

# Maternal Functional Difficulties in Montana, October 2018 – December 2020

## What is PRAMS?

The Montana Pregnancy Risk Assessment Monitoring System (PRAMS) is a survey of recent mothers about their experiences and behaviors before, during, and shortly after pregnancy. PRAMS aims to improve the health of Montana mothers and infants by collecting high-quality data that is representative of the Montana population. The project is a collaborative effort between the Montana Department of Public Health and Human Services (DPHHS) and the Centers for Disease Control and Prevention (CDC). More information, including methods, can be found at the [CDC's PRAMS Website](#) and at the [Montana PRAMS Website](#).

## Maternal Functional Difficulties

For births occurring October 2018 through December 2020 a six-item supplement, added to the end of the PRAMS questionnaire, was asked of all PRAMS respondents. The supplement consisted of the "Washington Group Short Set of Questions on Disability," which is comprised of six questions to assess difficulty with seeing, hearing, walking, remembering, self-care, and communicating, with response options measuring severity ranging from "no difficulty" to "cannot do this at all."<sup>1</sup> This supplement has been utilized to assess "disability," an umbrella term referring to activity limitation, impairment, or participation restrictions, in a number of contexts to assess disability across populations.<sup>2</sup> Montana PRAMS recognizes that not all participants who responded to the supplement as having difficulties may identify as having a disability; thus, this data brief attempts to summarize maternal "functional difficulties" as the term more closely aligns with the terminology within the supplement. For the purposes of this data brief the response of "no difficulty" or "some difficulty" is classified as not having functional difficulties while the response of "a lot of difficulty" or "cannot do this at all" is classified as having functional difficulties. The majority of the analysis conducted for this project utilized an aggregate measure of functional difficulty, which includes respondents having "a lot of difficulty" or "cannot do this at all" on any one of the six measured difficulty domains. All years are combined for analysis in order to produce stable estimates.

A total of 1,607 mothers responded to the PRAMS survey from October 2018 through December 2020 with an overall weighted response rate of 51.9%. During that time 6.4% of respondents reported having any difficulty compared to 6.7% nationally in 2020. Most mothers did not report a functional difficulty; however, the most reported difficulty was remembering (4.2%) followed by difficulty seeing (1.8%).

## Fast Facts

- ♥ **Most mothers** did not report a difficulty, but 6.4% of mothers reported *any* difficulty.
- ♥ Difficulty **remembering** was the most commonly reported difficulty (4.2%).
- ♥ Little difference was observed for receipt of healthcare education or screening between mother's reporting difficulty vs not reporting difficulty; except for **receipt of folic acid recommendation was lower** and **pre-pregnancy depression screening was higher** among mother's reporting difficulty.
- ♥ Mothers reporting any difficulty had significantly higher rates of **pre-pregnancy depression** (65% vs. 21%) and **postpartum depression** (39% vs. 14%).

**Very few mothers report having functional difficulties; Difficulty remembering and seeing were the most reported functional difficulties.**

*% of mothers reporting functional difficulties*

Have Difficulty...	Montana October 2018 – December 2020			National Data*** 2020
	% (95% CI)**	Sample Size	Population Estimate	%(95% CI)**
Seeing	1.8% (1.2 - 2.5)	38	405	1.8% (1.5-2.1)
Hearing	-	-	-	0.8% (0.6-1.0)
Walking	0.7% (0.4 - 1.2)	13	154	0.6% (0.5-0.9)
Remembering	4.2 (3.3 - 5.4)	67	971	3.9% (3.5-4.4)
With Self Care	-	-	-	0.3% (0.2-0.5)
Communicating	-	-	-	0.4% (0.3-0.6)
With Any of the Above	6.4% (5.2 - 7.8)	113	1,471	6.7% (6.1-7.3)

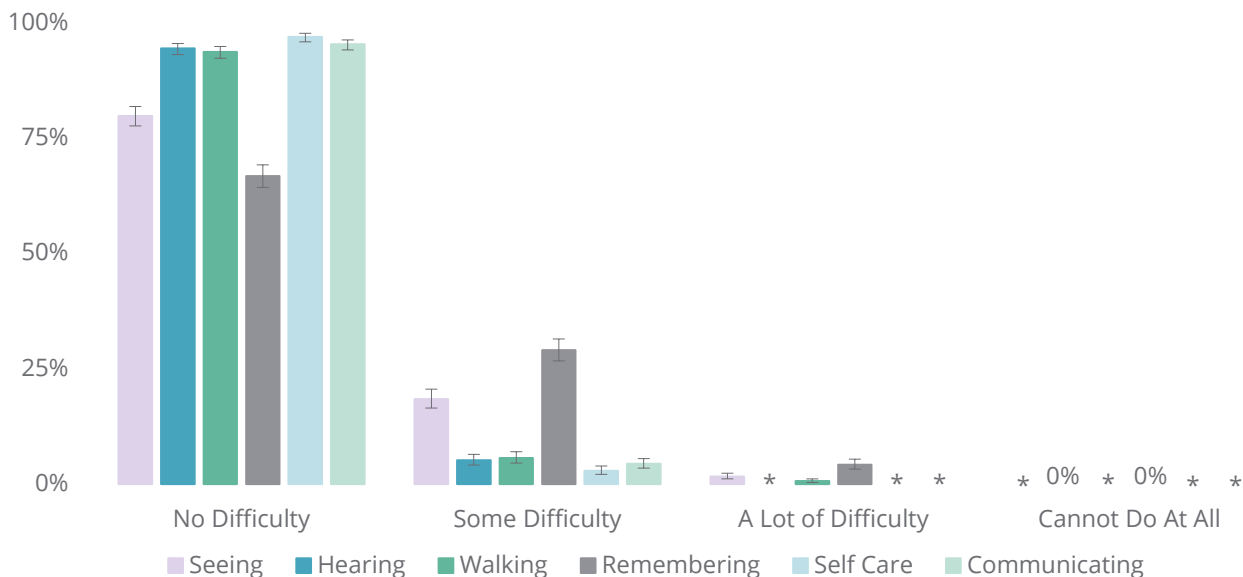
- Estimate has been suppressed because it is statistically unstable.

\*\*Weighted percent (95% Confidence Interval). Weighted Percent is the estimated percent representing a population based on only a sample of the population. The weighted percent considers sampling, nonresponse, and noncoverage to calculate the estimate. Confidence Interval is a range of values that is likely to include the population value with a degree (i.e., 95%) of confidence.

\*\*\*National Data are estimates that include PRAMS sites that meet or exceed the CDC response rate threshold for the survey year

**Most mothers reported having no difficulty or some difficulty.**

*% of mothers reporting functional difficulties by type and severity*

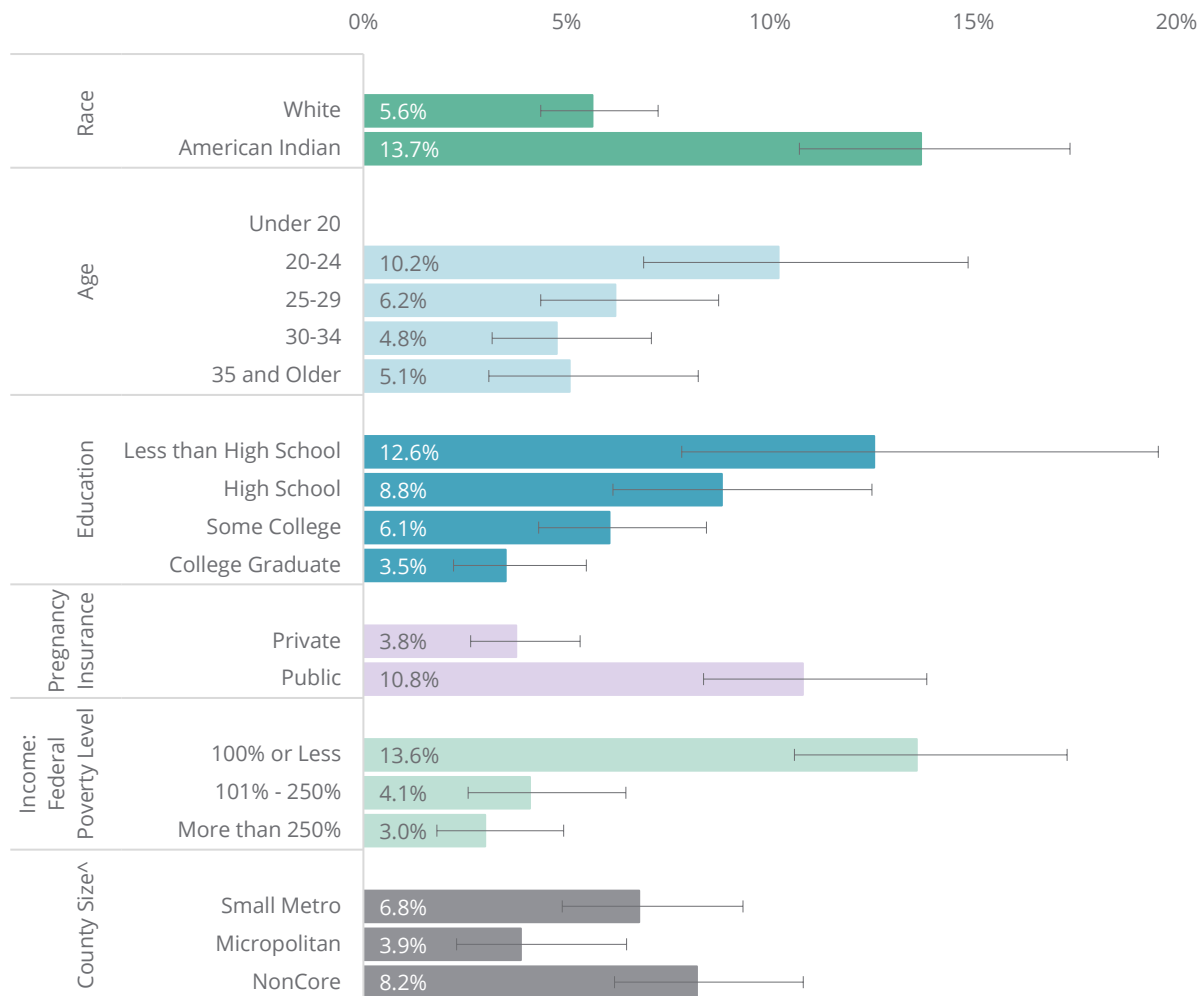


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Among mothers who reported having any difficulty, differences can be seen among subgroups of maternal characteristics. American Indian mothers, mothers on public insurance, and mothers whose income is 100% or less of the federal poverty level had higher prevalence of maternal functional difficulty. Difference in difficulty reporting can also be seen between mothers with high school or less than high school education when compared to mothers who have graduated college.

**Functional difficulties are more common among mothers who are American Indian, have less education, are publicly insured, and have income below the federal poverty line.**

*% of mothers reporting any functional difficulties by subgroup*



<sup>^</sup>NCHS Urban-Rural Classification Scheme for Counties

There are statistically significant differences in pre-pregnancy and postpartum depression between mothers reporting any difficulty versus not reporting difficulty. There are also notable differences for selected behaviors, including a lower percentage of mothers with any difficulty reporting folic acid intake before pregnancy, and higher percentage of mothers with difficulty reporting illicit drug and cigarette use during pregnancy; however, no difference among alcohol use during pregnancy was observed.

**Mothers with functional difficulties are more likely to report pre-pregnancy and postpartum depression.**

*% of mothers reporting health condition by functional difficulty*

Health Condition	Any Difficulty % (95% CI)**	No Difficulty % (95% CI)**
Pre-Pregnancy Diabetes	-	2.9% (2.1 - 4.0)
Gestational Diabetes	-	7.2% (5.9 - 8.8)
Pre-Pregnancy High Blood Pressure	-	4.5% (3.5 - 5.8)
Pregnancy Induced Hypertension, Pre-eclampsia, or Eclampsia	12.7% (7.9 - 19.9)	13.0% (11.3 - 15.0)
Pre-Pregnancy Depression	64.7% (54.6 - 73.6)	20.8% (18.6 - 23.1)
During Pregnancy Depression	-	18.4% (16.4 - 20.7)
Postpartum Depression	39.3% (29.7 - 49.7)	13.6% (11.8 - 15.5)

**Mothers with functional difficulties are less likely to report pre-pregnancy vitamin use and more likely to report illicit drug and cigarette use during pregnancy.**

*% of mothers reporting health behaviors by functional difficulty*

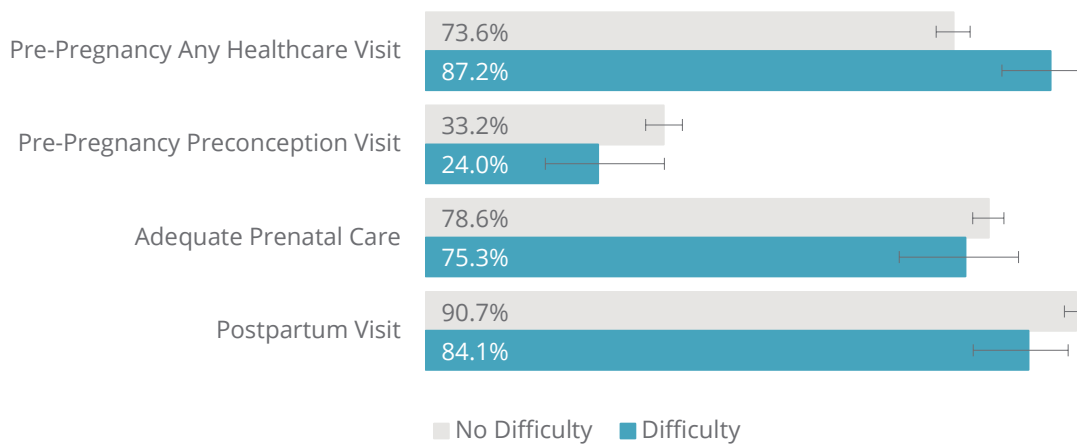
Health Behavior	Any Difficulty % (95% CI)**	No Difficulty % (95% CI)**
Nutrition      Pre-Pregnancy Vitamin/Folic Acid Intake	33.9% (25.1 - 44.1)	49.7% (47.0 - 52.4)
Substance Use	During Pregnancy Alcohol Use	10.4% (6.1 - 17.0)
	During Pregnancy Illicit Drug Use	31.5% (22.8 - 41.8)
	During Pregnancy Cigarette Smoking	29.5% (21.1 - 39.7)
Infant Care	Ever Breastfed	89.5% (81.6 - 94.2)
	Breastfeeding at Eight Weeks	-
	Infant Safe Sleep‡	-

‡Infant Safe Sleep = Infant is most often laid down to sleep on their back, on a separate (always or often) approved sleep surface (usually), and without soft objects or loose bedding.

More mothers reporting difficulties had a pre-pregnancy visit for any reason, while they had less preconception visits. Healthcare education and screening were similar among the groups except for receipt of folic acid recommendation and depression screening. Having received a folic acid recommendation from a health care provider was significantly less among those reporting a difficulty (19% versus 38%), which may be due in part to fewer preconception visits. Those reporting a difficulty had a higher rate of before pregnancy depression screening (82% versus 66%).

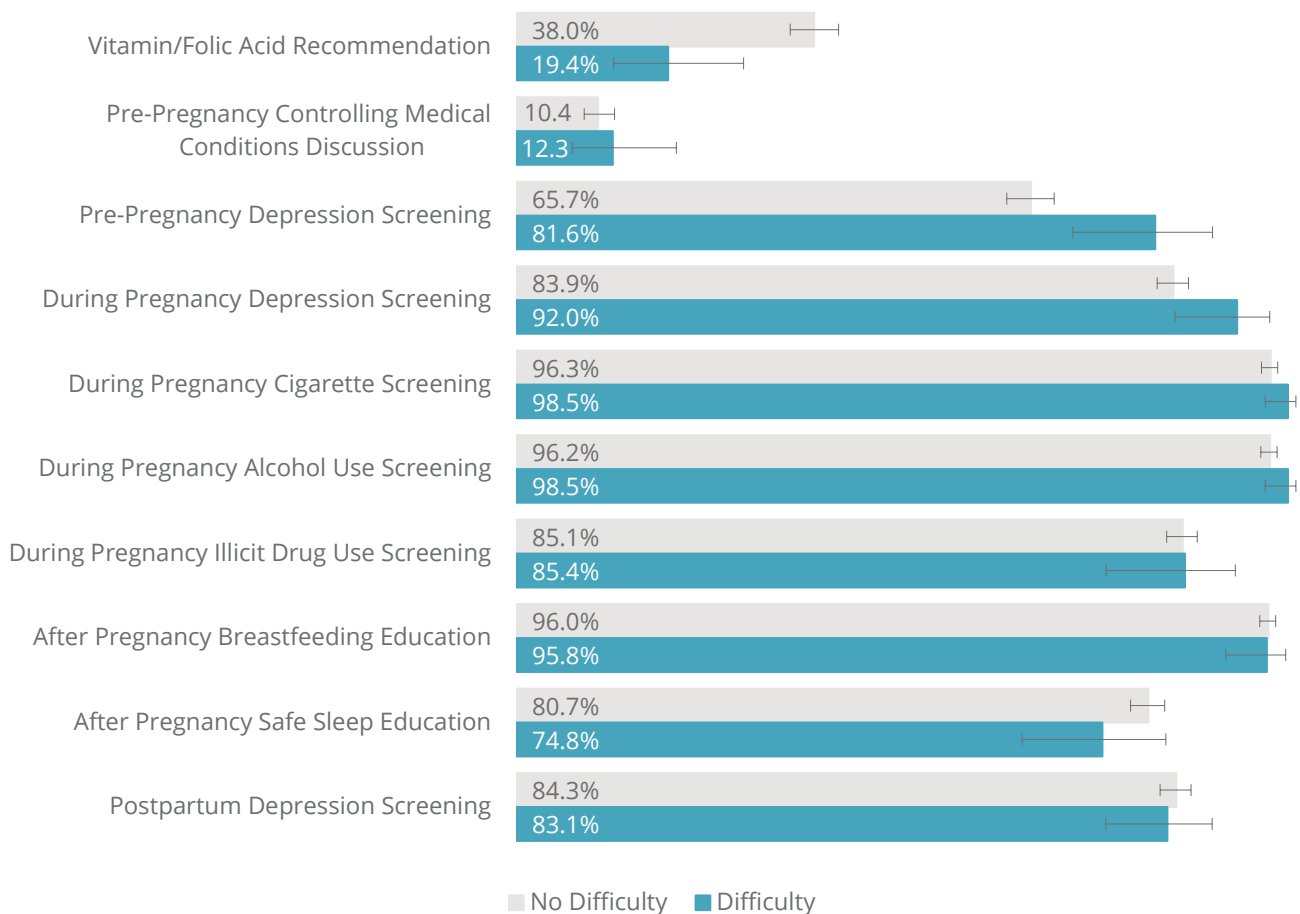
**Mothers with functional difficulties are more likely to report pre-pregnancy healthcare visits and less likely to have preconception care.**

*% of mothers reporting healthcare utilization by functional difficulty*



**Mothers with functional difficulties are less likely to report receiving a vitamin recommendation, but more likely to report having been screened for depression before pregnancy.**

*% of mothers reporting healthcare education or screening by functional difficulty*



## **Resources**

[NACCHO's Pregnancy and Motherhood in Women with Disabilities Website](#)

[CDC's Supporting Women with Disabilities Website](#)

[CDC's Disability and Health Information Website](#)

[Baylor College of Medicine Center for Research on Women with Disabilities Website](#)

## **References**

1. Madans, J.H., Loeb, M.E., Altman, B.M. (2011). *Measuring disability and monitoring the UN convention on the rights of persons with disabilities: The work of the Washington group on disability statistics*. BMC Public Health 11(4). doi: 10.1186/1471-2458-11-S4-S4.
2. Centers for Disease Control and Prevention, National Center for Health Statistics, 2022. *Washington Group on Disability Statistics: Rationale for the Short Set*. [Online] Available at: [https://www.cdc.gov/nchs/washington\\_group/wg\\_rationale.htm](https://www.cdc.gov/nchs/washington_group/wg_rationale.htm)

## **Suggested Citation**

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## **Questions?**

Visit our website at <https://dphhs.mt.gov/prams> or  
Contact Montana PRAMS at 406-444-1921 or [PRAMS@mt.gov](mailto:PRAMS@mt.gov)

