.6                         | (1.0-2.6)                          |
| <i>Having little or no pleasure in doing things</i>                         |                             |                               |                             |                                    |
| Never   | 490                         | 36,661                        | 36.7                        | (33.6-39.9)                        |
| Rarely  | 368                         | 29,775                        | 29.8                        | (26.9-32.9)                        |
| Sometimes   | 307                         | 21,472                        | 21.5                        | (18.9-24.3)                        |
| Often   | 133                         | 8,917                         | 8.9                         | (7.3-10.9)                         |
| Always  | 48                          | 3,137                         | 3.1                         | (2.2-4.5)                          |
| <b>Mothers reporting significant post-partum<br/>depression<sup>^</sup></b> | 244                         | 16,446                        | 16.5                        | (14.2-19.0)                        |

<sup>^</sup>This measure is a composite of the previous two questions. If a mother reported either of these statements to be true for her on average often or always, she was coded as demonstrating significant post-partum depression.

**Table 100. Maternal immunization before and during pregnancy,  
MI PRAMS, 2021**

| <b>Maternal Immunization</b> | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|------------------------------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Flu Shot</b>              |                             |                               |                             |                                    |
| No                           | 718                         | 47,718                        | 47.5                        | (44.3-50.8)                        |
| Yes, before pregnancy        | 171                         | 13,994                        | 13.9                        | (11.8-16.4)                        |
| Yes, during pregnancy        | 464                         | 38,667                        | 38.5                        | (35.4-41.8)                        |
| <b>Tdap</b>                  |                             |                               |                             |                                    |
| No                           | 408                         | 26,624                        | 26.3                        | (23.5-29.2)                        |
| Yes                          | 888                         | 70,024                        | 69.1                        | (66.1-72.0)                        |
| I don't know                 | 69                          | 4,685                         | 4.6                         | (3.5-6.2)                          |

**Table 101. Plans for future infant immunization,  
MI PRAMS, 2021**

| <b>Immunization Plans</b>                | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| As doctor recommends                     | 986                         | 78,220                        | 80.2                        | (77.5-82.6)                        |
| All vaccines but on a different schedule | 78                          | 5,778                         | 5.9                         | (4.5-7.7)                          |
| Only some vaccines                       | 159                         | 9,585                         | 9.8                         | (8.1-11.9)                         |
| No vaccines planned                      | 72                          | 3,972                         | 4.1                         | (3.0-5.4)                          |

**Table 102. Average amount of maternal sleep each night in the last week,  
MI PRAMS, 2021**

| Quantity (hours) | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|------------------|---------------------|-----------------------|---------------------|----------------------------|
| 0-3              | 104                 | 5,892                 | 6.0                 | (4.7-7.6)                  |
| 4-6              | 738                 | 55,124                | 55.9                | (52.6-59.2)                |
| 7-8              | 424                 | 34,504                | 35.0                | (31.9-38.2)                |
| 9+               | 38                  | 3,101                 | 3.1                 | (2.1-4.6)                  |

**Table 103. Average number of times mother awoke each night in the last week,  
MI PRAMS, 2021**

| Number of awakenings | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|----------------------|---------------------|-----------------------|---------------------|----------------------------|
| 0-1                  | 261                 | 23,120                | 23.8                | (21.0-26.8)                |
| 2                    | 421                 | 32,648                | 33.6                | (30.5-36.8)                |
| 3                    | 333                 | 23,311                | 24.0                | (21.2-26.9)                |
| 4+                   | 275                 | 18,211                | 18.7                | (16.3-21.4)                |

**Table 104. Partner living arrangement with mother,  
MI PRAMS, 2021**

| Living arrangement                     | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|--|---------------------|-----------------------|---------------------|----------------------------|
| <b>Types (exclusive)</b>               |                     |                       |                     |                            |
| Partner lives with me all the time     | 1,032               | 84,517                | 85.0                | (82.8-87.0)                |
| Partner lives with me some of the time | 61                  | 3,572                 | 3.6                 | (2.6-5.0)                  |
| Partner does not live with me          | 110                 | 5,297                 | 5.3                 | (4.1-6.8)                  |
| I do not have a husband or partner     | 131                 | 6,046                 | 6.1                 | (4.8-7.6)                  |

**Table 105. Ways that husband or partner supports mother,  
MI PRAMS, 2021**

| Support of mother   | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|---|---------------------|-----------------------|---------------------|----------------------------|
| <b>Types (non-exclusive)</b>  |                     |                       |                     |                            |
| My partner is someone who helps me care for my child(ren)                   | 1,146               | 89,677                | 96.7                | (95.2-97.8)                |
| My partner is someone whom I can count on                                   | 1,119               | 88,054                | 95.3                | (93.8-96.5)                |
| My partner is someone who does things with me                               | 1,115               | 88,207                | 95.2                | (93.5-96.4)                |
| My partner is someone who talks with me and spends time with me             | 1,111               | 87,906                | 94.4                | (92.7-95.8)                |
| My partner is someone who is affectionate toward me                         | 1,113               | 87,592                | 94.4                | (92.7-95.8)                |
| My partner is someone I can count on for financial support if I need it     | 1,107               | 88,128                | 94.1                | (92.5-95.4)                |
| My partner is someone I can talk with about things that are important to me | 1,100               | 87,000                | 94.1                | (92.3-95.5)                |
| My partner is someone who understands how I am feeling                      | 1,023               | 80,953                | 87.5                | (85.1-89.6)                |

**Note:** The denominator for this item is limited to those who answered that they had a husband or partner, and excludes those who say they did not have a husband or partner.

**Table 106. Cumulative number of ways that husband or partner supports mother,  
MI PRAMS, 2021**

|     | Sample<br>Frequency | Weighted<br>Frequency | Weighted<br>Percent | 95% Confidence<br>Interval |
|-----|---------------------|-----------------------|---------------------|----------------------------|
| 0-2 | 57                  | 3,048                 | 3.3                 | (2.3-4.7)                  |
| 3-5 | 64                  | 4,662                 | 5.0                 | (3.7-6.7)                  |
| 6-7 | 138                 | 10,240                | 10.9                | (9.0-13.3)                 |
| 8   | 949                 | 75,684                | 80.8                | (78.0-83.4)                |

**Table 107. People available to help watch baby,  
MI PRAMS, 2021**

| <b>Infant caretakers</b>                       | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|--|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| <b>Caretakers (non-exclusive)</b>              |                             |                               |                             |                                    |
| Husband/Partner                                | 971                         | 74,985                        | 75.3                        | (72.3-78.1)                        |
| Baby's grandparent                             | 853                         | 64,758                        | 65.0                        | (61.8-68.1)                        |
| Other close family member/relative             | 438                         | 30,253                        | 30.4                        | (27.5-33.5)                        |
| Babysitter, nanny, or other childcare provider | 130                         | 11,129                        | 11.2                        | (9.2-13.5)                         |
| Friend or neighbor                             | 115                         | 8,692                         | 8.7                         | (7.0-10.8)                         |
| Staff at day care center                       | 88                          | 7,397                         | 7.4                         | (5.9-9.4)                          |
| Other  | 31                          | 2,952                         | 3.0                         | (1.9-4.5)                          |
| Baby always with mom                           | 191                         | 13,767                        | 13.8                        | (11.7-16.3)                        |

**Table 108. Cumulative number of infant caretakers,  
MI PRAMS, 2021**

|      | <b>Sample<br/>Frequency</b> | <b>Weighted<br/>Frequency</b> | <b>Weighted<br/>Percent</b> | <b>95% Confidence<br/>Interval</b> |
|------|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| None | 85                          | 6,801                         | 6.8                         | (5.3-8.8)                          |
| 1    | 376                         | 26,165                        | 26.3                        | (23.5-29.3)                        |
| 2    | 459                         | 35,791                        | 35.9                        | (32.8-39.2)                        |
| 3    | 305                         | 22,992                        | 23.1                        | (20.4-26.0)                        |
| 4+   | 98                          | 7,819                         | 7.9                         | (6.2-9.8)                          |

## APPENDIX

### Comparison of MI PRAMS 2021 Data Tables to MI PRAMS 2015 Data Tables

| MI PRAMS 2021 Table  | MI PRAMS 2015 Table   |
|--|---|
| Table 1. Distribution of selected maternal characteristics   | Table 1. Distribution of selected maternal characteristics  |
| Table 2. Distribution of pre-pregnancy maternal body mass index categories   | Table 2. Distribution of pre-pregnancy maternal body mass index categories  |
| Table 3. Prevalence of pre-pregnancy underweight BMI by maternal characteristics   | Table 3. Prevalence of pre-pregnancy underweight BMI by maternal characteristics                                    |
| Table 4. Prevalence of pre-pregnancy normal weight BMI by maternal characteristics   | Table 4. Prevalence of pre-pregnancy normal weight BMI by maternal characteristics                                  |
| Table 5. Prevalence of pre-pregnancy overweight BMI by maternal characteristics  | Table 5. Prevalence of pre-pregnancy overweight BMI by maternal characteristics                                     |
| Table 6. Prevalence of pre-pregnancy obese BMI by maternal characteristics   | Table 6. Prevalence of pre-pregnancy obese BMI by maternal characteristics  |
| Table 7. Prevalence of maternal health problems during the 3 months before pregnancy   | Table 7. Prevalence of selected maternal health problems during the 3 months before pregnancy                       |
| Table 8.** Prevalence of health care visits in the year before pregnancy - including dental or mental health - with a doctor, nurse, or other healthcare worker by maternal characteristics<br>**New topic on Phase 8 survey |   |
| Table 9**. Type of healthcare visits among women in the 12 months before pregnancy<br>**New topic on Phase 8 survey  |   |
| Table 10**. Type of counseling/screening among women reporting any healthcare visits in the 12 months before pregnancy<br>**New topic on Phase 8 survey  |   |
| Table 11.^ Frequency of taking a folate-containing vitamin in the month before pregnancy<br>^ Topic available but not reported in Phase 7 tables   |   |
| Table 12.^ Prevalence of no folic acid containing vitamin consumption in the month before pregnancy by maternal characteristics<br>^ Topic available but not reported in Phase 7 tables                                      |   |
| Table 13. Distribution of pregnancy intention categories   | Table 11. Distribution of pregnancy intention categories  |
| Table 14. Distribution of unintended pregnancy subtypes among women reporting either unsure or unintended pregnancy  | Table 12. Distribution of unintended pregnancy subtypes among women reporting either unsure or unintended pregnancy |
| Table 15. Prevalence of unintended pregnancy by maternal characteristics   | Table 13. Prevalence of unintended pregnancy by maternal characteristics  |



| MI PRAMS 2021 Table   | MI PRAMS 2015 Table  |
|---|--|
| Table 16.^ Distribution of contraceptive behaviors at the time of conception<br><i>^^ Topic available in Phase 6 Survey</i>   |  |
| Table 17. Characteristics of women trying to conceive during the pre-pregnancy period   | Table 14. Characteristics of women trying to conceive during the pre-pregnancy periods   |
| Table 18. Characteristics of women who became pregnant despite using contraceptive practices  | Table 15. Prevalence of women who became pregnant despite using contraceptive practices  |
| Table 19. ^^ Prevalence of contraception methods used by women who became pregnant despite using contraceptive practices<br><i>^^Topic available in Phase 6 Survey</i>        |  |
| Table 20. Prevalence of women who were not trying to conceive but were not doing anything to prevent pregnancy by maternal characteristics                                    | Table 16. Prevalence of women who were not trying to conceive but were not doing anything to prevent pregnancy by maternal characteristics |
| Table 21. Reasons women who were not trying to conceive - but were not doing anything to prevent pregnancy - did not use contraception  | Table 17. Reasons women who were not trying to conceive but were not doing anything to prevent pregnancy did not use contraception         |
| Table 22. Prevalence of using any postpartum contraceptive method by maternal characteristics   | Table 18. Prevalence of using any postpartum pregnancy prevention method by maternal characteristics                                       |
| Table 23. Prevalence of postpartum contraceptive methods  | Table 19. Prevalence of postpartum contraceptive methods   |
| Table 24.^ Prevalence of no postpartum contraceptive methods by maternal characteristics<br><i>^ Topic available but not reported in Phase 7 tables</i>                       |  |
| Table 25. Reasons for not using any postpartum contraception  | Table 20. Reasons for not using postpartum contraceptive methods   |
| Table 26. Trimester of entry into prenatal care   | Table 21. Trimester of entry into prenatal care  |
| Table 29. Prevalence of getting prenatal care as early as wanted  | Table 22. Prevalence of getting prenatal care as early as wanted   |
| Table 30. Prevalence of getting prenatal care as early as wanted by first trimester entry into prenatal care<br><i>^ Topic available but not reported in Phase 7 tables</i>   |  |
| Table 31.^ Barriers to starting prenatal care as early as wanted among women who began prenatal care during the first trimester<br><i>^^Topic available in Phase 6 survey</i> |  |
| Table 32.^ Barriers to starting prenatal care as early as wanted among women who began prenatal care after the first trimester<br><i>^^Topic available in Phase 6 survey</i>  |  |
| Table 33**. Prevalence of topics discussed by health care provider during prenatal care visits<br><i>**New topic on Phase 8 survey</i>  |  |

| MI PRAMS 2021 Table   | MI PRAMS 2015 Table   |
|---|---|
| Table 34**. Prevalence of Pregnancy Complications<br><i>**New topic on Phase 8 survey</i>   |   |
| Table 35. Prevalence of smoking during the 3 months before pregnancy by maternal characteristics  |   |
| Table 36. Prevalence of smoking during the last 3 months of pregnancy by maternal characteristics   | Table 30. Prevalence of smoking during the last three months of pregnancy by maternal characteristics |
| Table 37^. Prevalence of smoking after pregnancy by maternal characteristics<br><i>^ Topic available but not reported in Phase 7 tables</i>                   |   |
| Table 38**. Prevalence of electronic cigarette usage during the 3 months before pregnancy by maternal characteristics<br><i>**New topic on Phase 8 survey</i> |   |
| Table 39**. Prevalence of electronic cigarette usage during the last 3 months of pregnancy<br><i>**New topic on Phase 8 survey</i>                            |   |
| Table 40**. Prevalence of hookah usage in 2 years before survey completion by maternal characteristics<br><i>**New topic on Phase 8 survey</i>                |   |
| Table 41**. Prevalence of marijuana or hash usage in 12 months before pregnancy by maternal characteristics<br><i>**New topic on Phase 8 survey</i>           |   |
| Table 42**. Prevalence of marijuana or hash usage during pregnancy by maternal characteristics<br><i>**New topic on Phase 8 survey</i>                        |   |
| Table 43**. Prevalence of marijuana or hash usage after pregnancy by maternal characteristics<br><i>**New topic on Phase 8 survey</i>                         |   |
| Table 44**. Prevalence of opioid pain reliever usage in 12 months before pregnancy by maternal characteristics<br><i>**New topic on Phase 8 survey</i>        |   |
| Table 45**. Prevalence of opioid pain reliever usage during pregnancy by maternal characteristics<br><i>**New topic on Phase 8 survey</i>                     |   |
| Table 46**. Prevalence of opioid pain reliever usage after pregnancy by maternal characteristics<br><i>**New topic on Phase 8 survey</i>                      |   |
| Table 47. Distribution of delivery methods  | Table 31. Distribution of delivery methods  |
| Table 48. Prevalence of low birthweight by maternal characteristics   | Table 33. Prevalence of low birthweight by maternal characteristics                                   |

| MI PRAMS 2021 Table  | MI PRAMS 2015 Table   |
|--|---|
| Table 49. Distribution of low birthweight subcategories among low birthweight infants  | Table 34. Distribution of low birthweight subcategories among low birthweight infants           |
| Table 50. Prevalence of low birthweight by smoking status during last three months of pregnancy  | Table 35. Prevalence of low birthweight by smoking status during last three months of pregnancy |
| Table 51 <sup>^</sup> . Prevalence of high birthweight by maternal characteristics<br><sup>^</sup> <i>Topic available, but not reported in Phase 7 tables</i>                          | Table 36. Prevalence of high birthweight by maternal characteristics                            |
| Table 52 <sup>^</sup> . Prevalence of high birthweight by diabetes before pregnancy or gestational diabetes<br><sup>^</sup> <i>Topic available, but not reported in Phase 7 tables</i> |   |
| Table 53. Distribution of infant birthweights and gestational ages   | Table 39. Distribution of infant birthweights and gestational ages                              |
| Table 54. Prevalence of preterm birth by maternal characteristics  | Table 38. Prevalence of preterm birth by maternal characteristics                               |
| Table 55 <sup>^</sup> . Breastfeeding duration categories<br><sup>^</sup> <i>Topic available, but not reported in Phase 7 tables</i>   |   |
| Table 56 <sup>**</sup> . Reasons for not initiating breastfeeding<br><sup>**</sup> <i>New topic on Phase 8 survey</i>  |   |
| Table 57 <sup>**</sup> . Cumulative number of reasons for not initiating breastfeeding<br><sup>**</sup> <i>New topic on Phase 8 survey</i>   |   |
| Table 58. Prevalence of breastfeeding initiation by maternal characteristics   | Table 40. Prevalence of breastfeeding initiation by maternal characteristics                    |
| Table 59 <sup>^</sup> . Prevalence of 1-month breastfeeding duration by maternal characteristics<br><sup>^</sup> <i>Topic available, but not reported in Phase 7 tables</i>            |   |
| Table 60. <sup>^</sup> Prevalence of 2-month breastfeeding duration by maternal characteristics<br><sup>^</sup> <i>Topic available, but not reported in Phase 7 tables</i>             |   |
| Table 61 <sup>^</sup> . Prevalence of 3-month breastfeeding duration by maternal characteristics<br><sup>^</sup> <i>Topic available, but not reported in Phase 7 tables</i>            |   |
| Table 62 <sup>*</sup> . Reasons for stopping breastfeeding<br><sup>*</sup> <i>Direct comparison not possible between survey phases</i>   | Table 43. Reasons for stopping breastfeeding  |
| Table 63 <sup>**</sup> . Breastfeeding information sources before or after delivery<br><sup>**</sup> <i>New topic on Phase 8 survey</i>  |   |
| Table 64 <sup>**</sup> . Total number of breastfeeding information sources<br><sup>**</sup> <i>New topic on Phase 8 survey</i>   |   |

| MI PRAMS 2021 Table   | MI PRAMS 2015 Table   |
|---|---|
| Table 65**. Did mother ever use a breast pump<br><i>**New topic on Phase 8 survey</i>   |   |
| Table 66**. Source of breast pump<br><i>**New topic on Phase 8 survey</i>   |   |
| Table 67**. Prevalence of ever using a breast pump by maternal characteristics<br><i>**New topic on Phase 8 survey</i>  |   |
| Table 68**. Baby health indicators<br><i>**New topic on phase 8 survey</i>  |   |
| Table 69. Distribution of WIC status during pregnancy,  | Table 44. Distribution of WIC status during pregnancy   |
| Table 70**. How often infant slept alone in his/her own bed over last two weeks<br><i>**New topic on Phase 8 survey</i>   |   |
| Table 71**. Infant slept in his/her own crib or bed in mother's room<br><i>**New topic on Phase 8 survey</i>  |   |
| Table 72*^. Infant sleep space characteristics<br><i>*Direct comparison not possible between survey phases</i><br><i>^Topic available, but not reported in Phase 7 tables</i>                               |   |
| Table 73. Primary infant sleep position   | Table 45. Primary infant sleep position   |
| Table 74*. Prevalence of infant always or often sleeping alone in his/her own crib or bed in the last two weeks by maternal characteristics<br><i>*Direct comparison not possible between survey phases</i> | Table 52. Prevalence of infant usually sleeping with mother or another person by maternal characteristics |
| Table 75**. Prevalence of infant sleeping alone in his/her own crib or bed in the same room as mother by maternal characteristics<br><i>**New topic on Phase 8 survey</i>                                   |   |
| Table 76.* Prevalence of infant usually sleeping in a crib by maternal characteristics<br><i>*Direct comparison not possible between survey phases</i>  | Table 48. Prevalence of infant usually sleeping on a crib by maternal characteristics                     |
| Table 77.* Prevalence of infant usually sleeping on an adult-sized mattress by maternal characteristics<br><i>*Direct comparison not possible between survey phases</i>                                     | Table 49. Prevalence of infant usually sleeping on a firm mattress by maternal characteristics            |
| Table 78**. Prevalence of infant usually sleeping on a couch, sofa, or armchair by maternal characteristics<br><i>**New topic on Phase 8 survey</i>   |   |
| Table 79**. Prevalence of infant usually sleeping in an infant car seat or swing by maternal characteristics<br><i>**New topic on Phase 8 survey</i>  |   |
| Table 80**. Prevalence of infant usually sleeping in a sleep sack or wearable blanket by maternal characteristics   |   |

| MI PRAMS 2021 Table   | MI PRAMS 2015 Table   |
|---|---|
| <b>**New topic on Phase 8 survey</b>  |   |
| Table 81.* Prevalence of infant usually sleeping with a blanket by maternal characteristics<br><i>*Direct comparison not possible between survey phases</i>   | Table 51. Prevalence of infant usually sleeping with blankets by maternal characteristics |
| Table 82*^ . Prevalence of infant usually sleeping with toys, cushions, or pillows by maternal characteristics<br><i>*Direct comparison not possible between survey phases</i><br><i>^Topic available, but not reported in Phase 7 tables</i> |   |
| Table 83.* Prevalence of infant usually sleeping with crib bumper pads (mesh or non-mesh) by maternal characteristics<br><i>*Direct comparison not possible between survey phases</i>   | Table 50. Prevalence of infant sleeping with bumper pads by maternal characteristics      |
| Table 84. Prevalence of infant usually sleeping on his or her back by maternal characteristics  | Table 46. Prevalence of infant back sleeping position by maternal characteristics         |
| Table 85. Prevalence of life stressors experienced by mothers in 12 months before delivery  | Table 53. Prevalence of life stressors experienced by mothers                             |
| Table 86. Cumulative number of life stressors experienced by mothers in 12 months before delivery   | Table 54. Number of life stressors experienced by mothers                                 |
| Table 87**. Prevalence of unmet basic needs during pregnancy<br><b>**New topic on phase 8 survey</b>  |   |
| Table 88**. Cumulative number of unmet basic needs during pregnancy<br><b>**New topic on phase 8 survey</b>   |   |
| Table 89*. Prevalence of any physical violence 12 months before or during pregnancy<br><i>*Direct comparison not possible between survey phases</i>   | Table 55. Prevalence of intimate partner violence by time period                          |
| Table 90. Perpetrator of abuse 12 months before conception  |   |
| Table 91. Perpetrator of abuse during pregnancy   |   |
| Table 92**. Prevalence of maternal adverse childhood experiences<br><b>**New topic on phase 8 survey</b>  |   |
| Table 93**. Cumulative number of maternal adverse childhood experiences<br><b>**New topic on phase 8 survey</b>   |   |
| Table 94**. From childhood through age 13 how often did mother's family have difficulty paying for basic needs like food and housing<br><b>**New topic on phase 8 survey</b>  |   |
| Table 95**. Positive responses to stressful events  |   |

| MI PRAMS 2021 Table   | MI PRAMS 2015 Table                       |
|---|---|
| <b>**New topic on phase 8 survey</b>  |   |
| Table 96**. Cumulative number of positive responses to stressful life events<br><b>**New topic on phase 8 survey</b>                            |   |
| Table 97. Post-partum checkout for mother   | Table 60. Post-partum checkout for mother |
| Table 98**. Prevalence of health care provider discussions and actions taken during postpartum checkout<br><b>**New topic on phase 8 survey</b> |   |
| Table 99. Post-partum depression symptoms   | Table 61. Post-partum depression symptoms |
| Table 100^. Maternal immunization before and during pregnancy<br>^Topic available, but not reported in Phase 7 tables (flu only)                |   |
| Table 101**. Plans for future infant immunization<br><b>**New topic on survey Phase 8</b>   |   |
| Table 102**. Average amount of maternal sleep each night in the last week<br><b>**New topic on survey Phase 8</b>                               |   |
| Table 103**. Average number of times mother awoke each night in the last week<br><b>**New topic on survey Phase 8</b>                           |   |
| Table 104**. Partner living arrangement with mother<br><b>**New topic on survey Phase 8</b>   |   |
| Table 105**. Ways that husband or partner supports mother<br><b>**New topic on survey Phase 8</b>   |   |
| Table 106**. Cumulative number of ways that husband or partner supports mother<br><b>**New topic on survey Phase 8</b>                          |   |
| Table 107**. People available to help watch baby<br><b>**New topic on survey Phase 8</b>  |   |
| Table 108**. Cumulative number of infant caretakers<br><b>**New topic on survey Phase 8</b>   |   |

Phase 8 of the PRAMS includes birth years 2016 through 2022. Table numbers and names for the 2016-2022 Michigan PRAMS Maternal and Infant Health Summary Tables are identical. PRAMS tables, including tables for the 2015 birth year and past years, are available on the MI PRAMS Reports tab at [www.michigan.gov/prams](http://www.michigan.gov/prams).

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