



EXECUTIVE SUMMARY

The Michigan Pregnancy Risk Assessment Monitoring System (MI PRAMS) is an annual population-based survey of new mothers which assesses behaviors and experiences around the time of pregnancy. MI PRAMS is a collaboration between the Centers for Disease Control and Prevention (CDC) and the Michigan Department of Health and Human Services (MDHHS). Our goal is to collect information that will help MDHHS reduce disparities and improve the health of all Michigan mothers, babies, and families. Numbers in these tables represent the experiences of the population of Michigan mothers who delivered live-born infants between January 1 and December 31, 2021.

2021 Operational Summary |

MI PRAMS web and mail data collection and analysis operations are housed within the Maternal and Child Health Epidemiology Section, a part of the Lifecourse Epidemiology and Genomics Division. Each year, MI PRAMS randomly selects about 3% of all Michigan mothers of live births for participation in the survey. We send out over 15,000 letters per year and make over 20,000 phone calls [through a phone contractor] in our efforts to secure responses from over 55% of mothers selected (1-2% of all mothers for the year). A growing proportion of survey responses are being collected via web.



" With the pandemic I feel like there were not any resources for new parents available and they were rushing me out of the hospital..."

-2021 MI PRAMS Mom

Strengths of the PRAMS Method and Instrument |

To ensure that this data set is useful for MDHHS's mission to improve health and reduce disparities, MI PRAMS oversamples from among populations of special interest: mothers who have had a low-birthweight infant, African American mothers, and mothers who reside in seven SE Michigan counties. Random selection and high response rates ensure that MI PRAMS hears from a wide spectrum of Michigan mothers - from across the state and from all socioeconomic groups. The MI PRAMS survey asks about mother's life experiences before and during pregnancy and in the months since their baby was born.

2021 Birth Year Findings of Interest

Within the MI PRAMS 2021 Birth Year Maternal and Infant Health Summary Tables there are some topics that are of perennial interest and also data on relatively newer topics. Some 2021 findings of interest are important to interpret amidst the backdrop of the COVID-19 pandemic. Virtually all mothers delivering in 2021 will have experienced the pandemic from the start through end of their pregnancy. Findings from selected topics are highlighted below.

Healthcare Utilization in the Year Before Pregnancy | [Tables 8a, 8b]

- For the first time in an annual report, the MI PRAMS team is highlighting demographics for both those who said YES to "any healthcare visits in the year before pregnancy" and, importantly, demographics for those who answered NO.
- Adding this table allows for an easier at-a-glance evaluation of inadequate healthcare delivery during what turned out to be the pre-conception year. Although this information was able to be calculated by simple subtraction in years past, it is worth adding a table that more clearly conveys an unmet need. We see more clearly that about half of mothers of color in Michigan reported no healthcare visits in the year before pregnancy, compared to about a quarter of non-Hispanic white mothers.

Breastfeeding | [Tables 56-62]

- In 2021, 88.4 percent of mothers initiated breastfeeding. This represents an increase from the 71.0 percent who initiated in 2004 but is statistically unchanged from the proportion of mothers who initiated breastfeeding in 2017 through 2019.
- Three-month breastfeeding duration in 2021 (56.9%) continues along the same flat trajectory seen for the six years since the 2015 birth year (55.5%).



"Lactation consultation would have been great to have at the hospital. We can definitely do better in that area."

-2021 MI PRAMS Mom

Marijuana Usage | [Tables 41-43]

- The 2018 policy legalizing recreational marijuana use in Michigan was implemented in 2020. Mothers delivering in the 2021 represent the first full year in which cannabis use was legal for the duration of pregnancy.
- About one in four mothers (24.3%) reported any use in the year before pregnancy; an increase from 12.4 percent in 2016-2017.
- One in 10 mothers (9.5%) used marijuana during pregnancy; an increase from just 3.1 percent of mothers in 2016-2017.
- One in seven mothers (14.0%) reported marijuana use since the birth of their new baby; nearly a three-fold increase from 4.8 percent in 2016-2017.

Smoking and Electronic Cigarette Use During Pregnancy | [Table 36, 38]

- The proportion of mothers who reported any cigarette smoking in the final three months of their pregnancy reached an all-time low of 8.5 percent in 2021.
- This is down from almost one in five (17.8%) who reported late-pregnancy smoking in 2009.
- Use of electronic cigarettes before (2.9%) or during (1.1%) pregnancy was relatively rare in 2016 but has grown more common with time (7.1% before and 2.7% during pregnancy in 2021).

Plans for Infant Immunization | [Table 101]

- The proportion of mothers who plan to follow all of their physician's recommendations for infant immunization has continued a modest year-over-year decrease in the last six years (87.7% in 2016 and 80.2% in 2021).

Perinatal Mood and Anxiety Disorders | [Tables 7, 34 and 99]

- Depression remains prevalent before (20.9%), during (19.3%), and following (16.5%) pregnancy.
- Just over a third of mothers (34.5%) report anxiety in the three months before pregnancy, continuing a trend of steady year-over-year increase from just 20.7% in 2016.

Health Insurance Coverage | [Table 1 and by pre- or post-pregnancy insurance status throughout]

- Due to an increasing proportion of women with Medicaid coverage, the proportion of mothers who had no insurance before pregnancy remains low. In 2012, 16.3 percent of mothers were uninsured in the month before pregnancy; this was down to 6.9 percent in 2020 and even further to 4.4 percent in 2021.

Maternal Postpartum Care | [Tables 97 -98]

- One in eight mothers (12.5%) did not have a postpartum visit for themselves following pregnancy.
- Among those who do have a postpartum visit, screening for postpartum opioid pain reliever use was rare (30.9%), as were tests for diabetes (19.5%) and discussions around ideal pregnancy timing (52.0%).
- Screening for depression (91.9%) and discussions about contraceptives (87.0%) were both common.

Unmet Basic Needs | [Tables 87-88]

- Around one in five mothers (18.6%) had at least one basic need such as food, housing, or transportation that was not met during pregnancy.
- About one in fifteen (6.4%) had two or more unmet basic needs.
- These proportions remain virtually unchanged across birth years 2016-2021.

Life Stressors | [Tables 85-86]

- Nearly seven in ten mothers (69.9%) experienced at least one of the significant life stressors asked about on Michigan PRAMS.
- About one in nine (11.4%) report that they had to live with a friend or family member in the year before baby was born, and 2.3% report that they had to sleep outside or in a car or shelter.



" I strongly feel that there should be at least 2 postpartum check ups and not just 6 weeks from when the baby is due. Even though there was someone I could call, my anxiety was way higher [postpartum], because I had so many questions about what was happening with my recovery.

- 2021 MI PRAMS Mom

Continued Special Topics | [Maternal Disability]

During a multi-year Michigan PRAMS survey phase, questions that measure core indicators remain unchanged. To address emerging public health topics, Michigan PRAMS may include other questions for a short period of time. For births between November 15, 2018, and December 31, 2021, MI PRAMS asked six new questions about disabilities among Michigan mothers. Mothers were asked to rank the amount of difficulty they faced with:


- Seeing
- Hearing
- Walking or climbing
- Remembering or concentrating
- Making themselves understood to others
- Take care of themselves (i.e. bathing, dressing)

Responses to these questions can help answer important questions about how prevalent these challenges are for Michigan mothers and whether the care they and their infants receive is impacted. A stand-alone report on this topic is forthcoming.

New Annual Topics | [COVID-19 Pandemic]

MI PRAMS continues to ask about the impacts of the COVID-19 pandemic during the entirety of the 2021 birth year. Statistics on these topics will be compiled with findings from the 2020 birth year in a special report; as always estimates for these and other topics are also available on request.

- Testing positive for COVID-19
- Economic impacts of the pandemic
- Impacts of the pandemic on access to healthcare




" COVID-19 made it difficult for us to get help from anyone during and after my recent pregnancy, which made us feel more stressful..."

-2021 MI PRAMS Mom

For Additional Information |

The 2021 Birth Year Maternal and Infant Health Summary Tables as well as other Michigan PRAMS reports are available online at www.michigan.gov/prams.

For more information about Michigan PRAMS or about using Michigan PRAMS data to support programs that help Michigan mothers and babies, contact the Michigan PRAMS Project Coordinator, Hannah Bovia (boviah@michigan.gov) or PRAMS Analyst Pete Haak (haakp@michigan.gov).



" WIC has been very helpful after pregnancy. It was great to have someone to talk to about postpartum and listen and to ask questions to other than friends and family."

-2021 MI PRAMS Mom