PRAMS Reproducible Report for GA in 2018
Example Report from TIDAL Course - Summer 2025

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Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS is "an ongoing, site-specific, and population-based surveillance system. PRAMS is designed to identify groups of women and infants at high risk for health problems, to monitor changes in health status, and to measure progress towards goals in improving the health of mothers and infants."

- You can request access to the data from the CDC's PRAMS Portal.
- Here is the link to the PRAMS codebook for Phase 8 Automated Research File Codebook.

For this example report we will be looking at these variables from the PRAMS 8 dataset:

- `BF5EVER` - Breastfeed ever
- `VITAMIN` - Multivitamin – # of times /wk
- `MAT_AGE_PU` - Maternal age grouped

Specifically, we will try to replicate the statistics for the Selected 2016-2022 Maternal and Child Health (MCH) Indicators for GA from any of the years from 2017-2021 which had metrics reported for GA.

MCH Indicators for GA between 2017-2021 for "Ever Breastfed".

Here are the Maternal and Child Health (MCH) Indicators for GA between 2017-2021 for "Ever Breastfed".

Table 1: Ever Breastfed

Year	Unweighted Total Sample	Unweighted Frequency	Weighted %	Lower 95% Confidence Interval	Upper 95% Confidence Interval
2017	919	749	85.2	81.6	88.2
2018	735	605	83.0	79.2	86.3
2019	766	615	79.8	75.8	83.2
2020	677	563	81.2	77.1	84.7
2021	757	590	79.8	75.9	83.3

Estimates for "Ever Breastfed" in GA in 2018.

Here are the estimates computed using the `survey` package and the `gtsummary` package to make a nicely formatted table.

Characteristic	Weighted total (N)	Weighted Count[1]	95%CI
BF5EVER.f	119,097	98,909 (83%)	79.2-86.3
Unknown		2,443	

[1]n (%)

MCH Indicators for GA between 2017-2021 for "Multivitamin use 4+ times a week during the month before pregnancy".

Here are the Maternal and Child Health (MCH) Indicators for GA between 2017-2021 for "Multivitamin use 4+ times a week during the month before pregnancy".

Table 2: Multivitamin use 4+ times a week during the month before pregnancy

Year	Unweighted Total Sample	Unweighted Frequency	Weighted %	Lower 95% Confidence Interval	Upper 95% Confidence Interval
2017	953	298	31.1	26.1	34.5
2018	766	280	35.9	31.6	40.4
2019	783	278	38.3	34.0	42.7
2020	690	247	35.9	31.5	40.7
2021	781	328	41.1	36.7	45.6

Estimates for "Multivitamin use 4+ times a week during the month before pregnancy" in GA in 2018.

Here are the estimates computed using the `survey` package and the `gtsummary` package to make a nicely formatted table.

Characteristic	Weighted total (N)	Weighted Count[1]	95%CI
VITAMIN_4plus.f	119,825		31.6-40.4
3x/week or less		76,796 (64%)	
4x/week or more		43,029 (36%)	
Unknown		1,715	

[1]n (%)

Logistic Regression - Breastfed Ever by Maternal Age and Multivitamin Use

Look at predicting "Ever Breastfed" by multivitamin use and maternal age.

Characteristic	OR[1]	95% CI[1]	p-value
Maternal age grouped	1.06	1.02, 1.10	0.001
VITAMIN_4plus.f			
3x/week or less	—	—	
4x/week or more	1.25	0.82, 1.92	0.3

[1]OR = Odds Ratio, CI = Confidence Interval

Unweighted Model - not adjusted for complex survey sampling weights

Weighted Model - adjusted for complex survey sampling weights

Table 3: Weighted Model for Ever Breastfed by Age and Multivitamin Use

	Beta	SE Beta	Odds Ratio	p-value
Intercept	-0.5354428	0.6939081	0.585410	0.4405833
Maternal Age	0.0768194	0.0262535	1.079847	0.0035403
Multivitamin 4x/wk or more	0.0809704	0.2893324	1.084339	0.7796707