



Telling  
the story  
of Michigan's  
mothers  
and  
babies.



# 2016 Birth Year Maternal and Infant Health Summary Tables

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## Introduction to the 2016 MI PRAMS Annual Tables

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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 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 Division of Lifecourse Epidemiology and Genomics.

MI PRAMS utilizes a mixed-mode methodology in order to gather information from women selected to participate in the survey. This combination mail/telephone survey methodology is used in order to maximize response rates. Data collection for the 2016 birth year was conducted by the Michigan Department of Health and Human Services (mail) the Bloustein Center for Survey Research at Rutgers University (phone).

MI PRAMS surveys approximately 1 to 2 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 2016, 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 2016, 3,488 women were selected for MI PRAMS and 1,798 completed the survey, for an unweighted response rate of 51.5 percent. Adjusting for differing probabilities of selection within each stratum, the weighted response rate is 55 percent. Survey results from these 1,798 respondents are weighted to represent the approximately 109,788 pregnancies resulting in live births in 2016. 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 2016 birth year is the first 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 at:

[http://www.michigan.gov/documents/mdch/MI\\_PRAMS\\_Topic\\_Map\\_366719\\_7.pdf](http://www.michigan.gov/documents/mdch/MI_PRAMS_Topic_Map_366719_7.pdf)

New survey topics covered in Phase 8 include marijuana and prescription opioid usage; e-cigarette and hookah usage; breastfeeding: reasons why not 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 the prior year's report can be found in the Appendix.

**Table 1. Distribution of selected maternal characteristics,  
MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Maternal Age</b>				
Total	1,798	109,788	100.0	
<18 Years	33	1,721	1.6	(1.0-2.5)
18-19 Years	85	3,844	3.5	(2.6-4.7)
20-24 Years	400	21,989	20.0	(17.7-22.5)
25-29 Years	570	34,691	31.6	(28.9-34.4)
30-34 Years	440	30,099	27.4	(24.9-30.1)
35-39 Years	217	14,350	13.1	(11.2-15.2)
40+ Years	53	3,093	2.8	(2.0-3.9)
<b>Race/Ethnicity</b>				
Total	1,796	109,642	100.0	
White, non-Hispanic	785	73,760	67.3	(65.0-69.4)
Black, non-Hispanic	824	19,759	18.0	(17.6-18.5)
Hispanic	79	7,180	6.5	(5.1-8.4)
Asian/Pacific Islander, non-Hispanic	47	3,566	3.3	(2.4-4.4)
Other, non-Hispanic	61	5,377	4.9	(3.7-6.5)
<b>Education</b>				
Total	1,785	109,141	100.0	
<High School	226	11,496	10.5	(8.9-12.5)
HS Grad/GED	477	28,690	26.3	(23.7-29.1)
Some College	573	31,899	29.2	(26.7-31.9)
College Degree+	509	37,055	34.0	(31.2-36.8)
<b>Pre-Pregnancy Insurance Status</b>				
Total	1,736	105,983	100.0	
Uninsured	104	6,869	6.5	(5.1-8.3)
Medicaid/Public	648	30,140	28.4	(25.9-31.1)
Private	984	68,974	65.1	(62.2-67.8)
<b>Marital Status</b>				
Total	1,796	109,728	100.0	
Married	891	67,050	61.1	(58.3-63.8)
Other	905	42,677	38.9	(36.2-41.7)
<b>Parity</b>				
Total	1,798	109,788	100.0	
No Prior Live Births	661	38,533	35.1	(32.3-38.0)
1	566	39,158	35.7	(32.9-38.6)
2+	571	32,097	29.2	(26.6-32.0)
<b>Last Year's Household Income</b>				
Total	1,411	98,953	100.0	
<\$16,000	455	20,945	21.0	(18.7-23.5)
\$16,001-\$24,000	238	13,711	13.7	(11.7-16.1)
\$24,001-\$40,000	247	15,494	15.5	(13.4-18.0)
\$40,001-\$60,000	185	12,976	13.0	(11.0-15.3)
\$60,001+	464	36,613	36.7	(33.8-39.7)



**Table 2. Distribution of pre-pregnancy maternal body mass index categories, MI PRAMS, 2016**

<b>Body Mass Index (BMI)</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>BMI Category<sup>†</sup></b>				
Underweight	55	3,196	2.9	(2.1-4.1)
Normal Weight	820	53,214	48.5	(45.5-51.4)
Overweight	421	26,193	23.9	(21.4-26.5)
Obese	502	27,185	24.8	(22.3-27.4)

†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: Institute of Medicine (US) and National Research Council (US) Committee to Reexamine IOM Pregnancy Weight Guidelines; Rasmussen KM, Yaktine AL, editors. Weight Gain During Pregnancy: Reexamining the Guidelines. Washington (DC): National Academies Press (US); 2009.

**Table 3. Prevalence of pre-pregnancy underweight BMI by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	55	3,196	2.9	(2.1-4.1)
<b>Maternal Age</b>				
<20 Years	*	*	*	*
20-29 Years	32	1,903	3.4	(2.1-5.3)
30+ Years	15	966	2.0**	(1.1-3.7)
<b>Race/Ethnicity</b>				
White, non-Hispanic	17	1,634	2.2	(1.3-3.8)
Black, non-Hispanic	27	688	3.5	(2.4-5.1)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	*	*	*	*
<b>Education</b>				
<High School	12	430	3.7**	(1.6-8.3)
HS Grad/GED	25	1,658	5.8	(3.5-9.5)
Some College	7	333	1.0**	(0.4-2.7)
College Degree+	11	776	2.1**	(1.1-4.0)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	8	565	8.2**	(3.5-17.9)
Medicaid/Public	20	774	2.6**	(1.4-4.7)
Private	23	1,545	2.2	(1.3-3.7)
<b>Marital Status</b>				
Married	19	1,462	2.2	(1.3-3.7)
Other	36	1,735	4.1	(2.6-6.4)
<b>Parity</b>				
No previous live birth	26	1,322	3.4	(2.1-5.6)
1	13	911	2.3**	(1.2-4.5)
2+	16	963	3.0**	(1.6-5.7)
<b>Last Year's Household Income</b>				
<\$16,000	14	732	3.5**	(1.7-7.1)
\$16,001-\$24,000	11	424	3.1**	(1.3-7.0)
\$24,001-\$40,000	9	538	3.5**	(1.5-7.9)
\$40,001-\$60,000	*	*	*	*
\$60,001+	8	638	1.7**	(0.8-3.8)

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

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

**Table 4. Prevalence of pre-pregnancy normal weight BMI by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	820	53,214	48.5	(45.5-51.4)
<b>Maternal Age</b>				
<20 Years	73	3,369	60.5	(47.2-72.5)
20-29 Years	430	25,461	44.9	(40.8-49.1)
30+ Years	317	24,384	51.3	(46.9-55.7)
<b>Race/Ethnicity</b>				
White, non-Hispanic	407	37,882	51.4	(47.5-55.2)
Black, non-Hispanic	321	7,659	38.8	(35.3-42.3)
Hispanic	31	2,789	38.8	(27.2-52.0)
Asian/Pacific Islander, non-Hispanic	26	1,821	51.1	(35.3-66.6)
Other, non-Hispanic	34	2,943	54.7	(40.5-68.2)
<b>Education</b>				
<High School	122	6,317	54.9	(45.8-63.8)
HS Grad/GED	188	11,651	40.6	(34.7-46.8)
Some College	230	13,777	43.2	(38.1-48.4)
College Degree+	274	21,022	56.7	(51.7-61.6)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	41	2,465	35.9	(25.1-48.3)
Medicaid/Public	282	12,808	42.5	(37.3-47.9)
Private	476	36,435	52.8	(49.1-56.6)
<b>Marital Status</b>				
Married	430	34,133	50.9	(47.1-54.7)
Other	389	19,046	44.6	(40.1-49.2)
<b>Parity</b>				
No previous live birth	323	19,436	50.4	(45.5-55.3)
1	276	19,931	50.9	(45.9-55.9)
2+	221	13,847	43.1	(37.9-48.6)
<b>Last Year's Household Income</b>				
<\$16,000	191	9,262	44.2	(37.9-50.8)
\$16,001-\$24,000	99	5,556	40.5	(32.3-49.3)
\$24,001-\$40,000	91	6,076	39.2	(31.6-47.4)
\$40,001-\$60,000	73	5,666	43.7	(35.3-52.4)
\$60,001+	257	20,903	57.1	(51.9-62.1)

**Table 5. Prevalence of pre-pregnancy overweight BMI by maternal characteristics,  
MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	421	26,193	23.9	(21.4-26.5)
<b>Maternal Age</b>				
<20 Years	18	1,117	20.1	(11.0-33.8)
20-29 Years	223	13,472	23.8	(20.4-27.5)
30+ Years	180	11,604	24.4	(20.9-28.3)
<b>Race/Ethnicity</b>				
White, non-Hispanic	192	17,876	24.2	(21.1-27.7)
Black, non-Hispanic	189	4,421	22.4	(19.6-25.5)
Hispanic	17	1,769	24.6	(15.0-37.7)
Asian/Pacific Islander, non-Hispanic	8	803	22.5**	(11.7-38.9)
Other, non-Hispanic	15	1,323	24.6	(14.4-38.8)
<b>Education</b>				
<High School	41	2,188	19.0	(12.8-27.3)
HS Grad/GED	112	6,484	22.6	(17.9-28.1)
Some College	145	8,329	26.1	(21.8-30.9)
College Degree+	120	9,102	24.6	(20.5-29.2)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	23	1,824	26.6	(16.6-39.6)
Medicaid/Public	135	6,491	21.5	(17.4-26.4)
Private	244	16,714	24.2	(21.2-27.5)
<b>Marital Status</b>				
Married	225	17,218	25.7	(22.5-29.2)
Other	195	8,949	21.0	(17.5-24.9)
<b>Parity</b>				
No previous live birth	149	9,240	24.0	(19.9-28.5)
1	133	9,030	23.1	(19.1-27.5)
2+	139	7,922	24.7	(20.4-29.5)
<b>Last Year's Household Income</b>				
<\$16,000	101	4,124	19.7	(15.1-25.2)
\$16,001-\$24,000	55	3,501	25.5	(18.6-34.0)
\$24,001-\$40,000	61	4,191	27.0	(20.5-34.8)
\$40,001-\$60,000	52	3,660	28.2	(21.1-36.6)
\$60,001+	114	8,966	24.5	(20.4-29.2)

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

**Table 6. Prevalence of pre-pregnancy obese BMI by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	502	27,185	24.8	(22.3-27.4)
<b>Maternal Age</b>				
<20 Years	19	753	13.5**	(7.3-23.8)
20-29 Years	285	15,844	28.0	(24.4-31.9)
30+ Years	198	10,588	22.3	(18.9-26.0)
<b>Race/Ethnicity</b>				
White, non-Hispanic	169	16,368	22.2	(19.1-25.7)
Black, non-Hispanic	287	6,990	35.4	(32.0-38.9)
Hispanic	28	2,315	32.2	(21.5-45.2)
Asian/Pacific Islander, non-Hispanic	8	547	15.3**	(6.6-31.7)
Other, non-Hispanic	9	939	17.5	(9.0-31.1)
<b>Education</b>				
<High School	51	2,562	22.3	(15.6-30.8)
HS Grad/GED	152	8,898	31.0	(25.6-37.0)
Some College	191	9,461	29.7	(25.2-34.6)
College Degree+	104	6,155	16.6	(13.2-20.6)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	32	2,015	29.3	(19.1-42.2)
Medicaid/Public	211	10,067	33.4	(28.5-38.7)
Private	241	14,279	20.7	(17.9-23.9)
<b>Marital Status</b>				
Married	217	14,238	21.2	(18.3-24.5)
Other	285	12,948	30.3	(26.3-34.7)
<b>Parity</b>				
No previous live birth	163	8,535	22.1	(18.3-26.5)
1	144	9,286	23.7	(19.7-28.3)
2+	195	9,365	29.2	(24.6-34.2)
<b>Last Year's Household Income</b>				
<\$16,000	149	6,827	32.6	(26.8-39.0)
\$16,001-\$24,000	73	4,230	30.9	(23.3-39.5)
\$24,001-\$40,000	86	4,690	30.3	(23.4-38.1)
\$40,001-\$60,000	56	3,156	24.3	(17.8-32.3)
\$60,001+	85	6,106	16.7	(13.2-20.9)

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

**Table 7. Prevalence of maternal health problems during the 3 months before pregnancy, MI PRAMS, 2016**

<b>Maternal Health Problem</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Types (non-exclusive)</b>				
Anxiety	337	22,545	20.7	(18.3-23.3)
Depression	264	17,391	16.0	(13.8-18.4)
Anemia	377	16,897	15.5	(13.6-17.7)
Asthma	265	16,202	14.9	(12.9-17.1)
Thyroid Problems	135	10,333	9.5	(7.8-11.4)
Polycystic Ovary Syndrome (PCOS)	126	8,805	8.1	(6.6-9.9)
Hypertension	143	7,204	6.6	(5.3-8.1)
Diabetes	86	5,866	5.4	(4.2-6.9)
Heart Problems	78	5,012	4.6	(3.5-6.1)
Epilepsy	66	4,303	3.9	(2.9-5.3)

**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, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,134	73,711	67.9	(65.1-70.6)
<b>Maternal Age</b>				
<20 Years	62	3,541	63.8	(51.1-74.8)
20-29 Years	561	33,794	60.2	(56.0-64.2)
30+ Years	511	36,375	77.6	(73.8-81.0)
<b>Race/Ethnicity</b>				
White, non-Hispanic	593	54,081	73.7	(70.1-77.1)
Black, non-Hispanic	433	10,354	53.0	(49.4-56.5)
Hispanic	44	3,959	56.4	(43.3-68.7)
Asian/Pacific Islander, non-Hispanic	29	2,296	67.0	(50.4-80.3)
Other, non-Hispanic	33	2,875	56.6	(42.0-70.2)
<b>Education</b>				
<High School	94	4,844	43.0	(34.2-52.3)
HS Grad/GED	233	14,989	53.1	(46.8-59.2)
Some College	373	21,842	68.9	(64.0-73.5)
College Degree+	428	31,685	86.3	(82.5-89.5)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	36	2,054	29.9	(20.0-42.1)
Medicaid/Public	326	15,855	53.4	(47.9-58.7)
Private	749	54,162	79.2	(75.9-82.1)
<b>Marital Status</b>				
Married	671	50,724	76.6	(73.1-79.8)
Other	462	22,961	54.3	(49.7-58.9)
<b>Parity</b>				
No previous live birth	419	25,973	68.6	(63.8-73.1)
1	383	27,630	70.9	(66.1-75.3)
2+	332	20,108	63.3	(58.0-68.4)
<b>Last Year's Household Income</b>				
<\$16,000	235	11,520	55.2	(48.7-61.5)
\$16,001-\$24,000	121	6,842	51.7	(42.9-60.4)
\$24,001-\$40,000	151	8,913	58.2	(49.9-66.1)
\$40,001-\$60,000	127	9,233	71.9	(63.6-79.0)
\$60,001+	409	32,603	89.8	(86.3-92.5)

**Table 9. Type of healthcare visits among women in the 12 months before pregnancy, MI PRAMS, 2016**

Type of visit	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Type of Visit (non-exclusive)</b>				
Dentist	711	49,504	66.5	(63.0-69.7)
OB/GYN check up	733	48,296	65.0	(61.5-68.4)
Illness	199	14,418	19.4	(16.7-22.4)
Family planning/Birth control	210	13,029	17.5	(15.0-20.4)
Depression/Anxiety	128	8,109	10.9	(8.8-13.4)
Injury	54	3,849	5.2	(3.8-7.1)
Other	149	9,960	13.4	(11.1-16.0)

**Table 10. Type of counseling/screening among women reporting any healthcare visits in the 12 months before pregnancy, MI PRAMS, 2016**

Type of counseling/screening	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Type (non-exclusive)</b>				
Smoking screening	906	60,057	81.3	(78.4-83.9)
Current job duties	725	48,059	65.3	(61.8-68.7)
Depression screening	634	39,150	53.1	(49.5-56.7)
Emotional and physical abuse screening	621	38,375	52.1	(48.6-55.7)
Family planning	510	34,972	47.2	(43.6-50.8)
Birth control	540	32,730	44.3	(40.7-47.9)
Folic acid vitamins	374	27,277	37.0	(33.6-40.6)
Healthy weight	459	27,063	36.7	(33.3-40.2)
Improving pre-conception health	397	24,526	33.3	(30.0-36.8)
HIV test administered	425	21,473	29.6	(26.5-32.9)
STI	373	19,766	26.8	(23.8-30.1)
Controlling medical conditions e.g. diabetes/high blood pressure	182	9,875	13.5	(11.2-16.0)

**Table 11. Frequency of taking a folate-containing vitamin in the month before pregnancy, MI PRAMS, 2016**

Frequency of vitamin use	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Frequency of vitamin use</b>				
Didn't take a vitamin	995	56,060	51.2	(48.3-54.1)
1-3 times per week	121	7,342	6.7	(5.4-8.3)
4-6 times per week	101	7,811	7.1	(5.7-8.9)
Every day of the week	572	38,255	34.9	(32.2-37.8)



**Table 12. Prevalence of no folic acid containing vitamin consumption in the month before pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	995	56,060	51.2	(48.3-54.1)
<b>Maternal Age</b>				
<20 Years	77	3,917	71.2	(58.2-81.5)
20-29 Years	625	34,636	61.3	(57.2-65.3)
30+ Years	293	17,507	36.9	(32.7-41.2)
<b>Race/Ethnicity</b>				
White, non-Hispanic	363	35,201	47.8	(44.0-51.7)
Black, non-Hispanic	533	12,706	64.8	(61.3-68.1)
Hispanic	50	4,564	63.6	(50.5-74.9)
Asian/Pacific Islander, non-Hispanic	17	1,127	31.8	(19.0-48.0)
Other, non-Hispanic	30	2,315	43.1	(29.9-57.3)
<b>Education</b>				
<High School	155	8,631	75.6	(67.3-82.4)
HS Grad/GED	324	18,757	65.5	(59.4-71.1)
Some College	327	16,923	53.3	(48.1-58.5)
College Degree+	182	11,464	31.0	(26.5-35.8)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	79	5,419	79.1	(67.8-87.2)
Medicaid/Public	437	20,935	69.7	(64.7-74.3)
Private	440	27,304	39.7	(36.1-43.4)
<b>Marital Status</b>				
Married	359	24,969	37.4	(33.7-41.2)
Other	634	31,030	72.9	(68.7-76.7)
<b>Parity</b>				
No previous live birth	358	19,253	50.1	(45.2-55.0)
1	292	17,835	45.7	(40.8-50.8)
2+	345	18,972	59.2	(53.8-64.4)
<b>Last Year's Household Income</b>				
<\$16,000	325	15,126	72.3	(66.2-77.7)
\$16,001-\$24,000	167	9,397	68.6	(60.1-76.1)
\$24,001-\$40,000	153	10,141	65.6	(57.8-72.7)
\$40,001-\$60,000	91	5,969	46.4	(37.9-55.1)
\$60,001+	140	9,987	27.3	(23.0-32.1)

Michigan PRAMS asks women 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. Women 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 women with an "intended" pregnancy. Mothers 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 (2016-2020), a fifth pregnancy intention response option is offered. Women 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 women 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 women 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 women 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, 2016**

<b>Intention</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Intended	890	63,043	58.9	(56.0-61.7)
Unintended	526	27,348	25.5	(23.1-28.2)
Unsure	334	16,671	15.6	(13.6-17.8)

**Table 14. Distribution of unintended pregnancy subtypes among women reporting either unsure or unintended pregnancy, MI PRAMS, 2016**

<b>Unintended Pregnancy Subtype</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Mistimed	379	20,828	47.3	(42.8-51.9)
Unwanted	147	6,520	14.8	(12.0-18.2)
Unsure	334	16,671	37.9	(33.6-42.4)

**Table 15. Prevalence of unintended pregnancy by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	526	27,348	25.5	(23.1-28.2)
<b>Maternal Age</b>				
<20 Years	65	3,373	63.0	(49.8-74.4)
20-29 Years	322	16,652	30.0	(26.3-33.9)
30+ Years	139	7,323	15.9	(12.9-19.3)
<b>Race/Ethnicity</b>				
White, non-Hispanic	156	15,969	22.1	(18.9-25.7)
Black, non-Hispanic	329	7,894	41.2	(37.7-44.8)
Hispanic	24	2,025	29.4	(18.7-42.8)
Asian/Pacific Islander, non-Hispanic	7	525	15.3**	(6.4-32.2)
Other, non-Hispanic	10	934	17.9**	(9.1-32.1)
<b>Education</b>				
<High School	99	4,968	45.2	(36.2-54.6)
HS Grad/GED	171	9,149	33.0	(27.4-39.0)
Some College	172	8,505	27.2	(22.9-32.1)
College Degree+	80	4,601	12.6	(9.6-16.4)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	42	2,542	38.5	(26.8-51.6)
Medicaid/Public	247	10,376	35.3	(30.4-40.6)
Private	222	13,328	19.7	(16.9-22.9)
<b>Marital Status</b>				
Married	147	9,164	13.9	(11.5-16.9)
Other	378	18,149	44.0	(39.4-48.7)
<b>Parity</b>				
No previous live birth	194	9,894	26.3	(22.1-30.9)
1	140	7,943	20.7	(16.9-25.0)
2+	192	9,511	30.7	(25.9-36.0)
<b>Last Year's Household Income</b>				
<\$16,000	195	8,164	40.7	(34.4-47.3)
\$16,001-\$24,000	98	5,704	41.6	(33.3-50.5)
\$24,001-\$40,000	75	3,935	26.0	(19.6-33.5)
\$40,001-\$60,000	43	2,604	20.6	(14.5-28.4)
\$60,001+	61	4,304	11.9	(8.9-15.8)

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

**Table 16. Distribution of contraceptive behaviors at the time of conception,  
MI PRAMS, 2016**

<b>Contraceptive Practice Subtype</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Trying to conceive	820	59,950	55.3	(52.3-58.1)
Avoiding pregnancy	353	18,465	17.0	(14.9-19.3)
Neither trying nor avoiding pregnancy	595	30,081	27.7	(25.2-30.4)

**Table 17. Prevalence of trying to conceive during the pre-pregnancy period by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	820	59,950	55.3	(52.3-58.1)
<b>Maternal Age</b>				
<20 Years	13	893	16.4	(8.4-29.4)
20-29 Years	395	27,697	49.4	(45.3-53.6)
30+ Years	412	31,360	66.7	(62.5-70.6)
<b>Race/Ethnicity</b>				
White, non-Hispanic	486	44,620	60.9	(57.0-64.7)
Black, non-Hispanic	212	4,990	25.9	(22.9-29.2)
Hispanic	43	3,773	52.8	(39.8-65.4)
Asian/Pacific Islander, non-Hispanic	39	3,046	87.7**	(71.8-95.2)
Other, non-Hispanic	38	3,375	63.9	(49.1-76.4)
<b>Education</b>				
<High School	48	2,892	26.2	(18.8-35.4)
HS Grad/GED	167	12,459	43.9	(37.8-50.1)
Some College	230	15,382	48.6	(43.4-53.8)
College Degree+	370	28,803	78.4	(74.0-82.2)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	32	2,040	30.5	(20.5-42.8)
Medicaid/Public	179	10,306	34.7	(29.6-40.1)
Private	581	45,426	66.3	(62.7-69.8)
<b>Marital Status</b>				
Married	605	48,783	73.5	(69.9-76.7)
Other	214	11,141	26.5	(22.5-30.9)
<b>Parity</b>				
No previous live birth	317	21,494	56.3	(51.4-61.1)
1	305	24,983	64.9	(60.0-69.5)
2+	198	13,473	42.3	(37.1-47.8)
<b>Last Year's Household Income</b>				
<\$16,000	110	5,921	28.9	(23.2-35.2)
\$16,001-\$24,000	75	5,258	38.5	(30.3-47.5)
\$24,001-\$40,000	108	7,682	50.4	(42.3-58.5)
\$40,001-\$60,000	99	7,644	59.0	(50.3-67.1)
\$60,001+	357	29,635	81.2	(77.0-84.9)

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

**Table 18. Prevalence of became pregnant despite using contraceptive practices by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	353	18,465	17.0	(14.9-19.3)
<b>Maternal Age</b>				
<20 Years	32	1,683	30.9	(19.8-44.7)
20-29 Years	211	10,644	19.0	(16.0-22.5)
30+ Years	110	6,138	13.1	(10.4-16.3)
<b>Race/Ethnicity</b>				
White, non-Hispanic	115	11,290	15.4	(12.7-18.6)
Black, non-Hispanic	213	5,145	26.7	(23.7-30.1)
Hispanic	14	1,276	17.9	(9.9-30.2)
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	8	621	11.8**	(5.0-25.2)
<b>Education</b>				
<High School	58	3,173	28.8	(21.0-38.1)
HS Grad/GED	93	5,338	18.8	(14.4-24.1)
Some College	147	6,742	21.3	(17.4-25.8)
College Degree+	51	3,104	8.4	(6.0-11.7)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	27	1,350	20.2	(12.1-31.7)
Medicaid/Public	156	7,374	24.8	(20.3-29.9)
Private	159	9,245	13.5	(11.1-16.3)
<b>Marital Status</b>				
Married	104	6,190	9.3	(7.3-11.8)
Other	249	12,276	29.2	(25.1-33.7)
<b>Parity</b>				
No previous live birth	128	6,453	16.9	(13.5-20.9)
1	74	3,687	9.6	(7.1-12.8)
2+	151	8,325	26.2	(21.6-31.3)
<b>Last Year's Household Income</b>				
<\$16,000	132	6,477	31.6	(25.7-38.1)
\$16,001-\$24,000	65	2,938	21.5	(15.5-29.1)
\$24,001-\$40,000	50	2,666	17.5	(12.1-24.6)
\$40,001-\$60,000	27	1,453	11.2	(7.1-17.2)
\$60,001+	43	2,948	8.1	(5.7-11.3)

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

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

**Table 19. Prevalence of contraception methods used by women who became pregnant despite using contraceptive practices, MI PRAMS, 2016**

<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>				
Condoms	169	9,183	47.9	(41.0-54.9)
Withdrawal	110	6,263	32.7	(26.4-39.7)
Oral Contraceptives	93	4,555	23.8	(18.5-30.0)
Rhythm Method	31	2,227	11.6	(7.7-17.2)
Shot Every 3 Months	45	1,921	10	(6.7-14.8)
Contraceptive Patch	8	621	3.2**	(1.3-7.7)
Intrauterine Device	11	469	2.4**	(1.1-5.5)
Contraceptive Implant	*	*	*	*
Other	17	1,082	5.6	(3.0-10.3)

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

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



**Table 20. Prevalence of women who were not trying to conceive - but were not doing anything to prevent pregnancy - by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	595	30,081	27.7	(25.2-30.4)
<b>Maternal Age</b>				
<20 Years	69	2,879	52.8	(39.5-65.7)
20-29 Years	347	17,677	31.6	(27.8-35.5)
30+ Years	179	9,525	20.3	(17.0-23.9)
<b>Race/Ethnicity</b>				
White, non-Hispanic	179	17,300	23.6	(20.4-27.2)
Black, non-Hispanic	378	9,106	47.3	(43.7-51.0)
Hispanic	20	2,093	29.3	(18.7-42.7)
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	14	1,288	24.4	(14.1-38.7)
<b>Education</b>				
<High School	109	4,955	45.0	(36.0-54.3)
HS Grad/GED	209	10,615	37.4	(31.6-43.4)
Some College	189	9,551	30.2	(25.7-35.1)
College Degree+	84	4,835	13.2	(10.1-16.9)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	42	3,295	49.3	(36.8-61.9)
Medicaid/Public	299	12,063	40.6	(35.4-45.9)
Private	236	13,797	20.2	(17.3-23.3)
<b>Marital Status</b>				
Married	171	11,442	17.2	(14.5-20.4)
Other	423	18,604	44.3	(39.7-48.9)
<b>Parity</b>				
No previous live births	206	10,243	26.8	(22.7-31.4)
1	175	9,821	25.5	(21.4-30.1)
2+	214	10,017	31.5	(26.8-36.6)
<b>Last Year's Household Income</b>				
<\$16,000	204	8,124	39.6	(33.4-46.1)
\$16,001-\$24,000	95	5,449	39.9	(31.7-48.8)
\$24,001-\$40,000	85	4,885	32.1	(25.0-40.0)
\$40,001-\$60,000	58	3,868	29.8	(22.5-38.3)
\$60,001+	62	3,905	10.7	(8.0-14.2)

\*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, 2016**

<b>Reason</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Reason (non-exclusive)</b>				
Didn't Mind Getting Pregnant	281	14,866	48.5	(43.1-54.0)
Thought Couldn't Get Pregnant at That Time	153	6,115	20	(16.2-24.4)
Partner Didn't Want to Use Birth Control	109	5,470	18	(14.1-22.6)
Side Effects from Birth Control	79	4,540	14.8	(11.2-19.3)
Thought Self/Partner Sterile	56	2,348	7.7	(5.3-11.0)
Forgot to Use Birth Control	67	2,230	7.3	(5.3-10.0)
Problems Getting Birth Control	41	2,111	6.9	(4.5-10.4)
Other Reason	96	5,047	16.5	(12.8-21.0)

**Table 22. Prevalence of using any postpartum contraceptive method by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,361	85,170	79.3	(76.7-81.6)
<b>Maternal Age</b>				
<20 Years	95	4,743	89.5	(79.8-94.9)
20-29 Years	719	42,625	77.1	(73.4-80.5)
30+ Years	547	37,803	80.6	(76.9-83.8)
<b>Race/Ethnicity</b>				
White, non-Hispanic	611	58,217	79.7	(76.4-82.7)
Black, non-Hispanic	607	14,516	77.4	(74.1-80.3)
Hispanic	64	5,978	85.6	(73.8-92.7)
Asian/Pacific Islander, non-Hispanic	33	2,619	78.1**	(62.0-88.7)
Other, non-Hispanic	44	3,694	70.8**	(56.4-82.0)
<b>Education</b>				
<High School	166	8,649	78.6	(69.9-85.3)
HS Grad/GED	346	20,979	75.1	(69.2-80.1)
Some College	441	25,018	79.7	(75.2-83.6)
College Degree+	398	30,065	82.4	(78.4-85.8)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	80	5,131	75.8	(63.0-85.2)
Medicaid/Public	484	22,793	78.4	(73.5-82.6)
Private	755	54,507	80.3	(77.2-83.1)
<b>Marital Status</b>				
Married	686	52,219	79.0	(75.6-82.0)
Other	674	32,925	79.7	(75.8-83.2)
<b>Parity</b>				
No previous live birth	488	29,675	79.4	(75.2-83.0)
1	426	30,368	78.8	(74.3-82.6)
2+	447	25,127	79.7	(74.9-83.9)
<b>Last Year's Household Income</b>				
<\$16,000	362	16,164	78.1	(72.2-83.1)
\$16,001-\$24,000	190	11,159	82.9	(75.3-88.5)
\$24,001-\$40,000	179	11,345	73.8	(66.0-80.3)
\$40,001-\$60,000	147	10,375	81.8	(74.1-87.7)
\$60,001+	359	29,118	80.3	(75.9-84.1)

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

**Table 23. Prevalence of postpartum contraceptive methods,  
MI PRAMS, 2016**

<b>Method</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Pregnancy prevention method (non-exclusive)</b>				
Condoms	424	26,632	31.0	(28.0-34.2)
Oral Contraceptives	333	22,987	26.8	(23.9-29.9)
Withdrawal	212	14,740	17.2	(14.8-19.9)
Intrauterine Device	174	10,923	12.7	(10.6-15.1)
Tubal Ligation	157	9,721	11.4	(9.4-13.7)
Shot Every 3 Months	211	8,475	9.9	(8.2-11.9)
Abstinence	162	8,318	9.7	(8.0-11.8)
Rhythm Method	66	4,656	5.4	(4.1-7.3)
Partner Had Vasectomy	47	3,526	4.1	(3.0-5.7)
Contraceptive Implant	60	3,556	4.1	(2.9-5.8)
Contraceptive Patch or Vaginal Ring	28	1,396	1.6	(1.0-2.7)
Other Method	27	1,956	2.3	(1.4-3.6)

**Table 24. Prevalence of no postpartum contraceptive methods by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	377	22,292	20.7	(18.4-23.3)
<b>Maternal Age</b>				
<20 Years	17	554	10.5**	(5.1-20.2)
20-29 Years	211	12,633	22.9	(19.5-26.6)
30+ Years	149	9,105	19.4	(16.2-23.1)
<b>Race/Ethnicity</b>				
White, non-Hispanic	165	14,794	20.3	(17.3-23.6)
Black, non-Hispanic	172	4,242	22.6	(19.7-25.9)
Hispanic	12	1,002	14.4**	(7.3-26.2)
Asian/Pacific Islander, non-Hispanic	12	733	21.9**	(11.3-38.0)
Other, non-Hispanic	16	1,522	29.2	(18.0-43.6)
<b>Education</b>				
<High School	43	2,354	21.4	(14.7-30.1)
HS Grad/GED	113	6,964	24.9	(19.9-30.8)
Some College	114	6,366	20.3	(16.4-24.8)
College Degree+	104	6,421	17.6	(14.2-21.6)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	21	1,639	24.2	(14.8-37.0)
Medicaid/Public	131	6,286	21.6	(17.4-26.5)
Private	207	13,358	19.7	(16.9-22.8)
<b>Marital Status</b>				
Married	191	13,896	21.0	(18.0-24.4)
Other	185	8,361	20.3	(16.8-24.2)
<b>Parity</b>				
No previous live birth	146	7,717	20.6	(17.0-24.8)
1	128	8,190	21.2	(17.4-25.7)
2+	103	6,385	20.3	(16.1-25.1)
<b>Last Year's Household Income</b>				
<\$16,000	88	4,522	21.9	(16.9-27.8)
\$16,001-\$24,000	43	2,304	17.1	(11.5-24.7)
\$24,001-\$40,000	67	4,031	26.2	(19.7-34.0)
\$40,001-\$60,000	34	2,305	18.2	(12.3-25.9)
\$60,001+	100	7,138	19.7	(15.9-24.1)

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

**Table 25. Reasons for not using any postpartum contraception,  
MI PRAMS, 2016**

<b>Reason</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Reason (non-exclusive)</b>				
Doesn't Want to Use Birth Control	136	9,151	39.8	(33.7-46.3)
Side Effects from Birth Control	133	8,158	35.5	(29.5-41.9)
Not Having Sex	87	4,225	18.3	(14.0-23.5)
Wants to Get Pregnant	63	3,897	16.9	(12.6-22.4)
Partner Doesn't Want to Use Anything	48	3,347	14.6	(10.6-19.8)
Pregnant Now	12	662	2.9**	(1.2-6.5)
Problems Getting Birth Control	8	648	2.8**	(1.2-6.5)
Mother Had Tubes Tied	10	621	2.7**	(1.3-5.6)
Other Reason	77	4,508	19.5	(15.0-25.0)

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

**Table 26. Trimester of entry into prenatal care,  
MI PRAMS, 2016**

Trimester of entry	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
1st Trimester	1,459	92,223	86.8	(84.7-88.7)
2nd Trimester	229	12,336	11.6	(9.8-13.7)
3rd Trimester	29	1,187	1.1	(0.7-1.8)
No prenatal care	12	447	0.4**	(0.2-0.9)

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

**Table 27. Source of payments for prenatal care,  
MI PRAMS, 2016**

Source of prenatal care payment	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Source of payment (non-exclusive)</b>				
Uninsured during pregnancy	9	498	0.5**	(0.2-1.2)
Private - from work	736	53,958	50.7	(47.8-53.7)
Medicaid	882	45,153	42.5	(39.6-45.5)
Private- from parent	108	6,884	6.5	(5.1-8.2)
Private – from MI Health Insurance Marketplace	72	4,028	3.8	(2.8-5.1)
Other government	36	2,241	2.1	(1.4-3.2)
Private - TRICARE/other military	14	837	0.8**	(0.4-1.5)
Indian Health Services or other tribal	*	*	*	*
Other	117	6,616	6.2	(4.9-7.9)

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

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

**Table 28. Prevalence of first trimester entry into prenatal care by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,459	92,223	86.8	(84.7-88.7)
<b>Maternal Age</b>				
<20 Years	79	3,964	72.2	(59.6-82.0)
20-29 Years	770	46,914	84.8	(81.6-87.5)
30+ Years	610	41,346	91.1	(88.1-93.4)
<b>Race/Ethnicity</b>				
White, non-Hispanic	702	65,344	91.2	(88.5-93.3)
Black, non-Hispanic	611	14,620	78.0	(74.8-80.9)
Hispanic	60	5,575	80.6	(68.1-89.1)
Asian/Pacific Islander, non-Hispanic	38	2,968	84.2**	(68.4-92.9)
Other, non-Hispanic	46	3,569	68.8	(53.5-80.8)
<b>Education</b>				
<High School	140	7,663	70.2	(61.2-77.8)
HS Grad/GED	372	22,522	82.0	(76.7-86.4)
Some College	477	27,753	88.5	(85.0-91.3)
College Degree+	461	33,768	94.1	(91.1-96.2)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	80	5,414	80.7	(68.6-88.9)
Medicaid/Public	471	22,766	79.0	(74.4-83.0)
Private	869	61,247	91.3	(88.9-93.3)
<b>Marital Status</b>				
Married	799	60,269	92.6	(90.2-94.5)
Other	659	31,929	77.7	(73.7-81.3)
<b>Parity</b>				
No previous live birth	541	31,813	84.7	(80.6-88.1)
1	474	34,082	91.2	(88.0-93.6)
2+	444	26,328	84.2	(79.9-87.7)
<b>Last Year's Household Income</b>				
<\$16,000	318	15,054	75.5	(69.5-80.6)
\$16,001-\$24,000	182	10,653	80.6	(72.9-86.5)
\$24,001-\$40,000	213	13,172	86.3	(79.2-91.2)
\$40,001-\$60,000	166	11,789	93.0**	(87.2-96.3)
\$60,001+	433	34,075	95.1	(92.1-97.0)

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



**Table 29. Prevalence of getting prenatal care as early as wanted, MI PRAMS, 2016**

<b>Got care as early as wanted</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
No	266	14,144	13.2	(11.3-15.2)
Yes	1,488	93,384	86.8	(84.8-88.7)

**Table 30. Prevalence of getting prenatal care as early as wanted by first trimester entry into prenatal care, MI PRAMS, 2016**

<b>Trimester of Entry to Prenatal Care</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>First Trimester</b>				
Yes, started PNC as early as wanted	1,312	84,195	92.1	(90.2-93.6)
No, wanted to start PNC earlier	136	7,257	7.9	(6.4-9.8)
<b>After First Trimester</b>				
Yes, started PNC as early as wanted	127	6,680	50.5	(42.1-58.8)
No, wanted to start PNC earlier	125	6,556	49.5	(41.2-57.9)

**Table 31. Barriers to starting prenatal care as early as wanted among women who began prenatal care during the first trimester, MI PRAMS, 2016**

Barrier	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Barrier (non-exclusive)</b>				
Could not get appt	55	3,029	46.7	(35.7-58.1)
Doctor/health plan would not start	47	2,865	42.0	(31.4-53.4)
Did not know pregnant	48	2,104	33.1	(23.4-44.6)
Not enough \$ or insurance to pay	16	810	13.1	(7.0-23.2)
No Medicaid card	15	558	9.4	(4.6-18.3)
No transportation	12	526	8.4**	(4.1-16.3)
Too many other things	9	343	5.6**	(2.5-12.2)
No time off from work or school	9	324	5.4**	(2.3-12.1)
Wanted to keep pregnancy a secret	*	*	*	*
Could not get childcare	*	*	*	*
Did not want PNC	*	*	*	*

\*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, 2016**

Barrier	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Barrier (non-exclusive)</b>				
Did not know pregnant	71	3,295	50.0	(38.3-61.7)
Could not get appt	43	2,079	32.5	(22.5-44.4)
Too many other things	29	1,395	21.9	(13.6-33.2)
Not enough \$ or insurance to pay	24	1,291	19.6	(11.9-30.4)
No Medicaid card	17	1,042	16.3	(9.2-27.2)
Doctor/health plan would not start	16	1,001	15.8	(8.7-27.2)
No transportation	21	960	15.1	(8.5-25.6)
No time off from work or school	17	928	14.5	(7.8-25.2)
Wanted to keep pregnancy a secret	16	542	8.6**	(4.3-16.4)
Did not want PNC	9	356	5.7**	(2.2-14.1)
Could not get childcare	*	*	*	*

\*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, 2016**

<b>Topic Discussed</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Topic (non-exclusive)</b>				
Smoking During Pregnancy	1,680	103,953	96.6	(95.5-97.5)
Using Alcohol During Pregnancy	1,672	103,039	95.9	(94.6-96.9)
Using Prescription Medicine During Pregnancy	1,648	102,667	95.7	(94.4-96.7)
Breastfeeding Plans	1,629	98,854	92.4	(90.7-93.9)
Using Illegal Drug During Pregnancy	1,510	90,914	84.7	(82.5-86.7)
Post-partum contraception plans	1,495	89,378	83.4	(81.1-85.5)
Feeling depressed	1,451	86,603	81.1	(78.7-83.4)
Experiencing emotional or physical abuse	1,415	84,743	79.6	(77.1-81.8)
Offered HIV testing	1,303	76,830	72.9	(70.1-75.5)
Knowledge of appropriate weight gain	1,079	66,006	62.3	(59.3-65.1)

**Table 34. Prevalence of Pregnancy Complications, MI PRAMS, 2016**

<b>Pregnancy Complications</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Severe nausea, vomiting, dehydration	374	18,708	17.2	(15.2-19.5)
Depression	252	14,483	13.3	(11.4-15.5)
Kidney/Bladder Infection	245	13,438	12.4	(10.5-14.4)
High Blood Pressure	258	13,141	12.0	(10.3-14.0)
Gestational Diabetes w/o Pre-Pregnancy Diabetes	150	9,186	8.5	(7.0-10.3)

**Table 35. Prevalence of smoking during the 3 months before pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	385	23,926	22.0	(19.5-24.6)
<b>Maternal Age</b>				
<20 Years	24	1,233	22.3	(13.1-35.3)
20-29 Years	254	17,075	30.4	(26.6-34.5)
30+ Years	107	5,618	11.9	(9.4-15.0)
<b>Race/Ethnicity</b>				
White, non-Hispanic	188	18,157	24.8	(21.5-28.4)
Black, non-Hispanic	177	4,157	21.5	(18.7-24.6)
Hispanic	10	789	11.0**	(5.2-22.0)
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	9	703	13.1**	(5.8-26.7)
<b>Education</b>				
<High School	88	4,926	43.7	(34.8-52.9)
HS Grad/GED	144	8,907	31.2	(25.7-37.3)
Some College	123	7,761	24.6	(20.2-29.6)
College Degree+	28	2,266	6.1	(4.0-9.3)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	23	2,059	30.8	(20.0-44.3)
Medicaid/Public	212	11,400	38.4	(33.2-44.0)
Private	135	9,502	13.8	(11.3-16.7)
<b>Marital Status</b>				
Married	105	7,674	11.5	(9.2-14.3)
Other	279	16,217	38.3	(33.8-43.0)
<b>Parity</b>				
No previous live birth	120	7,739	20.3	(16.5-24.8)
1	116	7,972	20.4	(16.5-24.9)
2+	149	8,215	25.9	(21.3-31.1)
<b>Last Year's Household Income</b>				
<\$16,000	161	7,848	37.7	(31.5-44.3)
\$16,001-\$24,000	66	4,539	33.4	(25.5-42.4)
\$24,001-\$40,000	40	3,511	22.8	(16.4-30.8)
\$40,001-\$60,000	37	2,574	19.9	(13.9-27.7)
\$60,001+	38	3,017	8.2	(5.8-11.6)

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

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

**Table 36. Prevalence of smoking during the last 3 months of pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	190	11,871	10.9	(9.1-13.0)
<b>Maternal Age</b>				
<20 Years	12	759	13.7**	(6.4-27.0)
20-29 Years	123	8,570	15.3	(12.3-18.9)
30+ Years	55	2,542	5.4	(3.8-7.6)
<b>Race/Ethnicity</b>				
White, non-Hispanic	98	9,362	12.8	(10.3-15.8)
Black, non-Hispanic	84	1,826	9.4	(7.6-11.6)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	6	638	11.9**	(4.9-26.1)
<b>Education</b>				
<High School	51	3,134	27.9	(20.2-37.1)
HS Grad/GED	84	5,409	19.0	(14.4-24.5)
Some College	49	3,099	9.9	(7.0-13.8)
College Degree+	*	*	*	*
<b>Pregnancy Insurance Status</b>				
Medicaid/Public	129	7,931	21.7	(17.6-26.4)
Private	37	2,535	4.0	(2.6-6.0)
<b>Marital Status</b>				
Married	39	2,653	4.0	(2.6-6.0)
Other	150	9,183	21.8	(18.0-26.2)
<b>Parity</b>				
No previous live birth	45	2,858	7.5	(5.1-11.0)
1	59	4,280	11.0	(8.0-14.8)
2+	86	4,732	14.9	(11.3-19.3)
<b>Last Year's Household Income</b>				
<\$16,000	98	5,281	25.3	(19.8-31.6)
\$16,001-\$24,000	31	2,449	18.3	(12.0-26.9)
\$24,001-\$40,000	19	1,659	10.8	(6.4-17.6)
\$40,001-\$60,000	12	576	4.4**	(2.0-9.4)
\$60,001+	7	391	1.1**	(0.4-2.6)

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

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

**Table 37. Prevalence of smoking after pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	284	17,063	15.7	(13.6-18.1)
<b>Maternal Age</b>				
<20 Years	17	984	17.8**	(9.5-30.9)
20-29 Years	184	12,153	21.8	(18.4-25.6)
30+ Years	83	3,926	8.3	(6.3-10.9)
<b>Race/Ethnicity</b>				
White, non-Hispanic	132	12,579	17.3	(14.4-20.5)
Black, non-Hispanic	136	3,147	16.2	(13.7-18.9)
Hispanic	6	514	7.2**	(2.7-17.8)
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	9	703	13.1**	(5.8-26.7)
<b>Education</b>				
<High School	73	4,175	37.1	(28.7-46.4)
HS Grad/GED	112	7,075	24.9	(19.8-30.7)
Some College	84	4,754	15.2	(11.8-19.5)
College Degree+	13	992	2.7**	(1.4-4.9)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	13	1,287	29.9	(16.9-47.2)
Medicaid/Public	186	10,146	26.9	(22.6-31.6)
Private	71	4,815	8.0	(6.0-10.5)
<b>Marital Status</b>				
Married	70	4,944	7.4	(5.6-9.8)
Other	213	12,085	28.9	(24.8-33.5)
<b>Parity</b>				
No previous live birth	84	4,967	13.1	(10.0-17.0)
1	86	6,179	15.9	(12.4-20.1)
2+	114	5,917	18.7	(14.7-23.3)
<b>Last Year's Household Income</b>				
<\$16,000	131	6,774	32.4	(26.5-39.0)
\$16,001-\$24,000	48	3,467	25.8	(18.6-34.7)
\$24,001-\$40,000	26	1,907	12.4	(7.9-19.1)
\$40,001-\$60,000	24	1,384	10.7	(6.6-16.8)
\$60,001+	20	1,542	4.2	(2.6-6.8)

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

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

**Table 38. Prevalence of electronic cigarette usage during the 3 months before pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	51	3,123	2.9	(2.0-4.1)
<b>Maternal Age</b>				
<20 Years	*	*	*	*
20-29 Years	35	2,384	4.3	(2.8-6.5)
30+ Years	11	576	1.2**	(0.6-2.5)
<b>Race/Ethnicity</b>				
White, non-Hispanic	30	2,613	3.6	(2.4-5.4)
Black, non-Hispanic	21	510	2.6	(1.7-4.1)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	*	*	*	*
<b>Education</b>				
<High School	11	425	3.8**	(1.7-8.5)
HS Grad/GED	16	1,079	3.8**	(2.0-7.1)
Some College	17	841	2.7**	(1.4-4.9)
College Degree+	7	779	2.1**	(1.0-4.6)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	*	*	*	*
Medicaid/Public	23	1,009	3.4	(2.0-5.9)
Private	22	1,587	2.3	(1.4-3.9)
<b>Marital Status</b>				
Married	13	781	1.2**	(0.6-2.3)
Other	38	2,341	5.6	(3.7-8.4)
<b>Parity</b>				
No previous live birth	21	1,402	3.7	(2.2-6.4)
1	17	1,161	3.0	(1.6-5.5)
2+	13	559	1.8	(0.9-3.4)
<b>Last Year's Household Income</b>				
<\$16,000	19	614	2.9	(1.6-5.2)
\$16,001-\$24,000	8	562	4.2**	(1.7-10.2)
\$24,001-\$40,000	11	952	6.3**	(3.1-12.2)
\$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 39. Prevalence of electronic cigarette usage during the last 3 months of pregnancy  
MI PRAMS, 2016**

<b>E-cigarette Usage</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
No	1,757	107,239	98.9**	(97.9-99.4)
Yes	14	1,226	1.1**	(0.6-2.1)

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



**Table 40. Prevalence of hookah usage in 2 years before survey completion by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	129	5,366	4.9	(4.0-6.1)
<b>Maternal Age</b>				
<20 Years	17	742	13.4**	(7.1-23.9)
20-29 Years	87	3,807	6.8	(5.2-8.9)
30+ Years	25	817	1.7	(1.1-2.8)
<b>Race/Ethnicity</b>				
White, non-Hispanic	32	2,299	3.1	(2.1-4.7)
Black, non-Hispanic	88	2,358	12.2	(10.0-14.9)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	*	*	*	*
<b>Education</b>				
<High School	15	693	6.2**	(3.3-11.6)
HS Grad/GED	39	1,510	5.3	(3.4-8.1)
Some College	54	2,074	6.6	(4.8-9.1)
College Degree+	21	1,090	2.9	(1.7-5.0)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	9	252	4.0**	(2.0-7.7)
Medicaid/Public	56	2,098	7.0	(5.0-9.8)
Private	62	2,976	4.3	(3.2-5.9)
<b>Marital Status</b>				
Married	35	1,578	2.4	(1.6-3.6)
Other	94	3,788	9.0	(7.0-11.6)
<b>Parity</b>				
No previous live birth	70	2,961	7.8	(5.8-10.5)
1	36	1,668	4.3	(2.8-6.5)
2+	23	736	2.3	(1.4-3.7)
<b>Last Year's Household Income</b>				
<\$16,000	46	1,629	7.8	(5.4-11.2)
\$16,001-\$24,000	18	775	5.7**	(3.0-10.6)
\$24,001-\$40,000	22	1,057	7.0	(4.0-12.0)
\$40,001-\$60,000	12	564	4.3**	(2.2-8.4)
\$60,001+	18	906	2.5	(1.4-4.4)

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

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

**Table 41. Prevalence of marijuana or hash usage in 12 months before pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	247	13,105	12.2	(10.4-14.3)
<b>Maternal Age</b>				
<20 Years	28	1,200	22.1	(13.3-34.2)
20-29 Years	149	7,955	14.6	(11.8-17.8)
30+ Years	70	3,950	8.4	(6.3-11.1)
<b>Race/Ethnicity</b>				
White, non-Hispanic	84	7,718	10.7	(8.4-13.4)
Black, non-Hispanic	147	3,798	20.3	(17.5-23.5)
Hispanic	6	555	7.8**	(3.1-18.2)
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	9	915	17.3**	(8.7-31.5)
<b>Education</b>				
<High School	50	2,558	22.8	(16.0-31.5)
HS Grad/GED	91	4,946	17.9	(13.7-23.1)
Some College	75	3,526	11.3	(8.5-14.8)
College Degree+	30	2,041	5.6	(3.7-8.4)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	16	1,474	22.1	(12.8-35.4)
Medicaid/Public	141	6,229	21.2	(17.1-25.9)
Private	83	4,940	7.3	(5.6-9.5)
<b>Marital Status</b>				
Married	53	3,572	5.4	(3.9-7.4)
Other	193	9,499	23.1	(19.3-27.3)
<b>Parity</b>				
No previous live birth	106	5,456	14.8	(11.6-18.7)
1	66	3,597	9.4	(6.9-12.6)
2+	75	4,053	12.8	(9.5-16.9)
<b>Last Year's Household Income</b>				
<\$16,000	105	4,844	23.2	(18.2-29.2)
\$16,001-\$24,000	43	2,468	18.1	(12.3-25.8)
\$24,001-\$40,000	30	1,856	12.0	(7.6-18.5)
\$40,001-\$60,000	23	1,338	10.6	(6.5-16.6)
\$60,001+	29	1,943	5.3	(3.5-8.1)

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

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

**Table 42. Prevalence of marijuana or hash usage during pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	76	3,890	3.6	(2.7-4.9)
<b>Maternal Age</b>				
<20 Years	6	156	2.9**	(1.2-6.5)
20-29 Years	52	2,744	5.0	(3.5-7.2)
30+ Years	18	990	2.1**	(1.2-3.8)
<b>Race/Ethnicity</b>				
White, non-Hispanic	26	2,265	3.1	(2.0-4.9)
Black, non-Hispanic	42	1,040	5.6	(4.1-7.6)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	6	447	8.5**	(3.5-19.2)
<b>Education</b>				
<High School	29	1,622	5.9**	(3.6-9.7)
HS Grad/GED	24	1,069	3.4	(2.1-5.6)
Some College	*	*	*	*
College Degree+	64	3,084	3.1**	(2.2-4.3)
<b>Pregnancy Insurance Status</b>				
Medicaid/Public	48	2,386	6.6	(4.5-9.5)
Private	16	697	1.1**	(0.6-2.0)
<b>Marital Status</b>				
Married	15	1,289	2.0	(1.1-3.5)
Other	60	2,567	6.2	(4.4-8.7)
<b>Parity</b>				
No previous live birth	24	887	2.4	(1.4-4.1)
1	27	1,584	4.1	(2.6-6.5)
2+	25	1,419	4.5	(2.6-7.6)
<b>Last Year's Household Income</b>				
<\$16,000	39	2,025	9.7	(6.4-14.5)
\$16,001-\$24,000	15	739	5.4**	(2.8-10.3)
\$24,001-\$40,000	8	456	3.0**	(1.2-7.1)
\$40,001-\$60,000	7	349	2.8**	(1.1-6.7)
\$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 43. Prevalence of marijuana or hash usage after pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	103	5,678	5.3	(4.1-6.8)
<b>Maternal Age</b>				
<20 Years	8	510	9.4**	(3.8-21.3)
20-29 Years	63	3,272	6.0	(4.3-8.3)
30+ Years	32	1,896	4.0	(2.6-6.2)
<b>Race/Ethnicity</b>				
White, non-Hispanic	41	3,680	5.1	(3.6-7.2)
Black, non-Hispanic	55	1,334	7.1	(5.5-9.3)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	6	546	10.3**	(4.5-22.0)
<b>Education</b>				
<High School	20	822	7.3**	(4.0-13.1)
HS Grad/GED	38	2,172	7.9	(5.1-12.0)
Some College	29	1,623	5.2	(3.3-8.1)
College Degree+	15	1,026	2.8	(1.6-5.0)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	*	*	*	*
Medicaid/Public	63	3,152	8.4	(6.0-11.6)
Private	31	1,750	3.0	(1.9-4.5)
<b>Marital Status</b>				
Married	27	2,121	3.2	(2.1-5.0)
Other	75	3,522	8.6	(6.3-11.5)
<b>Parity</b>				
No previous live birth	37	1,930	5.2	(3.4-8.0)
1	38	2,254	5.9	(4.0-8.6)
2+	28	1,494	4.7	(2.8-7.8)
<b>Last Year's Household Income</b>				
<\$16,000	37	1,760	8.5	(5.4-13.0)
\$16,001-\$24,000	24	1,713	12.6	(7.7-19.9)
\$24,001-\$40,000	13	568	3.7**	(1.8-7.4)
\$40,001-\$60,000	11	586	4.6**	(2.2-9.4)
\$60,001+	13	864	2.4**	(1.3-4.5)

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

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

**Table 44. Prevalence of opioid pain reliever usage in 12 months before pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	116	6,831	6.4	(5.1-8.0)
<b>Maternal Age</b>				
<20 Years	*	*	*	*
20-29 Years	65	3,692	6.8	(4.9-9.2)
30+ Years	46	2,785	6.0	(4.3-8.3)
<b>Race/Ethnicity</b>				
White, non-Hispanic	61	5,289	7.3	(5.5-9.7)
Black, non-Hispanic	51	1,362	7.3	(5.5-9.5)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	*	*	*	*
<b>Education</b>				
<High School	14	819	7.3**	(3.7-14.1)
HS Grad/GED	32	1,912	6.9	(4.4-10.7)
Some College	44	2,237	7.2	(4.9-10.4)
College Degree+	26	1,863	5.2	(3.3-7.9)
<b>Pre-Pregnancy Insurance Status</b>				
Uninsured	8	480	7.2**	(2.8-17.5)
Medicaid/Public	53	2,645	9.0	(6.3-12.8)
Private	51	3,293	4.9	(3.5-6.8)
<b>Marital Status</b>				
Married	49	3,265	5.0	(3.6-6.9)
Other	67	3,567	8.7	(6.3-11.8)
<b>Parity</b>				
No previous live birth	34	1,829	5.0	(3.2-7.6)
1	44	2,944	7.7	(5.4-10.9)
2+	38	2,058	6.5	(4.3-9.8)
<b>Last Year's Household Income</b>				
<\$16,000	39	1,441	6.9	(4.4-10.7)
\$16,001-\$24,000	18	1,139	8.3**	(4.6-14.7)
\$24,001-\$40,000	8	470	3.1**	(1.3-7.0)
\$40,001-\$60,000	9	632	5.0**	(2.3-10.4)
\$60,001+	29	2,319	6.4	(4.3-9.5)

\*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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	78	4,970	4.6	(3.5-6.1)
<b>Maternal Age</b>				
<20 Years	*	*	*	*
20-29 Years	41	2,371	4.3	(2.9-6.5)
30+ Years	33	2,306	4.9	(3.3-7.4)
<b>Race/Ethnicity</b>				
White, non-Hispanic	41	3,776	5.2	(3.7-7.4)
Black, non-Hispanic	32	842	4.5	(3.2-6.4)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	*	*	*	*
<b>Education</b>				
<High School	10	742	6.6	(3.1-13.6)
HS Grad/GED	30	2,158	7.8	(5.0-11.9)
Some College	29	1,504	4.8	(3.0-7.7)
College Degree+	9	566	1.6**	(0.7-3.4)
<b>Pregnancy Insurance Status</b>				
Medicaid/Public	42	2,474	6.8	(4.6-9.9)
Private	28	1,917	3.1	(1.9-4.8)
<b>Marital Status</b>				
Married	31	2,244	3.4	(2.2-5.2)
Other	47	2,725	6.6	(4.5-9.5)
<b>Parity</b>				
No previous live birth	24	1,529	4.1	(2.5-6.8)
1	25	1,644	4.3	(2.6-7.0)
2+	29	1,796	5.7	(3.6-8.9)
<b>Last Year's Household Income</b>				
<\$16,000	28	1,244	6.0	(3.6-9.8)
\$16,001-\$24,000	11	937	6.9*	(3.4-13.6)
\$24,001-\$40,000	10	587	3.8*	(1.7-8.4)
\$40,001-\$60,000	7	690	5.4*	(2.4-11.8)
\$60,001+	10	745	2.1*	(1.0-4.2)

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

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

**Table 46. Prevalence of opioid pain reliever usage after pregnancy by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	385	25,230	23.6	(21.1-26.2)
<b>Maternal Age</b>				
<20 Years	13	557	10.3**	(4.8-20.7)
20-29 Years	181	11,582	21.1	(17.8-24.9)
30+ Years	191	13,092	27.9	(24.1-32.1)
<b>Race/Ethnicity</b>				
White, non-Hispanic	203	18,834	26.0	(22.7-29.6)
Black, non-Hispanic	141	3,529	18.9	(16.2-22.0)
Hispanic	17	1,294	18.0	(10.4-29.3)
Asian/Pacific Islander, non-Hispanic	13	824	23.9	(12.9-39.9)
Other, non-Hispanic	10	724	13.7**	(6.5-26.6)
<b>Education</b>				
<High School	38	2,336	20.8	(14.2-29.6)
HS Grad/GED	79	5,429	19.6	(15.0-25.2)
Some College	137	8,372	26.8	(22.3-31.8)
College Degree+	130	9,074	24.9	(20.8-29.6)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	10	1,099	24.6**	(12.8-42.1)
Medicaid/Public	148	7,862	21.0	(17.2-25.3)
Private	212	15,295	25.8	(22.4-29.5)
<b>Marital Status</b>				
Married	226	16,647	25.2	(22.0-28.7)
Other	159	8,583	20.9	(17.2-25.2)
<b>Parity</b>				
No previous live birth	137	8,744	23.6	(19.6-28.2)
1	125	9,256	24.1	(20.0-28.7)
2+	123	7,230	22.8	(18.4-27.8)
<b>Last Year's Household Income</b>				
<\$16,000	77	3,430	16.6	(12.4-21.9)
\$16,001-\$24,000	53	3,231	23.6	(16.9-32.0)
\$24,001-\$40,000	49	3,735	24.3	(17.9-32.0)
\$40,001-\$60,000	43	3,265	25.6	(18.5-34.2)
\$60,001+	129	9,503	26.1	(21.9-30.9)

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

**Table 47. Distribution of delivery methods,  
MI PRAMS, 2016**

<b>Method</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Vaginal	1,141	73,227	66.7	(63.9-69.4)
First C-section	390	20,315	18.5	(16.4-20.8)
Repeat C-Section	229	13,868	12.6	(10.8-14.8)
Forceps delivery	*	*	*	*
Vacuum delivery	38	2,620	2.4	(1.6-3.5)

\*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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	349	8,309	7.6	(7.4-7.7)
<b>Maternal Age</b>				
<20 Years	17	432	7.8	(4.7-12.5)
20-29 Years	189	4,460	7.9	(7.1-8.8)
30+ Years	143	3,417	7.2	(6.3-8.2)
<b>Race/Ethnicity</b>				
White, non-Hispanic	192	4,296	5.8	(5.3-6.4)
Black, non-Hispanic	99	2,773	14.0	(12.1-16.2)
Hispanic	23	491	6.8	(4.4-10.6)
Asian/Pacific Islander, non-Hispanic	15	292	8.2	(4.7-13.9)
Other, non-Hispanic	19	431	8.0	(4.9-12.9)
<b>Education</b>				
<High School	49	1,203	10.5	(7.8-13.9)
HS Grad/GED	84	2,190	7.6	(6.2-9.3)
Some College	102	2,573	8.1	(6.8-9.6)
College Degree+	109	2,217	6.0	(5.1-7.1)
<b>Pregnancy Insurance Status</b>				
Medicaid/Public	140	3,651	9.8	(8.5-11.3)
Private	173	3,731	5.8	(5.2-6.5)
<b>Marital Status</b>				
Married	185	3,789	5.7	(5.1-6.3)
Other	162	4,459	10.4	(9.2-11.8)
<b>Parity</b>				
No previous live birth	155	3,611	9.4	(8.2-10.7)
1	88	2,084	5.3	(4.4-6.4)
2+	106	2,614	8.1	(6.8-9.7)
<b>Last Year's Household Income</b>				
<\$16,000	94	2,471	11.8	(9.7-14.3)
\$16,001-\$24,000	37	907	6.6	(4.7-9.1)
\$24,001-\$40,000	42	996	6.4	(4.7-8.7)
\$40,001-\$60,000	41	964	7.4	(5.4-10.1)
\$60,001+	100	2,058	5.6	(4.7-6.7)

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

**Table 49. Distribution of low birthweight subcategories<sup>^</sup> among low birthweight infants, MI PRAMS, 2016**

Low Birthweight Subcategory	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total Prevalence</b>	349	8,309	7.6	(7.4-7.7)
Very low birthweight	61	1,407	16.9	(13.4-21.2)
Moderately low birthweight	288	6,902	83.1	(78.8-86.6)

<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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	347	8,264	7.6	(7.4-7.8)
<b>Smoking status</b>				
Did not smoke in last 3 months of pregnancy	291	6,749	7.0	(6.6-7.3)
Smoked last 3 months of pregnancy	56	1,515	12.8	(9.6-16.7)

<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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	115	10,247	9.3	(7.6-11.3)
<b>Maternal Age</b>				
<20 Years	*	*	*	*
20-29 Years	58	5,073	8.9	(6.7-11.9)
30+ Years	53	4,823	10.1	(7.7-13.3)
<b>Race/Ethnicity</b>				
White, non-Hispanic	70	8,142	11.0	(8.8-13.8)
Black, non-Hispanic	34	677	3.4	(2.4-4.9)
Hispanic	6	841	11.7**	(5.4-23.7)
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	*	*	*	*
<b>Education</b>				
<High School	*	*	*	*
HS Grad/GED	29	2,967	10.3	(6.8-15.4)
Some College	37	2,642	8.3	(5.7-11.9)
College Degree+	48	4,517	12.2	(9.2-16.1)
<b>Pregnancy Insurance Status</b>				
Medicaid/Public	25	1,949	5.2	(3.2-8.4)
Private	81	7,699	12.0	(9.6-14.9)
<b>Marital Status</b>				
Married	78	7,702	11.5	(9.2-14.3)
Other	37	2,545	6.0	(3.9-8.9)
<b>Parity</b>				
No previous live birth	37	3,078	8.0	(5.5-11.4)
1	38	3,748	9.6	(6.8-13.2)
2+	40	3,421	10.7	(7.6-14.8)
<b>Last Year's Household Income</b>				
<\$16,000	15	1,151	8.4**	(4.4-15.5)
\$16,001-\$24,000	23	1,808	11.7	(7.2-18.4)
\$24,001-\$40,000	12	1,097	8.5	(4.7-14.8)
\$40,001-\$60,000	44	4,597	12.6	(9.4-16.6)
\$60,001+	15	1,151	8.4	(4.4-15.5)

<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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	114	10,086	9.3	(7.6-11.4)
<b>Diabetes status</b>				
No diabetes before or during pregnancy	91	8,074	8.7	(6.9-10.8)
Diabetes before pregnancy	8	868	15.3**	(7.6-28.4)
Gestational diabetes	15	1,143	12.4	(6.9-21.3)

<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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
Infant both low birthweight and preterm	243	5,685	5.2	(4.8-5.6)
Infant low birthweight and term	106	2,624	2.4	(2.0-2.8)
Infant not low birthweight, yes preterm	59	4,303	3.9	(2.9-5.3)
Infant not low birthweight, yes term	1,390	97,176	88.5	(87.2-89.7)

<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, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	302	9,988	9.1	(7.9-10.4)
<b>Maternal Age</b>				
<20 Years	14	621	11.2**	(5.3-22.1)
20-29 Years	163	5,236	9.2	(7.6-11.2)
30+ Years	125	4,131	8.7	(7.0-10.8)
<b>Race/Ethnicity</b>				
White, non-Hispanic	158	5,556	7.5	(6.1-9.2)
Black, non-Hispanic	93	2,427	12.3	(10.3-14.6)
Hispanic	19	784	10.9**	(5.6-20.3)
Asian/Pacific Islander, non-Hispanic	15	541	15.2**	(7.6-28.0)
Other, non-Hispanic	17	680	12.6**	(6.4-23.3)
<b>Education</b>				
<High School	36	1,029	9.0	(5.9-13.4)
HS Grad/GED	86	3,241	11.3	(8.4-15.0)
Some College	79	2,707	8.5	(6.4-11.1)
College Degree+	97	2,905	7.8	(6.1-10.1)
<b>Pregnancy Insurance Status</b>				
Medicaid/Public	111	3,512	9.4	(7.4-11.9)
Private	160	5,615	8.8	(7.1-10.7)
<b>Marital Status</b>				
Married	162	5,238	7.8	(6.4-9.5)
Other	138	4,689	11.0	(8.9-13.5)
<b>Parity</b>				
No previous live birth	120	3,676	9.5	(7.5-12.0)
1	83	3,326	8.5	(6.4-11.3)
2+	99	2,986	9.3	(7.3-11.8)
<b>Last Year's Household Income</b>				
<\$16,000	81	2,473	11.8	(9.0-15.4)
\$16,001-\$24,000	27	1,096	8.0	(4.7-13.3)
\$24,001-\$40,000	38	1,313	8.5	(5.5-12.9)
\$40,001-\$60,000	31	1,231	9.5	(5.8-15.1)
\$60,001+	91	2,868	7.8	(6.0-10.1)

<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,  
MI PRAMS, 2016**

<b>Breastfeeding duration categories</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Did not Breastfeed	310	17,153	16.0	(13.9-18.3)
Breastfed at least 4 weeks	1,155	75,246	70.0	(67.2-72.7)
Breastfed at least 8 weeks	1,005	66,820	62.2	(59.2-65.0)
Breastfed at least 12 weeks	851	59,210	55.8	(52.8-58.8)

**Table 56. Reasons for not initiating breastfeeding,  
MI PRAMS, 2016**

<b>Reasons for not initiating breastfeeding</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Reasons (non-exclusive)</b>				
Mom did not want to breastfeed	152	7,660	43	(36.0-50.4)
Mom did not like breastfeeding	106	4,981	28	(22.1-34.8)
Mom had other children to take care of	83	4,023	22.6	(17.1-29.2)
Mom returned to work	62	2,593	14.6	(10.5-20.0)
Mom tried but it was too hard	58	3,030	17	(12.1-23.4)
Mom had too many other household duties	51	2,560	14.4	(10.0-20.2)
Mom was sick or on medicine	45	3,077	17.3	(12.3-23.7)
Mom returned to school	21	832	4.7	(2.6-8.2)
Baby was in the hospital	14	696	3.9**	(1.9-7.7)
Other	56	3,367	18.9	(13.7-25.6)

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

**Table 57. Cumulative number of reasons for not initiating breastfeeding,  
MI PRAMS, 2016**

	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
0-1 reason	153	9,938	55.8	(48.5-62.9)
2 reasons	67	3,118	17.5	(12.8-23.4)
3 reasons	46	2,492	14.0	(9.6-20.0)
4+ reasons	52	2,252	12.7	(8.8-17.9)

**Table 58. Prevalence of breastfeeding initiation by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,421	90,103	84.0	(81.7-86.1)
<b>Maternal Age</b>				
<20 Years	79	4,158	76.5	(63.8-85.7)
20-29 Years	751	44,424	80.8	(77.2-84.0)
30+ Years	591	41,520	88.6	(85.6-91.0)
<b>Race/Ethnicity</b>				
White, non-Hispanic	654	61,667	85.1	(82.0-87.8)
Black, non-Hispanic	602	14,519	77.0	(73.8-79.9)
Hispanic	67	6,118	85.5**	(73.7-92.5)
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	52	4,422	86.8**	(72.8-94.2)
<b>Education</b>				
<High School	127	7,061	64.1	(54.7-72.5)
HS Grad/GED	327	20,625	74.5	(68.7-79.6)
Some College	484	27,450	87.8	(84.0-90.7)
College Degree+	472	34,387	93.8	(90.8-95.9)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	49	3,774	85.5**	(69.6-93.8)
Medicaid/Public	549	28,096	74.8	(70.2-78.8)
Private	756	53,894	90.6	(87.9-92.7)
<b>Marital Status</b>				
Married	793	59,812	90.9	(88.3-92.9)
Other	627	30,265	73.2	(68.8-77.1)
<b>Parity</b>				
No previous live birth	544	32,639	86.9	(83.2-90.0)
1	468	33,430	87.2	(83.3-90.3)
2+	409	24,033	76.6	(71.6-80.9)
<b>Last Year's Household Income</b>				
<\$16,000	306	14,658	71.7	(65.4-77.2)
\$16,001-\$24,000	188	10,704	79.5	(71.3-85.9)
\$24,001-\$40,000	219	13,260	87.1	(80.2-91.9)
\$40,001-\$60,000	161	11,354	87.7	(81.0-92.2)
\$60,001+	423	33,539	92.8	(89.6-95.1)

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

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

**Table 59. Prevalence of 1-month breastfeeding duration by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,155	75,246	70.0	(67.2-72.7)
<b>Maternal Age</b>				
<20 Years	50	2,736	50.3	(37.2-63.4)
20-29 Years	600	36,709	66.5	(62.4-70.4)
30+ Years	505	35,802	76.4	(72.5-79.9)
<b>Race/Ethnicity</b>				
White, non-Hispanic	556	52,461	72.3	(68.6-75.7)
Black, non-Hispanic	456	10,990	58.3	(54.7-61.9)
Hispanic	55	4,804	67.1	(53.8-78.2)
Asian/Pacific Islander, non-Hispanic	42	3,118	87.4**	(71.8-95.0)
Other, non-Hispanic	44	3,726	71.4	(56.5-82.8)
<b>Education</b>				
<High School	84	4,804	43.6	(34.5-53.2)
HS Grad/GED	247	15,896	57.0	(50.6-63.1)
Some College	388	22,373	71.6	(66.6-76.0)
College Degree+	428	31,670	86.4	(82.6-89.5)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	38	3,136	71.0	(54.5-83.4)
Medicaid/Public	411	20,823	55.4	(50.5-60.3)
Private	658	48,017	80.5	(77.1-83.5)
<b>Marital Status</b>				
Married	697	52,642	79.7	(76.3-82.7)
Other	457	22,579	54.6	(49.9-59.2)
<b>Parity</b>				
No previous live birth	442	26,810	71.2	(66.4-75.6)
1	386	28,612	74.6	(70.0-78.8)
2+	327	19,824	63.0	(57.6-68.1)
<b>Last Year's Household Income</b>				
<\$16,000	220	10,399	50.9	(44.3-57.4)
\$16,001-\$24,000	144	8,227	61.1	(52.2-69.4)
\$24,001-\$40,000	180	11,086	72.3	(64.4-79.0)
\$40,001-\$60,000	133	9,775	75.5	(67.6-82.0)
\$60,001+	382	30,405	84.2	(80.0-87.6)

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



**Table 60. Prevalence of 2-month breastfeeding duration by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	1,005	66,820	62.2	(59.2-65.0)
<b>Maternal Age</b>				
<20 Years	39	1,972	36.3	(24.5-49.9)
20-29 Years	505	31,795	57.6	(53.4-61.7)
30+ Years	461	33,053	70.5	(66.4-74.4)
<b>Race/Ethnicity</b>				
White, non-Hispanic	498	47,224	65.1	(61.2-68.8)
Black, non-Hispanic	385	9,267	49.2	(45.5-52.8)
Hispanic	44	4,036	56.4	(43.3-68.7)
Asian/Pacific Islander, non-Hispanic	40	2,980	83.6**	(67.5-92.6)
Other, non-Hispanic	36	3,167	60.7	(46.0-73.7)
<b>Education</b>				
<High School	71	4,217	38.3	(29.5-47.9)
HS Grad/GED	200	13,367	47.9	(41.6-54.2)
Some College	329	19,040	60.9	(55.7-65.9)
College Degree+	399	29,750	81.2	(76.9-84.8)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	33	2,661	60.3	(43.7-74.8)
Medicaid/Public	342	17,538	46.7	(41.8-51.7)
Private	592	44,170	74.1	(70.4-77.4)
<b>Marital Status</b>				
Married	638	48,507	73.4	(69.8-76.7)
Other	366	18,287	44.2	(39.6-49.0)
<b>Parity</b>				
No previous live birth	377	22,888	60.8	(55.7-65.6)
1	340	26,089	68.1	(63.2-72.6)
2+	288	17,842	56.7	(51.2-62.0)
<b>Last Year's Household Income</b>				
<\$16,000	170	7,954	38.9	(32.7-45.5)
\$16,001-\$24,000	124	7,097	52.7	(43.9-61.4)
\$24,001-\$40,000	152	9,984	65.1	(57.1-72.3)
\$40,001-\$60,000	120	8,774	67.8	(59.3-75.2)
\$60,001+	354	28,160	78.0	(73.3-82.0)

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

**Table 61. Prevalence of 3-month breastfeeding duration by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	851	59,210	55.8	(52.8-58.8)
<b>Maternal Age</b>				
<20 Years	31	1,416	26.8	(16.7-40.1)
20-29 Years	406	27,004	49.8	(45.5-54.0)
30+ Years	414	30,789	66.1	(61.8-70.1)
<b>Race/Ethnicity</b>				
White, non-Hispanic	441	42,292	59.1	(55.1-63.0)
Black, non-Hispanic	300	7,187	38.5	(35.0-42.2)
Hispanic	38	3,676	52.6	(39.6-65.3)
Asian/Pacific Islander, non-Hispanic	36	2,801	78.6**	(62.3-89.0)
Other, non-Hispanic	34	3,106	59.9	(45.2-73.0)
<b>Education</b>				
<High School	47	2,764	25.9	(18.3-35.2)
HS Grad/GED	152	10,754	39.1	(33.0-45.5)
Some College	274	16,753	54.1	(48.8-59.3)
College Degree+	374	28,545	78.7	(74.2-82.5)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	23	1,938	45.8	(30.2-62.3)
Medicaid/Public	269	14,487	38.9	(34.2-43.9)
Private	526	40,458	68.5	(64.6-72.1)
<b>Marital Status</b>				
Married	574	44,462	68.0	(64.2-71.6)
Other	276	14,722	36.2	(31.7-40.9)
<b>Parity</b>				
No previous live birth	325	20,655	55.6	(50.5-60.5)
1	287	23,238	61.6	(56.5-66.4)
2+	239	15,318	49.1	(43.6-54.6)
<b>Last Year's Household Income</b>				
<\$16,000	127	6,380	31.8	(25.9-38.4)
\$16,001-\$24,000	91	5,437	40.5	(32.2-49.3)
\$24,001-\$40,000	130	8,787	58.0	(49.8-65.7)
\$40,001-\$60,000	109	8,069	63.0	(54.4-71.0)
\$60,001+	329	26,678	74.7	(70.0-79.0)

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

**Table 62. Reasons for stopping breastfeeding,  
MI PRAMS, 2016**

<b>Reasons (non-exclusive)</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Wasn't Producing Enough Milk	376	21,853	57.1	(52.2-61.8)
Breastmilk Didn't Satisfy Baby	230	14,604	38.4	(33.7-43.4)
Baby Had Difficulty Nursing or Latching	215	12,158	31.7	(27.3-36.5)
Nipples Were Sore, Cracked, or Bleeding	177	9,661	25.2	(21.2-29.7)
Went Back to Work	178	8,877	23.3	(19.4-27.7)
Too Many Household Duties	136	7,184	18.8	(15.2-22.9)
It Was Right Time to Stop	114	5,639	14.7	(11.6-18.5)
Baby Wasn't Gaining Weight	90	5,384	14.1	(10.9-18.1)
I Was Sick	61	3,542	9.3	(6.8-12.6)
Baby Was Jaundiced	47	2,556	6.7	(4.6-9.6)
Went Back to School	42	1,733	4.5	(2.9-6.9)
Partner Didn't Support	15	596	1.6**	(0.8-3.1)
Other	119	6,576	17.2	(13.8-21.2)

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

**Table 63. Breastfeeding information sources before or after delivery,  
MI PRAMS, 2016**

<b>Information source (non-exclusive)</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Mom's doctor	1,440	86,507	81.9	(79.4-84.2)
Nurse or midwife	1,291	79,390	76.0	(73.3-78.5)
Breastfeeding or lactation specialist	1,247	74,491	71.1	(68.3-73.8)
Baby's doctor	1,175	70,236	68.4	(65.4-71.2)
Family or friends	1,009	63,097	60.8	(57.8-63.7)
Breastfeeding support group	459	25,194	24.6	(22.1-27.3)
Hotline or toll-free number	191	10,940	10.8	(9.0-12.8)
Other	230	13,833	16.7	(14.3-19.5)

**Table 64. Total number of breastfeeding information sources,  
MI PRAMS, 2016**

<b>Number of sources of breastfeeding information</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
0-1	154	10,619	9.9	(8.2-11.9)
2-3	450	28,919	26.9	(24.3-29.6)
4-5	791	50,357	46.8	(43.8-49.8)
6+	337	17,668	16.4	(14.4-18.7)

**Table 65. Did mother ever use a breast pump,  
MI PRAMS, 2016**

<b>Breast pump usage</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Yes	1,254	82,076	91.2	(89.3-92.8)
No	161	7,871	8.8	(7.2-10.7)

**Table 66. Source of breast pump,  
MI PRAMS, 2016**

<b>Breast Pump Source (non-exclusive)</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Free from hospital	409	22,532	27.3	(24.4-30.4)
Bought new from store or online	243	15,817	19.2	(16.6-22.0)
Had one from previous child	171	13,772	16.7	(14.2-19.5)
Previously used by someone else	101	7,082	8.6	(6.8-10.8)
Bought new from hospital or doctor's office	100	6,602	8.0	(6.3-10.1)
New from WIC	80	4,845	5.9	(4.4-7.8)
New as a gift	72	4,495	5.4	(4.0-7.3)
Rented from hospital or doctor's office	43	1,969	2.4	(1.6-3.5)
Other	381	27,340	33.1	(29.9-36.4)

**Table 67. Prevalence of ever using a breast pump by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	1,254	82,076	91.2	(89.3-92.8)
<b>Maternal Age</b>				
<20 Years	61	3,623	91.4	(85.1-95.1)
20-29 Years	646	39,145	87.7	(84.4-90.4)
30+ Years	547	39,308	95.1	(92.7-96.7)
<b>Race/Ethnicity</b>				
White, non-Hispanic	619	58,043	94.3	(91.9-96.0)
Black, non-Hispanic	487	11,658	80.6	(77.1-83.8)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	35	2,491	79.9**	(61.3-90.9)
Other, non-Hispanic	48	3,940	86.7**	(72.0-94.3)
<b>Education</b>				
<High School	91	5,263	76.5	(65.6-84.8)
HS Grad/GED	269	17,847	85.6	(80.2-89.7)
Some College	438	25,635	93.7	(90.8-95.7)
College Degree+	449	32,867	95.9	(93.2-97.6)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	43	3,181	84.3**	(66.0-93.7)
Medicaid/Public	454	24,069	86.2	(82.1-89.4)
Private	706	51,304	95.4	(93.4-96.8)
<b>Marital Status</b>				
Married	742	55,845	93.3	(90.8-95.1)
Other	511	26,206	87.2	(83.8-90.0)
<b>Parity</b>				
No previous live birth	493	30,428	93.5	(90.5-95.6)
1	420	30,754	92.4	(89.3-94.7)
2+	341	20,895	86.6	(82.0-90.2)
<b>Last Year's Household Income</b>				
<\$16,000	239	11,851	81.7	(75.2-86.7)
\$16,001-\$24,000	163	9,634	90.0	(83.4-94.2)
\$24,001-\$40,000	197	12,185	91.8	(86.0-95.4)
\$40,001-\$60,000	149	10,597	93.5	(87.4-96.7)
\$60,001+	405	32,115	95.9	(93.0-97.6)

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

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

**Table 68. Baby health indicators,  
MI PRAMS, 2016**

<b>Health Indicators</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Baby got breast milk from source other than mom	147	6,722	6.4	(5.1-7.9)
Baby has a doctor, nurse, or medical practice where he or she is seen on a regular basis	1,555	98,642	93.8	(92.3-95.0)
Baby will see a dentist by his or her first birthday	1,139	63,309	62.4	(59.3-65.3)

**Table 69. Distribution of WIC status during pregnancy,  
MI PRAMS, 2016**

<b>WIC Status</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
^No	936	66,113	60.7	(57.8-63.5)
Yes	846	42,824	39.3	(36.5-42.2)

^ This variable is for any WIC participation. Women 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, 2016**

Baby Sleep - Alone	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
Always	1,042	67,647	63.4	(60.4-66.2)
Often/Almost Always	315	18,866	17.7	(15.5-20.1)
Sometimes	159	8,702	8.2	(6.7-9.9)
Rarely	89	4,643	4.3	(3.3-5.7)
Never	114	6,885	6.5	(5.1-8.1)

**Table 71. Infant slept in his/her own crib or bed in mother's room,  
MI PRAMS, 2016**

Baby in Room with Mom	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
Yes	1,251	73,036	73.4	(70.5-76.1)
No	344	26,518	26.6	(23.9-29.5)

**Table 72. Infant sleep space characteristics,  
MI PRAMS, 2016**

Baby Sleep Space	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Characteristics (non-exclusive)</b>				
Crib/Bassinet	1,561	97,924	92.2	(90.5-93.7)
Car Seat/Swing	810	54,867	52.6	(49.5-55.6)
With Blanket	671	41,573	40.2	(37.3-43.3)
Sleep Sack/Wearable Blanket	520	37,000	35.7	(32.8-38.7)
Mattress/Bed	469	25,380	24.4	(21.9-27.1)
With Bumper Pads	228	15,471	15.0	(12.9-17.4)
Couch/Sofa	161	8,203	7.9	(6.5-9.6)
With Toys, Cushions, Pillows	90	5,842	5.6	(4.4-7.3)

**Table 73. Primary infant sleep position,  
MI PRAMS, 2016**

Primary Infant Sleep Position	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
Back	1,330	87,760	81.9	(79.6-84.0)
Stomach	173	8,364	7.8	(6.4-9.5)
Side	138	7,471	7.0	(5.6-8.6)
Side/Back	40	1,938	1.8	(1.2-2.7)
Side/Stomach	8	204	0.2**	(0.1-0.4)
Back/Stomach	13	572	0.5**	(0.3-1.1)
All 3 Positions	21	782	0.7**	(0.4-1.4)

\*\*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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,357	86,513	81.0	(78.6-83.3)
<b>Maternal Age</b>				
<20 Years	78	3,900	72.4	(58.9-82.8)
20-29 Years	728	45,006	81.8	(78.4-84.7)
30+ Years	551	37,607	81.2	(77.4-84.5)
<b>Race/Ethnicity</b>				
White, non-Hispanic	643	61,145	85.0	(81.9-87.7)
Black, non-Hispanic	568	13,626	72.8	(69.4-75.9)
Hispanic	61	5,139	71.8	(58.4-82.3)
Asian/Pacific Islander, non-Hispanic	35	2,390	68.8	(52.0-81.8)
Other, non-Hispanic	48	4,066	76.0	(61.4-86.3)
<b>Education</b>				
<High School	162	8,959	82.0	(73.9-88.0)
HS Grad/GED	345	22,079	79.9	(74.5-84.4)
Some College	426	24,417	78.5	(73.8-82.6)
College Degree+	415	30,717	84.3	(80.2-87.7)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	38	3,002	68.3	(51.5-81.3)
Medicaid/Public	569	28,776	77.3	(72.8-81.2)
Private	678	49,965	84.3	(81.2-86.9)
<b>Marital Status</b>				
Married	713	55,230	84.1	(81.1-86.7)
Other	642	31,223	76.2	(71.9-80.0)
<b>Parity</b>				
No previous live birth	483	29,292	78.6	(74.1-82.5)
1	433	31,405	82.4	(78.3-85.8)
2+	441	25,816	82.4	(77.7-86.2)
<b>Last Year's Household Income</b>				
<\$16,000	343	15,964	79.6	(73.8-84.4)
\$16,001-\$24,000	177	9,957	73.1	(64.6-80.2)
\$24,001-\$40,000	184	12,291	80.1	(72.9-85.7)
\$40,001-\$60,000	139	10,442	82.2	(74.9-87.7)
\$60,001+	379	30,106	83.6	(79.3-87.1)

**Table 75. Prevalence of infant sleeping alone in his/her own crib or bed in the same room as mother by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,251	73,036	73.4	(70.5-76.1)
<b>Maternal Age</b>				
<20 Years	92	4,257	84.6**	(70.3-92.8)
20-29 Years	707	40,020	78.0	(74.0-81.5)
30+ Years	452	28,758	66.6	(62.0-70.8)
<b>Race/Ethnicity</b>				
White, non-Hispanic	472	45,634	67.4	(63.5-71.0)
Black, non-Hispanic	631	15,088	88.0	(85.2-90.3)
Hispanic	66	5,810	89.2**	(77.7-95.1)
Asian/Pacific Islander, non-Hispanic	37	2,703	84.7**	(68.8-93.3)
Other, non-Hispanic	43	3,654	75.8	(60.1-86.6)
<b>Education</b>				
<High School	187	9,528	91.9**	(83.2-96.3)
HS Grad/GED	363	21,719	82.6	(76.9-87.2)
Some College	399	21,002	72.9	(67.6-77.6)
College Degree+	292	20,232	60.5	(55.2-65.6)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	*	*	*	*
Medicaid/Public	606	28,510	81.1	(76.4-85.1)
Private	530	36,482	66.1	(62.0-69.9)
<b>Marital Status</b>				
Married	571	42,823	69.1	(65.3-72.7)
Other	679	30,187	80.4	(75.8-84.3)
<b>Parity</b>				
No previous live birth	432	23,750	69.0	(63.9-73.8)
1	386	25,588	72.4	(67.3-76.9)
2+	433	23,698	79.5	(74.5-83.8)
<b>Last Year's Household Income</b>				
<\$16,000	368	16,697	87.3	(81.6-91.4)
\$16,001-\$24,000	190	10,299	82.6	(74.0-88.9)
\$24,001-\$40,000	190	12,328	84.7	(77.8-89.8)
\$40,001-\$60,000	121	8,718	72.9	(64.2-80.2)
\$60,001+	253	18,992	57.5	(52.0-62.7)

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

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

**Table 76. Prevalence of infant usually sleeping in a crib^ by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	1,561	97,924	92.2	(90.5-93.7)
<b>Maternal Age</b>				
<20 Years	98	4,664	85.9**	(73.6-93.1)
20-29 Years	848	51,526	94.0	(91.8-95.6)
30+ Years	615	41,734	90.9	(87.9-93.2)
<b>Race/Ethnicity</b>				
White, non-Hispanic	709	67,901	94.7	(92.7-96.3)
Black, non-Hispanic	695	16,750	89.6	(87.1-91.6)
Hispanic	66	5,882	83.6**	(71.1-91.4)
Asian/Pacific Islander, non-Hispanic	36	2,630	80.1**	(63.2-90.4)
Other, non-Hispanic	53	4,615	86.6**	(72.4-94.1)
<b>Education</b>				
<High School	187	10,064	93.0**	(86.5-96.5)
HS Grad/GED	403	25,375	92.0	(88.3-94.7)
Some College	506	28,431	91.8	(88.3-94.4)
College Degree+	455	33,579	92.9	(89.7-95.1)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	42	3,072	69.9	(52.9-82.8)
Medicaid/Public	676	34,317	92.7	(89.7-94.9)
Private	762	55,025	93.4	(91.2-95.1)
<b>Marital Status</b>				
Married	789	60,300	92.9	(90.6-94.7)
Other	770	37,564	91.2	(88.2-93.5)
<b>Parity</b>				
No previous live birth	563	33,908	91.6	(88.5-94.0)
1	502	35,201	92.7	(89.6-95.0)
2+	496	28,815	92.3	(88.8-94.8)
<b>Last Year's Household Income</b>				
<\$16,000	405	19,226	94.8	(91.7-96.7)
\$16,001-\$24,000	204	11,445	85.9	(78.3-91.2)
\$24,001-\$40,000	217	13,887	92.2	(86.5-95.6)
\$40,001-\$60,000	159	11,736	92.4	(87.0-95.6)
\$60,001+	421	33,282	92.7	(89.4-95.0)

^Wording in question is "crib, bassinet, or pack and play".

\*\*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, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	469	25,380	24.4	(21.9-27.1)
<b>Maternal Age</b>				
<20 Years	44	2,200	41.1	(28.5-54.9)
20-29 Years	266	12,998	24.3	(20.9-28.0)
30+ Years	159	10,182	22.5	(19.0-26.6)
<b>Race/Ethnicity</b>				
White, non-Hispanic	136	13,864	19.7	(16.6-23.1)
Black, non-Hispanic	283	6,741	37.0	(33.5-40.7)
Hispanic	22	2,451	34.3	(22.9-47.7)
Asian/Pacific Islander, non-Hispanic	17	1,100	35.5	(21.3-52.8)
Other, non-Hispanic	11	1,224	24.7	(13.9-39.9)
<b>Education</b>				
<High School	58	2,785	26.7	(19.1-35.9)
HS Grad/GED	144	7,709	28.4	(23.1-34.4)
Some College	155	7,512	24.7	(20.5-29.5)
College Degree+	109	7,101	20.1	(16.3-24.5)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	26	1,857	43.7	(28.3-60.5)
Medicaid/Public	227	10,398	28.7	(24.4-33.4)
Private	194	11,685	20.2	(17.2-23.6)
<b>Marital Status</b>				
Married	185	13,056	20.4	(17.4-23.7)
Other	283	12,298	30.8	(26.6-35.4)
<b>Parity</b>				
No previous live birth	189	10,097	27.7	(23.4-32.4)
1	145	8,422	22.8	(18.9-27.4)
2+	135	6,861	22.4	(18.1-27.3)
<b>Last Year's Household Income</b>				
<\$16,000	124	5,200	27.0	(21.5-33.3)
\$16,001-\$24,000	84	4,314	32.0	(24.5-40.7)
\$24,001-\$40,000	63	3,657	24.9	(18.4-32.9)
\$40,001-\$60,000	49	2,652	21.1	(14.9-28.9)
\$60,001+	94	7,307	20.7	(16.8-25.3)

**Table 78. Prevalence of infant usually sleeping on a couch, sofa, or armchair by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	161	8,203	7.9	(6.5-9.6)
<b>Maternal Age</b>				
<20 Years	15	586	11.0**	(5.3-21.4)
20-29 Years	83	4,197	7.9	(5.9-10.4)
30+ Years	63	3,420	7.6	(5.6-10.3)
<b>Race/Ethnicity</b>				
White, non-Hispanic	46	4,517	6.4	(4.7-8.7)
Black, non-Hispanic	99	2,341	12.9	(10.6-15.5)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	6	433	8.7**	(3.4-20.8)
<b>Education</b>				
<High School	21	745	7.2	(4.0-12.8)
HS Grad/GED	52	2,552	9.4	(6.4-13.6)
Some College	49	2,417	8.0	(5.6-11.3)
College Degree+	38	2,455	7.0	(4.8-10.1)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	*	*	*	*
Medicaid/Public	79	3,011	8.3	(6.1-11.3)
Private	69	4,326	7.5	(5.6-9.9)
<b>Marital Status</b>				
Married	74	4,801	7.5	(5.7-9.8)
Other	87	3,402	8.5	(6.3-11.4)
<b>Parity</b>				
No previous live birth	60	3,351	9.3	(6.7-12.7)
1	46	2,403	6.5	(4.5-9.4)
2+	55	2,448	8.0	(5.6-11.3)
<b>Last Year's Household Income</b>				
<\$16,000	37	1,362	7.0	(4.4-11.0)
\$16,001-\$24,000	29	1,643	12.2	(7.6-19.0)
\$24,001-\$40,000	27	1,363	9.4	(5.6-15.3)
\$40,001-\$60,000	17	1,023	8.1	(4.5-14.3)
\$60,001+	32	2,143	6.1	(4.1-9.0)

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

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

**Table 79. Prevalence of infant usually sleeping in an infant car seat or swing by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	810	54,867	52.6	(49.5-55.6)
<b>Maternal Age</b>				
<20 Years	52	2,858	53.9	(40.3-67.0)
20-29 Years	417	26,883	50.3	(46.0-54.6)
30+ Years	341	25,126	55.1	(50.6-59.5)
<b>Race/Ethnicity</b>				
White, non-Hispanic	404	38,548	54.6	(50.7-58.6)
Black, non-Hispanic	302	7,301	40.1	(36.5-43.8)
Hispanic	49	4,629	64.9	(51.7-76.2)
Asian/Pacific Islander, non-Hispanic	23	1,907	61.6	(44.2-76.4)
Other, non-Hispanic	32	2,483	47.6	(33.7-61.9)
<b>Education</b>				
<High School	97	5,296	50.3	(40.7-59.8)
HS Grad/GED	209	14,656	53.5	(47.2-59.8)
Some College	253	16,288	53.7	(48.4-59.0)
College Degree+	248	18,354	51.7	(46.6-56.9)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	28	2,356	56.1	(39.3-71.5)
Medicaid/Public	330	19,105	52.9	(47.9-57.9)
Private	419	31,060	53.1	(49.0-57.2)
<b>Marital Status</b>				
Married	434	33,704	52.5	(48.5-56.4)
Other	376	21,163	52.8	(48.1-57.6)
<b>Parity</b>				
No previous live birth	288	18,440	50.8	(45.7-56.0)
1	269	20,223	54.2	(49.0-59.2)
2+	253	16,204	52.7	(47.2-58.2)
<b>Last Year's Household Income</b>				
<\$16,000	174	9,257	47.2	(40.5-54.0)
\$16,001-\$24,000	118	7,178	53.3	(44.4-62.0)
\$24,001-\$40,000	116	8,282	56.6	(48.3-64.5)
\$40,001-\$60,000	90	6,559	51.9	(43.1-60.5)
\$60,001+	242	19,061	53.9	(48.6-59.0)

**Table 80. Prevalence of infant usually sleeping in a sleep sack or wearable blanket by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	520	37,000	35.7	(32.8-38.7)
<b>Maternal Age</b>				
<20 Years	26	1,119	21.0	(12.4-33.2)
20-29 Years	251	16,714	31.4	(27.5-35.6)
30+ Years	243	19,167	42.6	(38.1-47.2)
<b>Race/Ethnicity</b>				
White, non-Hispanic	323	29,699	42.3	(38.4-46.3)
Black, non-Hispanic	142	3,153	17.4	(14.8-20.3)
Hispanic	26	1,972	28.2	(18.3-40.7)
Asian/Pacific Islander, non-Hispanic	9	571	19.1**	(9.0-36.0)
Other, non-Hispanic	20	1,606	31.8	(20.1-46.4)
<b>Education</b>				
<High School	38	1,797	17.9	(11.7-26.4)
HS Grad/GED	102	7,658	28.1	(22.6-34.4)
Some College	149	9,502	31.3	(26.5-36.6)
College Degree+	229	17,802	50.4	(45.3-55.6)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	11	986	24.2**	(12.3-42.2)
Medicaid/Public	158	8,759	24.3	(20.1-29.1)
Private	331	25,540	44.1	(40.0-48.2)
<b>Marital Status</b>				
Married	352	28,493	44.8	(40.9-48.8)
Other	168	8,508	21.3	(17.6-25.6)
<b>Parity</b>				
No previous live birth	202	12,852	35.3	(30.6-40.4)
1	169	13,673	37.0	(32.2-42.2)
2+	149	10,476	34.6	(29.4-40.2)
<b>Last Year's Household Income</b>				
<\$16,000	69	3,113	16.2	(11.7-21.9)
\$16,001-\$24,000	61	3,894	29.0	(21.5-37.8)
\$24,001-\$40,000	64	4,684	32.1	(24.7-40.6)
\$40,001-\$60,000	53	3,914	31.5	(23.8-40.3)
\$60,001+	227	18,377	52.2	(46.9-57.4)

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

**Table 81. Prevalence of infant usually sleeping with a blanket  
by maternal characteristics, MI PRAMS, 2016**

<b>Characteristic</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Total</b>	671	41,573	40.2	(37.3-43.3)
<b>Maternal Age</b>				
<20 Years	61	3,388	63.1	(49.7-74.8)
20-29 Years	380	22,146	41.6	(37.4-45.9)
30+ Years	230	16,038	35.9	(31.6-40.4)
<b>Race/Ethnicity</b>				
White, non-Hispanic	263	26,413	37.6	(33.8-41.6)
Black, non-Hispanic	323	7,781	42.7	(39.1-46.4)
Hispanic	38	3,678	53.7	(40.5-66.4)
Asian/Pacific Islander, non-Hispanic	24	1,710	58.3	(40.7-74.0)
Other, non-Hispanic	22	1,965	39.7	(26.4-54.6)
<b>Education</b>				
<High School	88	4,756	45.9	(36.5-55.6)
HS Grad/GED	204	12,524	46.5	(40.2-53.0)
Some College	229	13,457	44.5	(39.2-49.9)
College Degree+	148	10,681	30.4	(25.8-35.4)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	22	1,829	44.8	(28.9-61.8)
Medicaid/Public	324	17,082	47.7	(42.6-52.8)
Private	287	20,139	34.9	(31.0-38.9)
<b>Marital Status</b>				
Married	277	21,417	33.9	(30.2-37.7)
Other	392	20,095	50.2	(45.4-55.0)
<b>Parity</b>				
No previous live birth	260	15,298	42.4	(37.3-47.5)
1	216	14,518	39.5	(34.5-44.7)
2+	195	11,757	38.6	(33.3-44.2)
<b>Last Year's Household Income</b>				
<\$16,000	187	9,973	51.0	(44.3-57.7)
\$16,001-\$24,000	112	6,399	49.1	(40.3-58.0)
\$24,001-\$40,000	94	5,998	41.7	(33.7-50.2)
\$40,001-\$60,000	72	5,189	41.7	(33.3-50.6)
\$60,001+	132	10,734	30.5	(25.8-35.6)



**Table 82. Prevalence of infant usually sleeping with toys, cushions, or pillows by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	90	5,842	5.6	(4.4-7.3)
<b>Maternal Age</b>				
<20 Years	10	597	11.5**	(5.2-23.4)
20-29 Years	56	3,600	6.7	(4.8-9.4)
30+ Years	24	1,645	3.7	(2.3-5.8)
<b>Race/Ethnicity</b>				
White, non-Hispanic	36	3,937	5.6	(3.9-7.9)
Black, non-Hispanic	41	1,103	6.1	(4.5-8.2)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	*	*	*	*
Other, non-Hispanic	*	*	*	*
<b>Education</b>				
<High School	12	787	7.5**	(3.7-14.9)
HS Grad/GED	34	2,675	9.8	(6.5-14.5)
Some College	31	1,624	5.4	(3.5-8.3)
College Degree+	13	755	2.1**	(1.1-4.2)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	*	*	*	*
Medicaid/Public	37	2,368	6.6	(4.4-9.8)
Private	42	2,731	4.7	(3.2-6.9)
<b>Marital Status</b>				
Married	40	3,058	4.8	(3.3-6.9)
Other	49	2,758	6.9	(4.8-9.9)
<b>Parity</b>				
No previous live birth	42	2,564	7.1	(4.8-10.4)
1	27	1,823	5.0	(3.2-7.7)
2+	21	1,455	4.8	(2.8-8.0)
<b>Last Year's Household Income</b>				
<\$16,000	15	775	4.0**	(2.0-7.8)
\$16,001-\$24,000	17	1,292	9.6	(5.4-16.4)
\$24,001-\$40,000	18	1,107	7.7	(4.3-13.4)
\$40,001-\$60,000	10	499	4.0**	(1.9-8.3)
\$60,001+	13	1,110	3.2**	(1.7-5.9)

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

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

**Table 83. Prevalence of infant usually sleeping with crib bumper pads (mesh or non-mesh) by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	228	15,471	15.0	(12.9-17.4)
<b>Maternal Age</b>				
<20 Years	15	1,077	20.9	(11.5-34.8)
20-29 Years	121	7,593	14.3	(11.5-17.6)
30+ Years	92	6,800	15.2	(12.2-18.9)
<b>Race/Ethnicity</b>				
White, non-Hispanic	110	11,359	16.2	(13.4-19.4)
Black, non-Hispanic	98	2,466	13.6	(11.2-16.4)
Hispanic	*	*	*	*
Asian/Pacific Islander, non-Hispanic	8	643	21.4**	(9.9-40.2)
Other, non-Hispanic	8	560	11.6**	(5.3-23.5)
<b>Education</b>				
<High School	23	1,397	13.4	(8.0-21.6)
HS Grad/GED	64	4,294	16.1	(11.8-21.5)
Some College	82	5,261	17.6	(13.8-22.2)
College Degree+	58	4,485	12.7	(9.6-16.6)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	*	*	*	*
Medicaid/Public	96	4,900	13.8	(10.6-17.7)
Private	113	9,060	15.7	(12.9-18.9)
<b>Marital Status</b>				
Married	108	8,860	14.0	(11.4-17.0)
Other	118	6,551	16.6	(13.2-20.6)
<b>Parity</b>				
No previous live birth	100	6,767	18.8	(15.0-23.3)
1	67	5,088	13.9	(10.6-17.9)
2+	61	3,616	12.0	(8.8-16.0)
<b>Last Year's Household Income</b>				
<\$16,000	50	2,678	14.2	(9.9-19.9)
\$16,001-\$24,000	38	2,208	16.6	(11.0-24.2)
\$24,001-\$40,000	28	2,368	16.3	(10.8-24.0)
\$40,001-\$60,000	24	1,698	13.6	(8.6-20.9)
\$60,001+	62	5,221	14.8	(11.4-19.0)

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

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

**Table 84. Prevalence of infant usually sleeping on his or her back^ by maternal characteristics, MI PRAMS, 2016**

Characteristic	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Total</b>	1,330	87,760	81.9	(79.6-84.0)
<b>Maternal Age</b>				
<20 Years	78	3,811	69.9	(56.6-80.5)
20-29 Years	689	43,925	79.8	(76.4-82.8)
30+ Years	563	40,023	85.9	(82.7-88.6)
<b>Race/Ethnicity</b>				
White, non-Hispanic	652	61,626	85.4	(82.3-88.0)
Black, non-Hispanic	519	12,416	66.2	(62.6-69.5)
Hispanic	69	6,459	90.3**	(80.8-95.4)
Asian/Pacific Islander, non-Hispanic	37	2,533	72.9	(55.3-85.5)
Other, non-Hispanic	51	4,579	85.6**	(72.1-93.2)
<b>Education</b>				
<High School	158	8,681	79.0	(70.5-85.5)
HS Grad/GED	331	22,483	80.8	(75.8-85.0)
Some College	411	24,551	78.7	(74.3-82.6)
College Degree+	417	31,398	86.2	(82.3-89.3)
<b>Post Pregnancy Insurance Status</b>				
Uninsured	40	3,246	73.5	(57.1-85.2)
Medicaid/Public	538	29,393	78.3	(74.3-81.9)
Private	680	50,253	84.5	(81.4-87.1)
<b>Marital Status</b>				
Married	714	55,334	84.3	(81.3-86.9)
Other	614	32,366	78.2	(74.5-81.6)
<b>Parity</b>				
No previous live birth	479	29,426	78.6	(74.2-82.4)
1	424	32,068	84.0	(80.2-87.1)
2+	427	26,266	83.5	(79.3-86.9)
<b>Last Year's Household Income</b>				
<\$16,000	322	15,770	77.2	(71.4-82.1)
\$16,001-\$24,000	169	10,603	78.8	(71.2-84.8)
\$24,001-\$40,000	181	12,122	79.7	(72.7-85.2)
\$40,001-\$60,000	143	10,621	82.1	(75.0-87.6)
\$60,001+	388	31,323	87.0	(83.1-90.1)

^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 alternating between sleep positions are not included in this count.

\*\*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, 2016**

<b>Life Stressors (non-exclusive)</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
I moved to a new address	578	35,574	32.8	(30.0-35.6)
A close family member was very sick and had to go to the hospital	434	28,123	26.0	(23.4-28.7)
Someone very close to me died	388	22,542	20.8	(18.5-23.3)
I argued with my husband or partner more than usual	402	19,470	18.1	(16.0-20.4)
I had problems paying the rent, mortgage, or other bills	292	15,872	14.7	(12.7-16.9)
My husband, partner, or I had a cut in work hours or pay	274	15,824	14.6	(12.6-16.9)
I had to live with a friend or family member	307	15,551	14.3	(12.4-16.5)
I lost my job even though I wanted to go on working	219	10,601	9.8	(8.2-11.6)
Someone very close to me had a problem with drinking or drugs	167	10,241	9.4	(7.8-11.4)
My husband or partner lost his job	167	8,988	8.3	(6.8-10.1)
My husband or partner said he didn't want me to be pregnant	140	6,724	6.2	(5.0-7.7)
I got divorced or separated from my husband or partner	124	5,718	5.3	(4.1-6.7)
I was apart from my husband or partner because of deployment or extended work-related travel	59	3,363	3.1	(2.3-4.3)
My husband, partner, or I went to jail	92	3,690	3.4	(2.5-4.6)
I was homeless or had to sleep outside, in a car, or in a shelter	81	2,998	2.8	(2.0-3.8)

**Table 86. Cumulative number of life stressors experienced by mothers in 12 months before delivery, MI PRAMS, 2016**

	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
0	515	33,590	30.8	(28.2-33.6)
1	371	24,756	22.7	(20.3-25.3)
2	311	19,805	18.2	(16.0-20.6)
3	186	10,277	9.4	(7.9-11.3)
4	133	7,548	6.9	(5.6-8.6)
5	110	6,261	5.7	(4.5-7.3)
6	61	2,825	2.6	(1.8-3.6)
7	35	1,473	1.4	(0.8-2.2)
8+	55	2,373	3.2	(2.2-4.6)

**Table 87. Prevalence of unmet basic needs during pregnancy, MI PRAMS, 2016**

Unmet basic need	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Types (non-exclusive)</b>				
Did not have affordable, reliable transportation	146	8,155	7.6	(6.1-9.3)
Could not keep basic utility services on (heat, water, light)	128	6,897	6.4	(5.1-8.0)
Did not have safe housing	130	6,479	6.0	(4.8-7.6)
House or apartment was too crowded	109	6,486	6.0	(4.7-7.7)
Skipped meals or ate less because there wasn't enough money for food	122	6,316	5.8	(4.6-7.4)
Did not have consistent housing	94	4,874	4.5	(3.4-6.0)
Could not access a telephone when needed	58	3,196	3.0	(2.1-4.1)
Other unmet needs	137	6,811	6.4	(5.1-8.0)

**Table 88. Cumulative number of unmet basic needs during pregnancy, MI PRAMS, 2016**

	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
None	1,242	81,366	75.2	(72.6-77.6)
1	283	14,789	13.7	(11.8-15.8)
2	119	6,423	5.9	(4.7-7.5)
3	49	2,931	2.7	(1.9-3.9)
4+	54	2,707	2.5	(1.7-3.6)

**Table 89. Prevalence of any physical violence 12 months before or during pregnancy,  
MI PRAMS, 2016**

<b>Time period of abuse</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Abuse either 12 months before conception or during pregnancy	96	4,479	4.1	(3.1-5.4)
Abuse 12 months before conception	73	3,505	3.2	(2.3-4.4)
Abuse during pregnancy	68	3,381	3.1	(2.2-4.3)

**Table 90. Perpetrator of abuse 12 months before conception,  
MI PRAMS, 2016**

<b>Person who abused mother</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Husband/partner	40	1,788	1.6	(1.1-2.5)
Ex-husband/partner	32	1,983	1.8	(1.1-2.9)
Another family member	10	291	0.3**	(0.1-0.6)
Someone else	11	510	0.5**	(0.2-1.1)

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

**Table 91. Perpetrator of abuse during pregnancy,  
MI PRAMS, 2016**

<b>Person who abused mother</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Husband/partner	29	1,183	1.1	(0.7-1.7)
Ex-husband/partner	22	1,390	1.3	(0.7-2.2)
Another family member	*	*	*	*
Someone else	18	792	0.7**	(0.4-1.4)

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

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

**Table 92. Prevalence of maternal adverse childhood experiences, MI PRAMS, 2016**

<b>Adverse Childhood Experience</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Types (non-exclusive)</b>				
A parent or guardian I lived with got divorced or separated	597	37,356	35.4	(32.6-38.4)
A parent or guardian I lived with had a serious drinking or drug problem	261	17,070	16.3	(14.1-18.7)
A parent or guardian got in trouble with the law or went to jail	232	13,583	12.9	(11.0-15.1)
We had to move because of trouble paying the rent or mortgage	244	13,365	12.7	(10.8-14.9)
Someone in my family or I went hungry because we could not afford enough food	146	8,181	7.8	(6.3-9.6)
Most of the time, I did not have an adult who believed in me and who I could count on to help me	146	7,838	7.4	(6.0-9.1)
I was in foster care (removed from home by court or child welfare)	108	4,939	4.7	(3.6-6.1)

**Table 93. Cumulative number of maternal adverse childhood experiences, MI PRAMS, 2016**

	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
None	845	55,594	52.3	(49.3-55.2)
1	452	25,465	23.9	(21.5-26.6)
2	190	11,461	10.8	(9.0-12.8)
3	98	5,585	5.3	(4.0-6.8)
4+	129	8,269	7.8	(6.2-9.7)

**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, 2016**

	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Very often	78	5,215	4.9	(3.7-6.5)
Somewhat often	176	10,301	9.7	(8.1-11.7)
Not very often	415	26,010	24.6	(22.0-27.3)
Never	1,040	64,405	60.8	(57.8-63.7)

## 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. Women with a resilience score of 6 report that most of the time they handle stressful situations well. Women 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, 2016**

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	1,582	100,027	93.2	(91.6-94.5)
It is not hard for me to snap back when something bad happens	1,526	96,141	89.3	(87.3-91.0)
I do not have a hard time making it through stressful events	1,480	93,253	86.6	(84.5-88.6)
I tend to bounce back quickly after hard times	1,255	75,920	70.9	(68.1-73.6)
It does not take me long to recover from a stressful event	922	60,760	56.7	(53.7-59.6)
I usually come through a difficult time with little trouble	956	60,500	56.4	(53.5-59.4)

**Table 96. Cumulative number of positive responses to stressful life events,  
MI PRAMS, 2016**

Number of positive responses to stressful situations	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
6	491	32,692	30.3	(27.6-33.1)
5	409	25,786	23.9	(21.4-26.6)
4	493	30,039	27.8	(25.2-30.6)
0-3	349	19,353	17.9	(15.8-20.3)



**Table 97. Post-partum checkup for mother,  
MI PRAMS, 2016**

	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
Yes	1,550	97,834	90.6	(88.7-92.2)
No	194	10,164	9.4	(7.8-11.3)

**Table 98. Prevalence of health care provider discussions and actions taken during postpartum checkup,  
MI PRAMS, 2016**

	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Discussion or Action (non-exclusive)</b>				
Ask if feeling down or depressed	1,345	85,186	87.8	(85.6-89.7)
Discuss birth control methods	1,360	85,041	87.2	(84.9-89.1)
Ask if taking other prescriptions medications	1,088	69,965	72.5	(69.6-75.2)
Ask if smoking cigarettes	1,038	63,666	66.1	(63.1-69.0)
Ask about current emotional or physical abuse	1,011	58,809	61.0	(57.9-64.1)
Discuss healthy eating, exercise and losing pregnancy weight gain	933	57,173	59.0	(55.9-62.1)
Advise to take folic acid	763	49,575	51.8	(48.6-54.9)
Discuss how long to wait to get pregnant again	816	49,996	51.5	(48.3-54.7)
Ask if drinking alcohol	862	48,918	50.8	(47.6-53.9)
Give or prescribe hormonal or barrier contraceptives	805	47,102	48.6	(45.4-51.7)
Ask if taking prescription opioids	616	34,851	36.3	(33.3-39.3)
Test for diabetes	426	21,162	22.0	(19.6-24.6)
Insert an IUD	309	17,587	18.3	(16.0-20.8)

**Table 99. Post-partum depression symptoms,  
MI PRAMS, 2016**

<b>Experience</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Since new baby was born, number of mothers reporting...</b>				
<i>Feeling down, depressed, or hopeless</i>				
Never	679	39,403	36.7	(33.9-39.7)
Rarely	565	39,297	36.6	(33.8-39.6)
Sometimes	358	21,478	20.0	(17.7-22.5)
Often	104	6,207	5.8	(4.5-7.4)
Always	24	879	0.8	(0.5-1.5)
 <i>Having little or no pleasure in doing things</i>				
Never	701	42,974	39.9	(37.0-42.9)
Rarely	444	31,736	29.5	(26.8-32.3)
Sometimes	363	21,201	19.7	(17.4-22.2)
Often	145	7,697	7.2	(5.8-8.8)
Always	86	4,005	3.7	(2.8-4.9)
<b>Mothers reporting significant post-partum depression**</b>	294	15,290	14.3	(12.4-16.5)

**\*\*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, 2016**

<b>Maternal Immunization</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Flu Shot</b>				
No	885	47,281	44.0	(41.1-47.0)
Yes, before pregnancy	182	11,976	11.2	(9.4-13.2)
Yes, during pregnancy	691	48,120	44.8	(41.9-47.8)
<b>Tdap</b>				
No	539	29,465	27.0	(24.5-29.7)
Yes	1,069	70,745	64.9	(62.1-67.6)
I don't know	173	8,763	8.0	(6.6-9.8)

**Table 101. Plans for future infant immunization,  
MI PRAMS, 2016**

<b>Immunization Plans</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
As doctor recommends	1,447	91,937	87.7	(85.6-89.5)
All vaccines but on a different schedule	67	4,593	4.4	(3.3-5.9)
Only some vaccines	122	5,880	5.6	(4.4-7.1)
No vaccines planned	44	2,458	2.3	(1.6-3.4)

**Table 102. Average amount of maternal sleep each night in the last week,  
MI PRAMS, 2016**

<b>Quantity (hours)</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
0-3	124	5,174	5.0	(3.9-6.3)
4-6	1,005	59,897	57.3	(54.3-60.3)
7-8	482	35,266	33.8	(30.9-36.7)
9+	70	4,136	4.0	(2.9-5.3)

**Table 103. Average number of times mother awoke each night in the last week,  
MI PRAMS, 2016**

<b>Number of awakenings</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
0-1	380	24,823	25.5	(22.9-28.4)
2	517	31,878	32.8	(29.9-35.8)
3	386	25,032	25.8	(23.1-28.6)
4+	271	15,465	15.9	(13.8-18.3)

**Table 104. Partner living arrangement with mother,  
MI PRAMS, 2016**

Living arrangement	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Types (exclusive)</b>				
Partner lives with me all the time	1,242	89,070	83.3	(81.4-85.2)
Partner lives with me some of the time	89	3,900	3.6	(2.7-4.8)
Partner does not live with me	202	6,880	6.4	(5.3-7.7)
I do not have a husband or partner	191	7,015	6.6	(5.4-8.0)

**Table 105. Ways that husband or partner supports mother,  
MI PRAMS, 2016**

Support of mother	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
<b>Types (non-exclusive)</b>				
My partner is someone who helps me care for my child(ren)	1,445	95,754	97.2	(96.1-98.0)
My partner is someone I can talk with about things that are important to me	1,430	94,540	96.0	(94.7-97.0)
My partner is someone who talks with me and spends time with me	1,420	93,940	95.4	(93.9-96.5)
My partner is someone whom I can count on	1,414	93,859	95.4	(93.9-96.5)
My partner is someone who does things with me	1,410	93,709	95.2	(93.7-96.3)
My partner is someone who is affectionate toward me	1,401	92,711	94.7	(93.2-95.9)
My partner is someone I can count on for financial support if I need it	1,401	92,863	94.2	(92.5-95.5)
My partner is someone who understands how I am feeling	1,328	88,308	90.2	(88.1-91.9)

**Table 106. Cumulative number of ways that husband or partner supports mother,  
MI PRAMS, 2016**

	Sample Frequency	Weighted Frequency	Weighted Percent	95% Confidence Interval
0-2	64	2,815	2.8	(2.0-4.0)
3-5	65	3,710	3.7	(2.7-5.1)
6-7	164	10,195	10.3	(8.5-12.4)
8	1,228	82,248	83.1	(80.6-85.3)

**Table 107. People available to help watch baby,  
MI PRAMS, 2016**

<b>Infant caretakers</b>	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
<b>Caretakers (non-exclusive)</b>				
Husband/Partner	1,213	79,178	73.7	(71.0-76.2)
Baby's grandparent	1,131	71,232	66.3	(63.4-69.1)
Other close family member/relative	649	36,588	34.1	(31.3-37.0)
Babysitter, nanny, or other child care provider	244	16,546	15.4	(13.3-17.7)
Staff at day care center	156	9,862	9.2	(7.6-11.0)
Friend or neighbor	151	10,127	9.4	(7.8-11.4)
Other	50	2,667	2.5	(1.7-3.6)
Baby always with mom	338	19,167	17.9	(15.7-20.3)

**Table 108. Cumulative number of infant caretakers,  
MI PRAMS, 2016**

	<b>Sample Frequency</b>	<b>Weighted Frequency</b>	<b>Weighted Percent</b>	<b>95% Confidence Interval</b>
None	126	8,066	7.5	(6.0-9.3)
1	398	23,091	21.5	(19.1-24.1)
2	619	39,008	36.3	(33.5-39.3)
3	405	26,480	24.7	(22.1-27.3)
4+	172	10,751	10.0	(8.4-12.0)

## APPENDIX

### Comparison of MI PRAMS 2016 Data Tables to MI PRAMS 2015 Data Tables

MI PRAMS 2016 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 <i>**New topic on Phase 8 survey</i>	
Table 9**. Type of healthcare visits among women in the 12 months before pregnancy <i>**New topic on Phase 8 survey</i>	
Table 10**. Type of counseling/screening among women reporting any healthcare visits in the 12 months before pregnancy <i>**New topic on Phase 8 survey</i>	
Table 11.^ Frequency of taking a folate-containing vitamin in the month before pregnancy <i>^ Topic available but not reported in Phase 7 tables</i>	
Table 12.^ Prevalence of no folic acid containing vitamin consumption in the month before pregnancy by maternal characteristics <i>^ Topic available but not reported in Phase 7 tables</i>	
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 2016 Table	MI PRAMS 2015 Table
<p>Table 16.^^ Distribution of contraceptive behaviors at the time of conception</p> <p>^^ <i>Topic available in Phase 6 Survey</i></p>	
<p>Table 17. Characteristics of women trying to conceive during the pre-pregnancy period</p>	<p>Table 14. Characteristics of women trying to conceive during the pre-pregnancy periods</p>
<p>Table 18. Characteristics of women who became pregnant despite using contraceptive practices</p>	<p>Table 15. Prevalence of women who became pregnant despite using contraceptive practices</p>
<p>Table 19. ^^ Prevalence of contraception methods used by women who became pregnant despite using contraceptive practices</p> <p>^^<i>Topic available in Phase 6 Survey</i></p>	
<p>Table 20. Prevalence of women who were not trying to conceive but were not doing anything to prevent pregnancy by maternal characteristics</p>	<p>Table 16. Prevalence of women who were not trying to conceive but were not doing anything to prevent pregnancy by maternal characteristics</p>
<p>Table 21. Reasons women who were not trying to conceive - but were not doing anything to prevent pregnancy - did not use contraception</p>	<p>Table 17. Reasons women who were not trying to conceive but were not doing anything to prevent pregnancy did not use contraception</p>
<p>Table 22. Prevalence of using any postpartum contraceptive method by maternal characteristics</p>	<p>Table 18. Prevalence of using any postpartum pregnancy prevention method by maternal characteristics</p>
<p>Table 23. Prevalence of postpartum contraceptive methods</p>	<p>Table 19. Prevalence of postpartum contraceptive methods</p>
<p>Table 24.^ Prevalence of no postpartum contraceptive methods by maternal characteristics</p> <p>^ <i>Topic available but not reported in Phase 7 tables</i></p>	
<p>Table 25. Reasons for not using any postpartum contraception</p>	<p>Table 20. Reasons for not using postpartum contraceptive methods</p>
<p>Table 26. Trimester of entry into prenatal care</p>	<p>Table 21. Trimester of entry into prenatal care</p>
<p>Table 29. Prevalence of getting prenatal care as early as wanted</p>	<p>Table 22. Prevalence of getting prenatal care as early as wanted</p>
<p>Table 30. Prevalence of getting prenatal care as early as wanted by first trimester entry into prenatal care</p> <p>^ <i>Topic available but not reported in Phase 7 tables</i></p>	
<p>Table 31.^^ Barriers to starting prenatal care as early as wanted among women who began prenatal care during the first trimester</p> <p>^^<i>Topic available in Phase 6 survey</i></p>	
<p>Table 32.^^ Barriers to starting prenatal care as early as wanted among women who began prenatal care after the first trimester</p> <p>^^<i>Topic available in Phase 6 survey</i></p>	
<p>Table 33**. Prevalence of topics discussed by health care provider during prenatal care visits</p> <p>**<i>New topic on Phase 8 survey</i></p>	



MI PRAMS 2016 Table	MI PRAMS 2015 Table
Table 34**. Prevalence of Pregnancy Complications <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 <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 <i>**New topic on Phase 8 survey</i>	
Table 39**. Prevalence of electronic cigarette usage during the last 3 months of pregnancy <i>**New topic on Phase 8 survey</i>	
Table 40**. Prevalence of hookah usage in 2 years before survey completion by maternal characteristics <i>**New topic on Phase 8 survey</i>	
Table 41**. Prevalence of marijuana or hash usage in 12 months before pregnancy by maternal characteristics <i>**New topic on Phase 8 survey</i>	
Table 42**. Prevalence of marijuana or hash usage during pregnancy by maternal characteristics <i>**New topic on Phase 8 survey</i>	
Table 43**. Prevalence of marijuana or hash usage after pregnancy by maternal characteristics <i>**New topic on Phase 8 survey</i>	
Table 44**. Prevalence of opioid pain reliever usage in 12 months before pregnancy by maternal characteristics <i>**New topic on Phase 8 survey</i>	
Table 45**. Prevalence of opioid pain reliever usage during pregnancy by maternal characteristics <i>**New topic on Phase 8 survey</i>	
Table 46**. Prevalence of opioid pain reliever usage after pregnancy by maternal characteristics <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 2016 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 <i><sup>^</sup>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 <i><sup>^</sup>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 <i><sup>^</sup>Topic available, but not reported in Phase 7 tables</i>	
Table 56 <sup>**</sup> . Reasons for not initiating breastfeeding <i>**New topic on Phase 8 survey</i>	
Table 57 <sup>**</sup> . Cumulative number of reasons for not initiating breastfeeding <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 <i><sup>^</sup>Topic available, but not reported in Phase 7 tables</i>	
Table 60. <sup>^</sup> Prevalence of 2-month breastfeeding duration by maternal characteristics <i><sup>^</sup>Topic available, but not reported in Phase 7 tables</i>	
Table 61 <sup>^</sup> . Prevalence of 3-month breastfeeding duration by maternal characteristics <i><sup>^</sup>Topic available, but not reported in Phase 7 tables</i>	
Table 62*. Reasons for stopping breastfeeding <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 <i>**New topic on Phase 8 survey</i>	
Table 64 <sup>**</sup> . Total number of breastfeeding information sources <i>**New topic on Phase 8 survey</i>	

MI PRAMS 2016 Table	MI PRAMS 2015 Table
<p>Table 65**. Did mother ever use a breast pump **New topic on Phase 8 survey</p>	
<p>Table 66**. Source of breast pump **New topic on Phase 8 survey</p>	
<p>Table 67**. Prevalence of ever using a breast pump by maternal characteristics **New topic on Phase 8 survey</p>	
<p>Table 68**. Baby health indicators **New topic on phase 8 survey</p>	
<p>Table 69. Distribution of WIC status during pregnancy,</p>	<p>Table 44. Distribution of WIC status during pregnancy</p>
<p>Table 70**. How often infant slept alone in his/her own bed over last two weeks **New topic on Phase 8 survey</p>	
<p>Table 71**. Infant slept in his/her own crib or bed in mother's room **New topic on Phase 8 survey</p>	
<p>Table 72*^. Infant sleep space characteristics *Direct comparison not possible between survey phases ^Topic available, but not reported in Phase 7 tables</p>	
<p>Table 73. Primary infant sleep position</p>	<p>Table 45. Primary infant sleep position</p>
<p>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 *Direct comparison not possible between survey phases</p>	<p>Table 52. Prevalence of infant usually sleeping with mother or another person by maternal characteristics</p>
<p>Table 75**. Prevalence of infant sleeping alone in his/her own crib or bed in the same room as mother by maternal characteristics **New topic on Phase 8 survey</p>	
<p>Table 76.* Prevalence of infant usually sleeping in a crib by maternal characteristics *Direct comparison not possible between survey phases</p>	<p>Table 48. Prevalence of infant usually sleeping on a crib by maternal characteristics</p>
<p>Table 77.* Prevalence of infant usually sleeping on an adult-sized mattress by maternal characteristics *Direct comparison not possible between survey phases</p>	<p>Table 49. Prevalence of infant usually sleeping on a firm mattress by maternal characteristics</p>
<p>Table 78**. Prevalence of infant usually sleeping on a couch, sofa, or armchair by maternal characteristics **New topic on Phase 8 survey</p>	
<p>Table 79**. Prevalence of infant usually sleeping in an infant car seat or swing by maternal characteristics **New topic on Phase 8 survey</p>	
<p>Table 80**. Prevalence of infant usually sleeping in a sleep sack or wearable blanket by maternal characteristics</p>	

MI PRAMS 2016 Table	MI PRAMS 2015 Table
<i>**New topic on Phase 8 survey</i>	
Table 81.* Prevalence of infant usually sleeping with a blanket by maternal characteristics <i>*Direct comparison not possible between survey phases</i>	Table 51. Prevalence of infant usually sleeping with blankets by maternal characteristics
Table 82* <sup>^</sup> . Prevalence of infant usually sleeping with toys, cushions, or pillows by maternal characteristics <i>*Direct comparison not possible between survey phases</i> <sup>^</sup> Topic available, but not reported in Phase 7 tables	
Table 83.* Prevalence of infant usually sleeping with crib bumper pads (mesh or non-mesh) by maternal characteristics <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 <i>**New topic on phase 8 survey</i>	
Table 88**. Cumulative number of unmet basic needs during pregnancy <i>**New topic on phase 8 survey</i>	
Table 89*. Prevalence of any physical violence 12 months before or during pregnancy <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 <i>**New topic on phase 8 survey</i>	
Table 93**. Cumulative number of maternal adverse childhood experiences <i>**New topic on phase 8 survey</i>	
Table 94**. From childhood through age 13 how often did mother's family have difficulty paying for basic needs like food and housing <i>**New topic on phase 8 survey</i>	
Table 95**. Positive responses to stressful events	

MI PRAMS 2016 Table	MI PRAMS 2015 Table
<i>**New topic on phase 8 survey</i>	
Table 96**. Cumulative number of positive responses to stressful life events <i>**New topic on phase 8 survey</i>	
Table 97. Post-partum checkup for mother	Table 60. Post-partum checkup for mother
Table 98**. Prevalence of health care provider discussions and actions taken during postpartum checkup <i>**New topic on phase 8 survey</i>	
Table 99. Post-partum depression symptoms	Table 61. Post-partum depression symptoms
Table 100^. Maternal immunization before and during pregnancy <i>^Topic available, but not reported in Phase 7 tables (flu only)</i>	
Table 101**. Plans for future infant immunization <i>**New topic on survey Phase 8</i>	
Table 102**. Average amount of maternal sleep each night in the last week <i>**New topic on survey Phase 8</i>	
Table 103**. Average number of times mother awoke each night in the last week <i>**New topic on survey Phase 8</i>	
Table 104**. Partner living arrangement with mother <i>**New topic on survey Phase 8</i>	
Table 105**. Ways that husband or partner supports mother <i>**New topic on survey Phase 8</i>	
Table 106**. Cumulative number of ways that husband or partner supports mother <i>**New topic on survey Phase 8</i>	
Table 107**. People available to help watch baby <i>**New topic on survey Phase 8</i>	
Table 108**. Cumulative number of infant caretakers <i>**New topic on survey Phase 8</i>	

2015 Tables available at [https://www.michigan.gov/documents/mdhhs/2018-05-01\\_MI\\_PRAMS\\_2015\\_Tables\\_final\\_622045\\_7.pdf](https://www.michigan.gov/documents/mdhhs/2018-05-01_MI_PRAMS_2015_Tables_final_622045_7.pdf)

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