

West Virginia PRAMS 2018 Annual Report

Pregnancy Risk Assessment Monitoring System

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August 2021

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Introduction

Purpose of the Pregnancy Risk Assessment Monitoring System (PRAMS)

West Virginia PRAMS is a joint research project between the West Virginia Department of Health and Human Resources Office of Maternal, Child and Family Health and the Centers for Disease Control and Prevention (CDC). The project is an on-going, population-based surveillance system designed to identify maternal attitudes and experiences before, during and after pregnancy.

PRAMS was developed in 1987 by the CDC because infant mortality rates were not declining as rapidly as they had in previous years, and the number of low birthweight babies had changed little in the previous 20 years. Research indicates that maternal behaviors during pregnancy influence infant birthweight and death rates. The goal of PRAMS is to identify maternal risk behaviors that may affect both maternal and infant health.

Each month, approximately 200 mothers are randomly selected from the West Virginia Birth Certificate Registry and asked to participate in the PRAMS survey. All West Virginia mothers who have had a live birth have about a one in fourteen chance of being chosen two to four months after their baby's birth. Selected mothers are contacted first by mail and asked to complete a questionnaire; then, after several attempts by mail, the non-respondents are called and asked if they would like to participate by phone. After completion of the survey, each participant receives a special gift.

PRAMS provides data not available from other sources about pregnancy and the first few months after birth. This information can be used to identify groups of mothers and babies at high risk for health problems, to monitor changes in health status and to measure progress toward goals in improving the health status of mothers and infants. PRAMS information is also used by state and local governments to plan and review programs and policies intended to decrease poor health outcomes among mothers and babies.

Technical Notes

This Surveillance Report covers a variety of perinatal and infant health topics. West Virginia data were collected by the PRAMS questionnaire and West Virginia Vital Statistics in 2018. A new phase of the survey, Phase 8, was implemented in 2016 where new content was added, and some questions were removed. Selection of the questions was determined by input from the West Virginia PRAMS Steering Committee, including the PRAMS Director and Coordinator. Topics are broken down into several categories: family planning, prenatal care, pregnancy risk factors, infant health and care, maternal health and care and state-interest perinatal topics and services. Statewide yearly trend data are reported in graphs and charts throughout the report along with additional descriptive narrative.

It is important to remember that PRAMS data collected from the questionnaire are self-reported by participants. After data collection ends each year, survey data are linked with appropriate birth certificate data. The combined birth certificate/survey database is then weighted by the CDC to adjust for sample design, non-response and omissions in the sampling frame.¹ This weighted dataset is an estimation, reflective of West Virginia's PRAMS eligible population (i.e., residents who delivered a live infant during the survey year of interest). The data methods used by West Virginia PRAMS are standardized CDC protocols used by all participating PRAMS states.

Each participating states' survey is unique, as states have the ability to add or eliminate topics based on interest when developing their surveys. Previously each state had to reach a minimum 60% survey completion rate before data was considered substantial, currently that threshold decreased to 55% for valid data reporting purposes. PRAMS states not achieving the threshold minimum for a particular year are *not* included in the collective data. As of 2019, 47 US states and New York City, Puerto Rico, the District of Columbia and the Great Plains Tribal Chairmen's Health Board (GPTCHB) were participating in PRAMS. For more details concerning state participation and PRAMS data availability, visit <http://www.cdc.gov/prams/index.htm>.

A copy of the West Virginia PRAMS questionnaire is located in Appendix A for reference purposes.

¹ CDC PRAMS Methodology: <http://www.cdc.gov/PRAMS/methodology.htm>

West Virginia PRAMS Highlights

Family Planning

- 22.8% of mothers responded that their pregnancy was unintended.²
- 60.9% of mothers reported not using contraception at the time of conception.

Prenatal Care

- 85.5% of mothers initiated prenatal care in the 1st trimester of pregnancy.
- 93.5% of mothers were asked during their prenatal care visits if they were smoking.
- 88.4% were asked if they planned to use birth control after their new baby was born.
- Mothers responded that the most common conversation they had with their prenatal care provider was – “*Medicines that are safe to take during my pregnancy*”

Risk Factors

- 24.9% of all mothers smoked during the last 3 months of pregnancy.
- 14% were not advised to quit smoking during any of their prenatal care visits.
- 1.9% of mothers said they used e-cigarettes during the last 3 months of their pregnancy.
- 42.6% of mothers drank alcohol during the 3 months prior to pregnancy.

Infant Health and Care

- 85.9% of infants were placed to sleep on their backs.
- 65.9% of mothers reported their infants *always* slept alone in their own crib or bed.
- 72.4% of mothers initiated breastfeeding.
- 94.2% of mothers reported smoking isn’t allowed anywhere inside their home.

Maternal Health and Care

- 79.6% of mothers used contraception postpartum, birth control pills was the most common method used.
- 87.2% of mothers went in for their postpartum checkup.
- 36% of mothers had their teeth cleaned during their pregnancy.
- 88.4% of mothers did not have gestational diabetes during their pregnancy.

² The phrase “wasn’t sure what I wanted” was previously included in unintended pregnancies. 2016 report data to present is comparable.

PRAMS Maternal Demographics

Characteristic	PRAMS Eligible Population*		PRAMS Survey Participants	
	Population Size*	Percent	Respondents†	Estimated Percent‡
Total	15,726	--	688	--
Age (years)				
<20	1,207	7.7	59	7.8
20-24	4,565	29.0	183	28.2
25-34	8,262	52.5	361	52.1
35+	1,692	10.8	85	12.0
	15,726		688	
Race				
White	14,257	91.1	637	92.3
Black	547	3.5	25	4.1
Hispanic	315	2.0	9	1.1
American Indian	14	0.1	1	0.3
Asian/Pac. Islander	139	0.9	3	0.6
Other/Mixed	374	2.4	9	1.5
	15,646		684	
Annual Household Income				
<\$16,000	--	--	178	28.3
\$16,001-\$40,000	--	--	175	30.9
\$40,001-\$85,000	--	--	124	21.7
≥\$85,001	--	--	99	19.0
			576	
Education (yrs.)				
<12	2,097	13.4	93	12.9
12	5,159	33.0	249	34.7
>12	8,360	53.5	342	52.4
	15,616		684	

Characteristic	PRAMS Eligible Population*		PRAMS Survey Participants	
	Population Size*	Percent	Respondents†	Estimated Percent‡
Marital Status				
Married	8,285	52.9	352	51.1
Unmarried	7,388	47.1	332	48.9
	15,673		684	
Birthweight§				
LBW (<2,500 g)	1,340	8.5	276	8.5
NBW (≥2,500 g)	14,384	91.5	412	91.5
	15,724		688	
Parity				
1 st Birth	6,000	38.3	291	40.9
2 nd or later	9,680	61.7	393	59.1
	15,680		684	
Delivery payment method				
Medicaid	--	--	378	56.9
Other	--	--	286	43.1
			664	

*PRAMS Eligible Population = all West Virginia mothers who gave birth to a live-born infant in a referenced year (2018). These data are taken from West Virginia Vital Statistics Birth Certificate information.

†Respondents = the actual number of mothers who fall into the referenced demographical group who participated in the survey.

‡Estimated Percent = the number of mothers who would fall into a demographical group if the survey were given to all PRAMS eligible mothers. These values are determined by weighting PRAMS respondents' data.

§Low Birthweight is considered a baby born weighing less than 5 pounds 8 ounces or less than 2,500 grams. Normal Birthweight is a baby born weighing 5 pounds 8 ounces or more or 2,500 grams or more. LBW = Low Birthweight; NBW = Normal Birthweight.

Family Planning



Pregnancy Intention

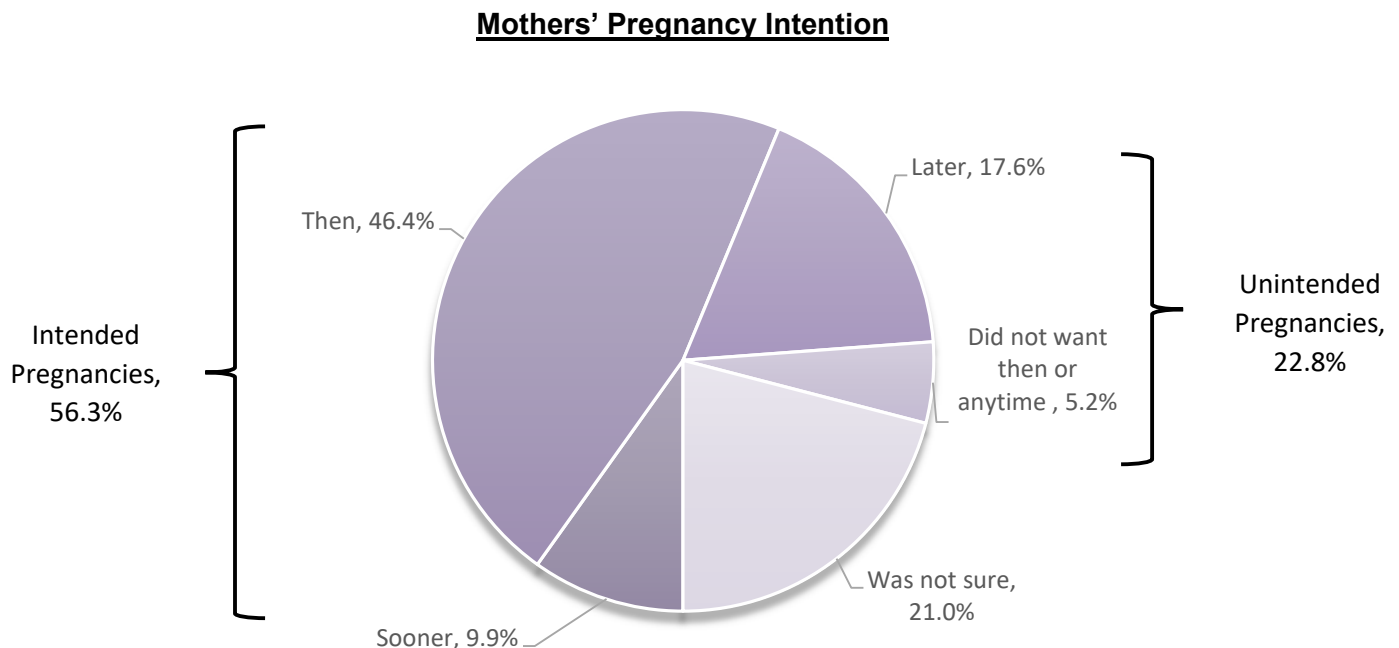
An unintended pregnancy is a pregnancy that is mistimed, unplanned or unwanted at the time of conception. Unintended pregnancies are associated with an increased risk of problems for the mother and baby. If a pregnancy is not planned before conception, a woman may not be in optimal health for childbearing. For example, a woman with an unintended pregnancy may delay prenatal care that may potentially lead to an adverse pregnancy outcome.

PRAMS asks mothers how they felt about becoming pregnant with their most recent baby. Those mothers who reported they wanted to be pregnant “later”, “didn’t want to be pregnant at any time in the future” were grouped as having an unintended pregnancy. Mothers who reported wanting to be pregnant “sooner” or “then” were grouped as having an intended pregnancy. Mothers who reported “I wasn’t sure what I wanted” were classified as unsure.³

At the time of the survey, West Virginia’s prevalence of unintended pregnancy was 22.8% in 2018 (**Figure 1**). The highest rates of unintended pregnancy were prevalent in mothers 17 years and younger, were high school graduates and those who make \$20,000 or less (**Figure 2**).

Question 13: Thinking back to *just before* you got pregnant with your new baby, how did you feel about becoming pregnant?

Figure 1.



³The phrase “wasn’t sure what I wanted” was previously included in unintended pregnancies. 2016 report data to present is comparable.

Figure 2.

Demographics of Mothers' Pregnancy Intention



Preconception Contraception Use

The best way to decrease the risk of unintended pregnancy among women who are sexually active is to use effective birth control correctly and consistently.

PRAMS wanted to find out if mothers who said they were not trying to get pregnant were using some form of birth control at the time of their conception.

In 2018, 53.3% of mothers stated they were trying to become pregnant at the time they became pregnant in West Virginia. Among the mothers who reported they were not trying to get pregnant during their current pregnancy, only 39.1% were using contraception prior to pregnancy (**Figure 3**). The highest rates of mothers reporting no contraception use prior to pregnancy were among mothers 25-34 years of age, some high school education or mothers with household incomes of \$20,001 to \$40,000 (**Figure 4**).

Question 16: When you got pregnant with your new baby, were you trying to get pregnant?

Question 17: When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant?

Figure 3.

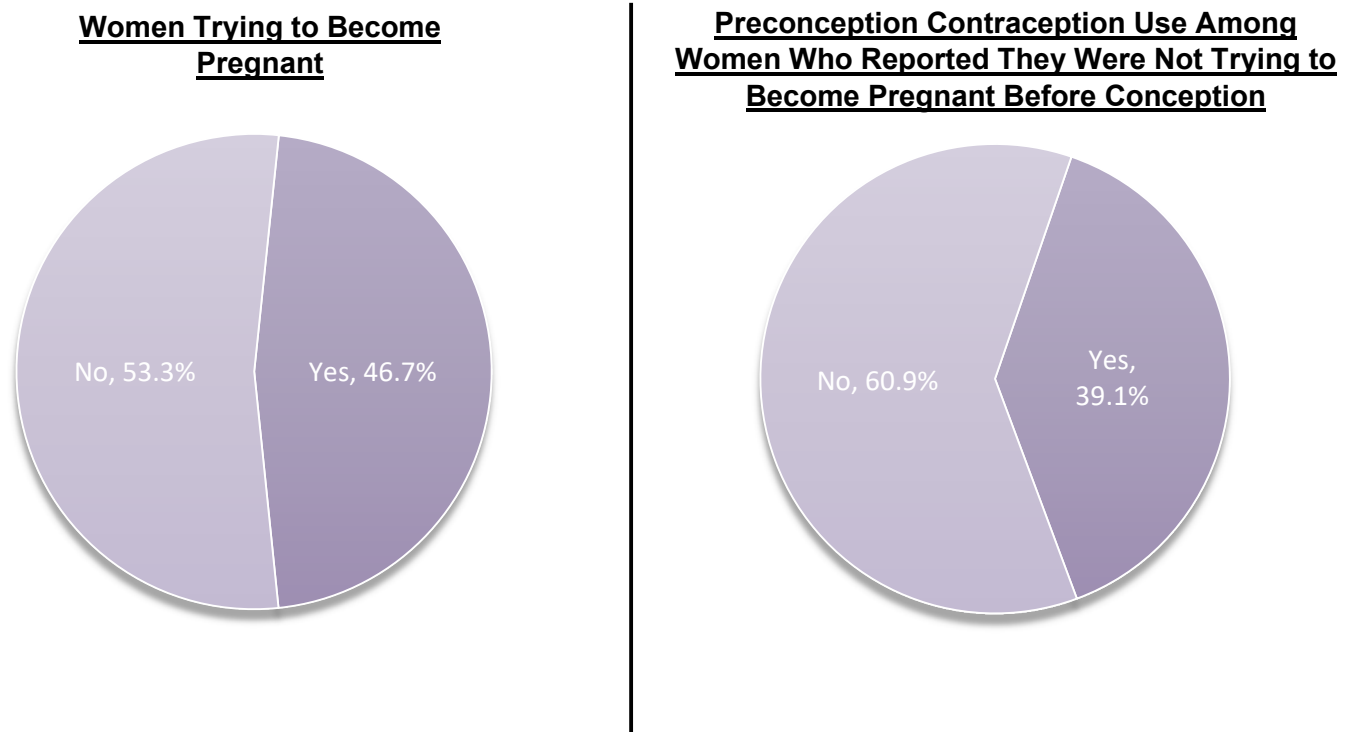


Figure 4.

Demographics of Mothers' Contraception Use Prior to Pregnancy



Postpartum Contraceptive Use

Postpartum contraception use is important in preventing unintended pregnancies and short birth intervals, as these pregnancies are associated with adverse health outcomes for both mother and baby. Those risks include increased chance of low birthweight and/or preterm birth.

PRAMS asked mothers if they were using any form of contraception after their most recent pregnancy. Those mothers indicating they were not using any form of contraception were then asked to indicate the reasons for not using it. Those mothers indicating they were using contraception after their most recent pregnancy were then further asked about the type used.

West Virginia's prevalence of postpartum contraception use was 79.6% in 2018 (**Figure 5**). Mothers stated the most common reason for not using postpartum contraception in 2018 was "I don't want to use birth control" (**Figure 6**). Among mothers who did use postpartum contraception, the most common methods were birth control pills and condoms (**Figure 7**).

Question 61: Are you or your husband doing anything now to keep from getting pregnant?

Question 62: What are your reasons or your husband's or partner's reasons for not doing anything to keep from getting pregnant now?

Question 63: What kind of birth control are you or your husband or partner using now to keep from getting pregnant?

Figure 5.

Postpartum Contraception Use Among Mothers

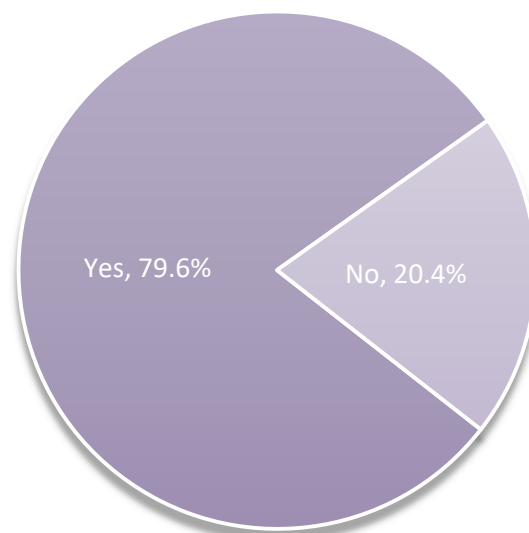


Figure 6.

Reasons for Not Using Birth Control Postpartum

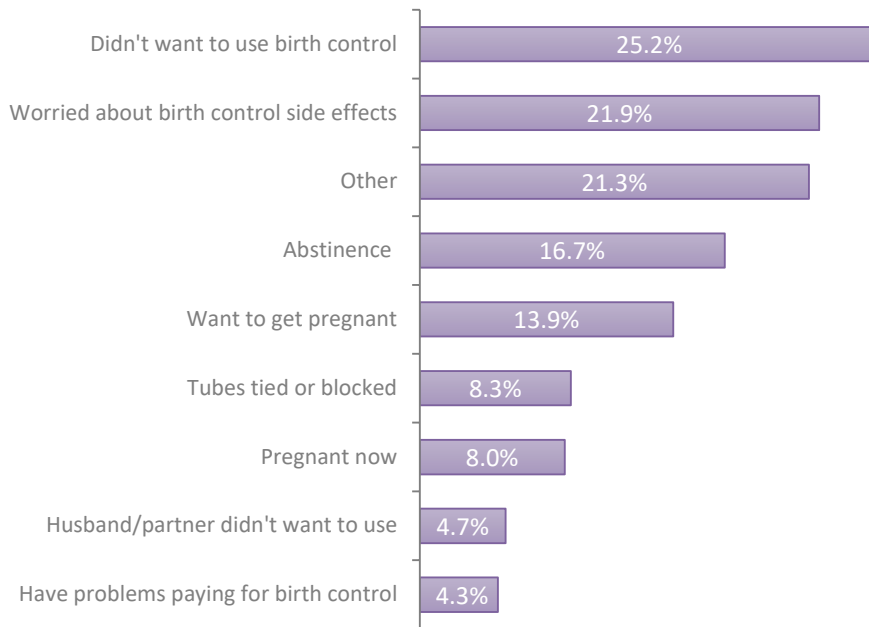
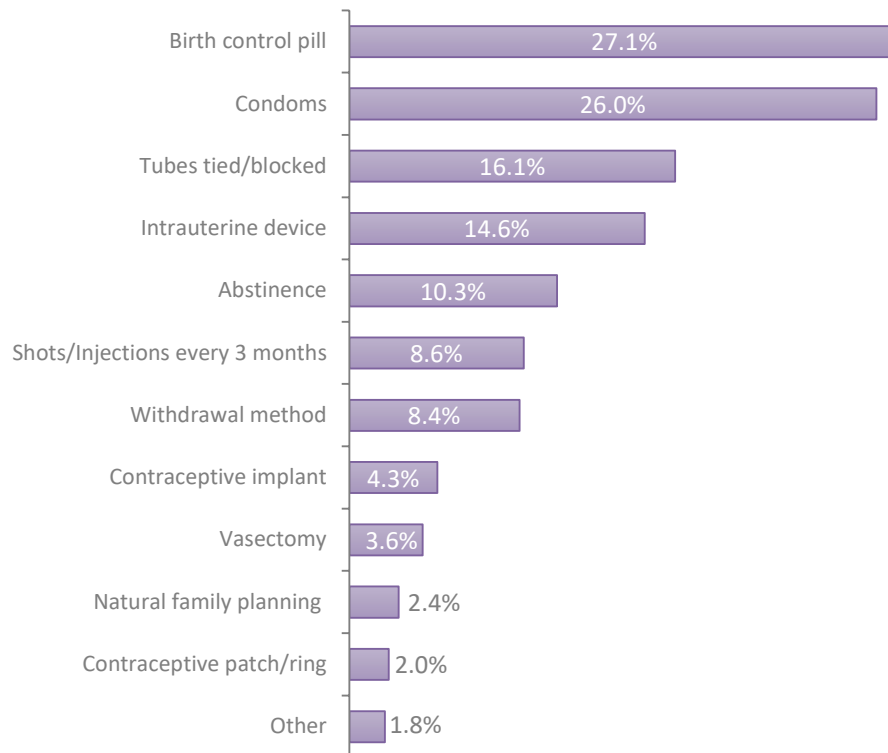


Figure 7.

Methods of Postpartum Contraception



Prenatal Care



Prenatal Care Initiation

Prenatal care (PNC) visits are vital for the health of both mother and baby. It is important for pregnant mothers to begin prenatal care in the 1st trimester of pregnancy (within the first 12 weeks). Early initiation of prenatal care allows health care providers to identify and manage a woman's risk factors and health conditions.

PRAMS asked mothers what month in their pregnancy they began their prenatal care. The information is used to determine the prevalence of mothers starting prenatal care in the 1st trimester.

In West Virginia, 85.5% of mothers reported initiating prenatal care during the 1st trimester of their pregnancy in 2018 (**Figure 8**). The highest rates of mothers reporting no prenatal care initiation in the 1st trimester were mothers 17 years or younger, those who had some high school education or mothers with a household income of \$20,000 or less (**Figure 9**).

Question 18: How many weeks or months pregnant were you when you had your first visit for prenatal care?

Figure 8.

Mothers Who Initiated Prenatal Care in the 1st Trimester

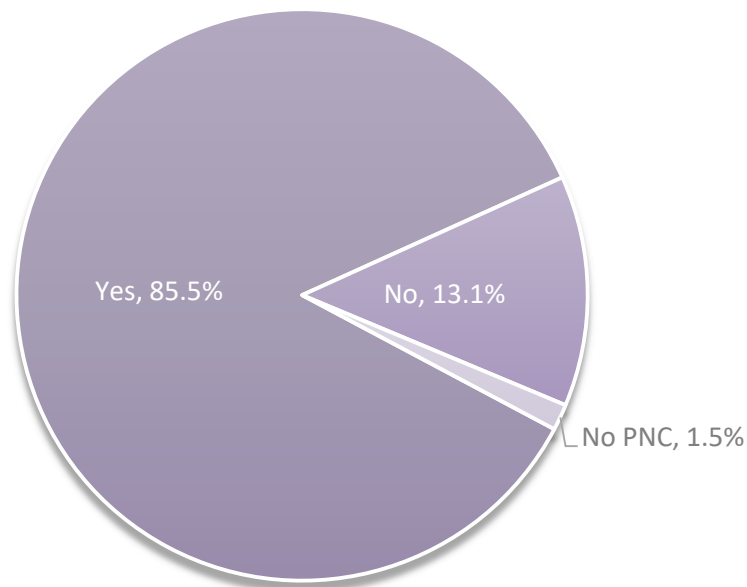


Figure 9.

Demographics of Prenatal Care Initiation During the 1st Trimester



Prenatal Care Content

In addition to identifying maternal risks and behaviors, prenatal care visits are an optimal time to educate mothers on important health issues, such as their diet and nutrition, exercise, immunizations, weight gain, and abstaining from drugs and alcohol. Health care providers can use health and behavior information gathered at early prenatal care assessments to make referrals and recommendations for additional care and services if they are needed.

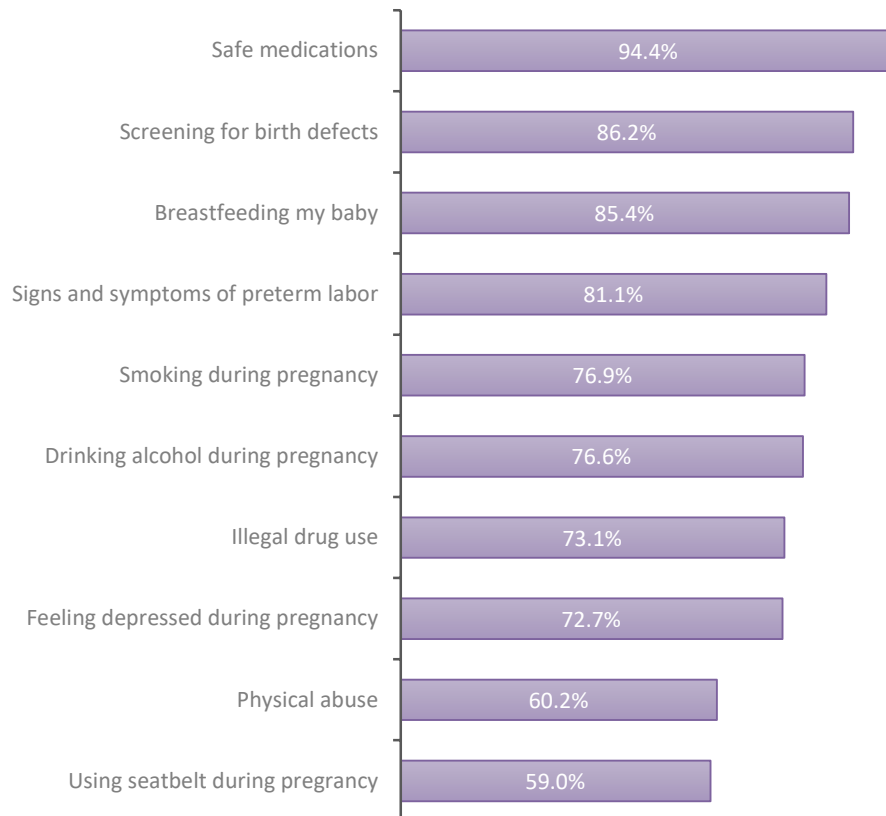
PRAMS asked mothers about various topics discussed, questions asked and services used during their prenatal visits. These questions allow a better understanding of the content and quality of prenatal care visits mothers are receiving in West Virginia.

In 2018, more than 80% of mothers reported hearing information about: medicines that were safe to take during pregnancy, screen for birth defects that run in the family, information about breastfeeding their new baby and signs and symptoms of preterm labor. (Figure 10). However, a little less than 60% of mothers reported getting information about wearing a seatbelt during pregnancy (Figure 10).

Question 19: During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk to you about any of the things listed below?

Figure 10.

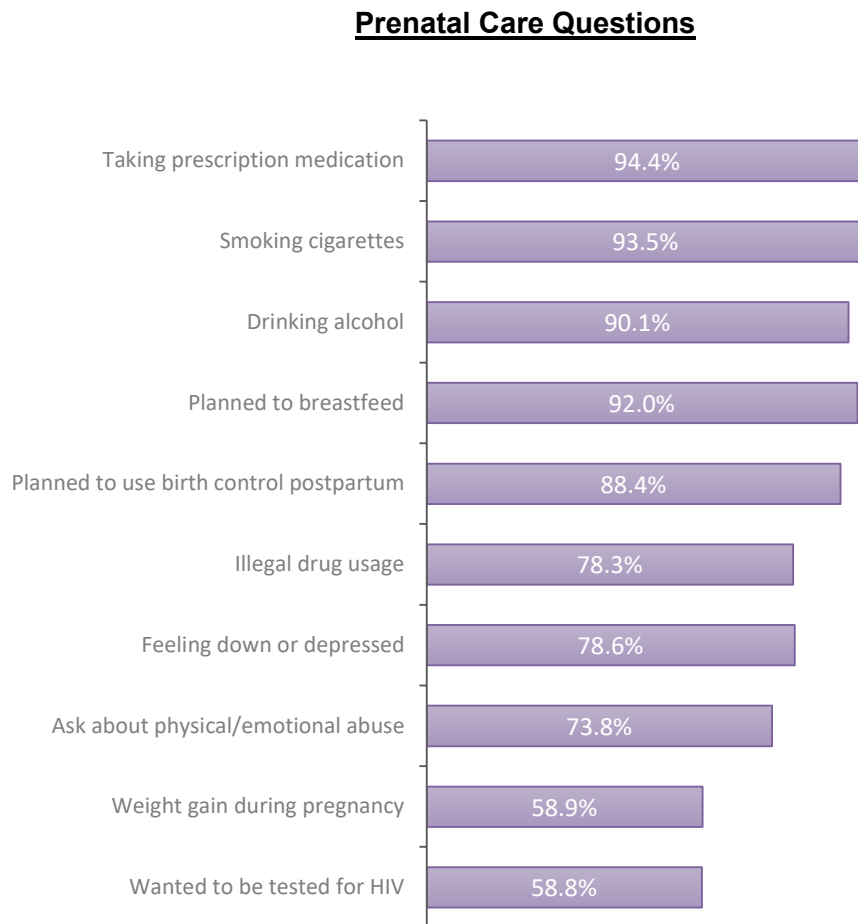
Prenatal Health and Well-being Discussions During Prenatal Visits



Over 80% of mothers in 2018 reported they were asked by their prenatal care providers about prescription medications they took, smoking cigarettes, alcohol consumption, alcohol consumption, plans to breastfeed and plans to use birth control postpartum. For the same time period, less than 60% of mothers reported prenatal care providers were *least* likely to ask if they wanted to be tested for HIV or AIDS or about weight gain during pregnancy (Figure 11).

Question 20: During any of your prenatal care visits did a doctor, nurse, or other health care worker ask you—

Figure 11.



Multivitamin Use

There are many essential vitamins that are needed early in pregnancy for healthy fetal development. This period can be before a woman realizes she is pregnant, therefore daily vitamin use among women of child-bearing age is important.

PRAMS asked mothers if they took a multivitamin, a prenatal vitamin, or a folic acid vitamin during the month before they became pregnant with their new baby. This question allows PRAMS to establish the number of mothers who take a daily multivitamin before pregnancy.

In 2018, 32.5% of mothers took a vitamin daily, an increase from 30.8% in 2017 (**Figure 12**). Mothers *more likely* to report no vitamin usage prior to pregnancy were mothers with some high school education, mothers ages 17 years and younger and mothers whose household income was less than or equal to \$20,000 (**Figure 13**).

Question 6: During the month before you got pregnant with your new baby, how many times a week did you take a multivitamin, a prenatal vitamin, or a folic acid vitamin?

Figure 12.

Multivitamin Usage Frequency

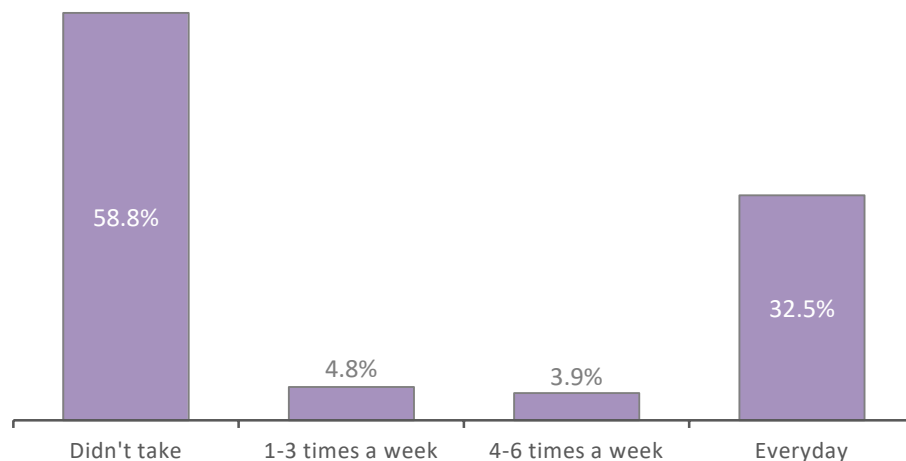


Figure 13.

Demographics of Mothers' Multivitamin Use Prior to Pregnancy



Flu Vaccination

The CDC recommends pregnant women receive a flu shot during their pregnancy. Changes in the immune system, lungs and heart during pregnancy make mothers more susceptible to the flu. Research has shown that getting a flu shot during pregnancy helps protect the mother and baby and does not harm the fetus.

PRAMS asks mothers if a doctor, nurse or other health care worker offered them or recommended they get a flu shot and whether or not they received a flu shot before or during pregnancy. This allows PRAMS to determine the percentage of pregnant mothers who received a flu shot and then disseminate the data to health care providers.

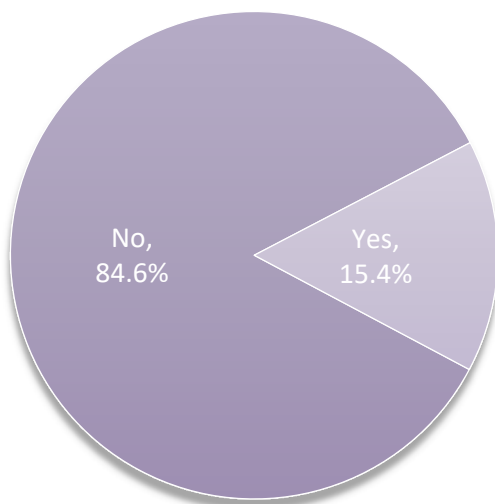
The rate of mothers in West Virginia who received a flu shot during pregnancy increased from 42.2% in 2017 to 40.7% in 2018. Around 84.6% stated that they were offered a flu shot or were told to get one in 2018, but only 16.2% received one before pregnancy (**Figure 14**). Mothers *more likely* to report that they didn't receive a flu shot either before pregnancy or during were mothers ages 17 and younger, those with some high school education or a household income of \$20,000 or less in 2018 (**Figure 15**).

Question 21: During the 12 months before the delivery of your new baby, did a doctor, nurse, or other health care worker offer you a flu shot or tell you to get one?

Question 22: During the 12 months before the delivery of your new baby, did you get a flu shot?

Figure 14.

Women Who Were Offered a Flu Shot or Told to Get One



Women Who Received a Flu Shot Before or During Pregnancy

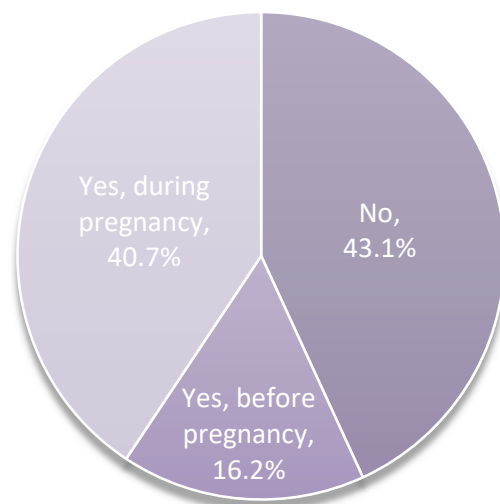
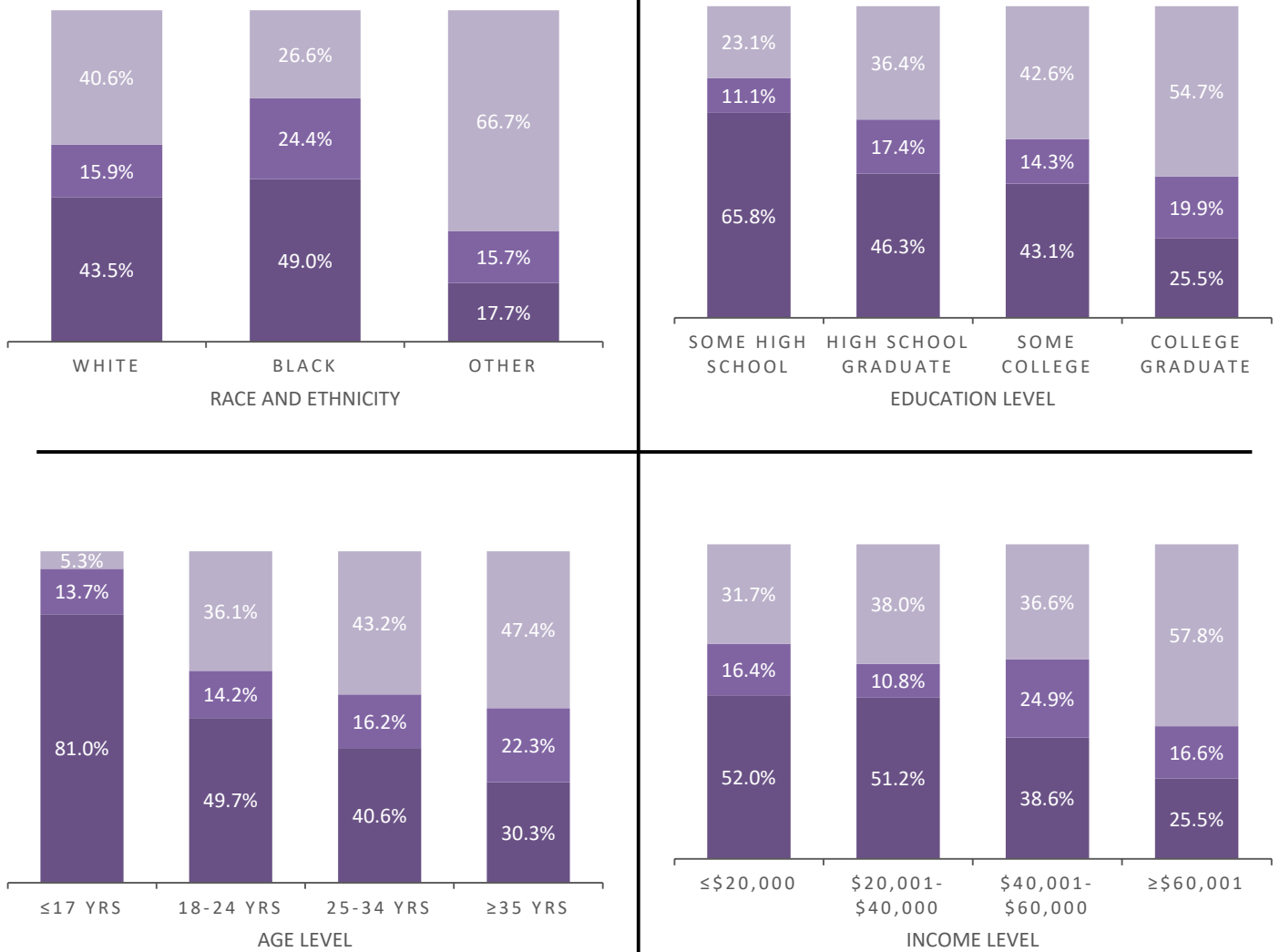


Figure 15.

Demographics of Mothers' Flu Vaccination

■ No ■ Yes, before pregnancy ■ Yes, during pregnancy



Pre-Pregnancy BMI

West Virginia has the 4th highest rate of obesity for women in the United States⁴ at 38.5% in 2018. Obesity contributes to other chronic health conditions including, but not limited to high blood pressure, type 2 diabetes, coronary heart disease, stroke, and an overall lower quality of life.

PRAMS asks mothers how much they weighed and how tall they are without shoes to determine their body mass index (BMI). The BMI helps determine if they are underweight, normal weight, overweight, or obese.

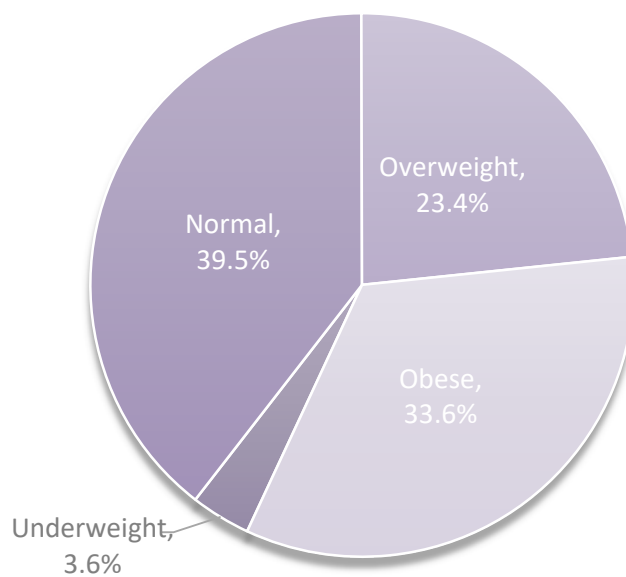
The obesity rate among pregnant mothers in West Virginia in 2017 was 30.7%, with 24.4% being overweight. That obesity rate increased slightly in 2018 to 33.6%, and the rate of overweight mothers slightly decreased to 23.4% (**Figure 16**). Mothers *more likely* to report obesity prior to pregnancy had some college education, were ages 25-34 or a household income of \$20,001-\$40,000 per year (**Figure 17**).

Question 1: How tall are you without shoes?

Question 2: Just before you got pregnant with your new baby, how much did you weigh?

Figure 16.

Mother's BMI Status Prior to Pregnancy



⁴ Centers for Disease Control and Prevention: <http://www.cdc.gov/obesity/data/prevalence-maps.html>

Figure 17.

Demographics of Mothers' BMI Status Prior to Pregnancy



Perinatal Risk Factors



Maternal Drug Usage

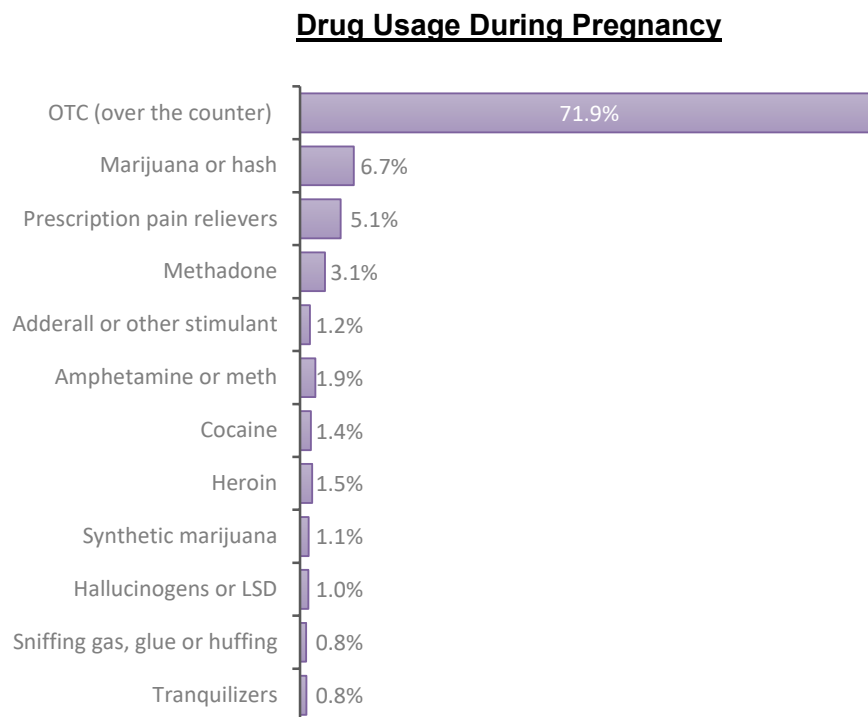
According to the Healthcare Cost and Utilization Project, West Virginia has the highest rate of Neonatal Abstinence Syndrome (NAS) in the United States as of 2017.⁵ The use of illicit drugs such as opioids and amphetamines during their pregnancy can lead to the infant developing NAS. Infants with NAS suffer from a wide array of different physical symptoms such as irritability, tremors, feeding issues and sleeping problems.

According to the latest released date in 2017, West Virginia had the highest drug overdose death rate in the United States.⁵ This increased rate correlated to the state's high rate of NAS. PRAMS asks mothers what type of drug, if any, were used during their most recent pregnancy.

Among mothers in West Virginia, 73.1% used over the counter medicine such as aspirin, Aleve or Tylenol. However, 8.3% of mothers used prescription pain relievers such as hydrocodone, oxycodone or codeine during their most recent pregnancy (**Figure 18**). Mothers *more likely* to report prescription pain reliever usage during pregnancy had some high school education, were 17 years of age or younger or had a household income of \$40,001-\$60,000 (**Figure 19**).

Question 68. During your most recent pregnancy, did you take or use any of the following drugs for any reason?

Figure 18.



⁵ Healthcare Cost and Utilization Project: <https://www.hcup-us.ahrq.gov/faststats/NASMap?setting=IP>

Figure 19.

Demographics of Mothers' Prescription Pain Reliever Usage During Pregnancy



Maternal Smoking Habits

Pregnant women face additional risks associated with smoking. They are more likely to have miscarriages, stillbirths, preterm labor and premature babies than mothers who do not smoke. Additionally, babies born to smoking mothers may be low birthweight and have slow physical growth and mental development. Smoking makes children more prone to allergies, colds, asthma, lung problems and can contribute to sudden unexplained infant death (SUID) if their mother smokes.

West Virginia has the highest prevalence of pregnant smokers in the nation. According to America's Health Rankings, in 2018 25.2% of West Virginia mothers smoked during their pregnancy.⁶ This rate is nearly three times the national average. PRAMS wanted to examine the smoking habits of mothers before, during and after pregnancy. Respondents were asked if they had smoked any cigarettes in the past two years. Those mothers who responded that they smoked within that time were asked additional questions about their smoking habits during the perinatal period.

Among mothers in West Virginia, 34.8% reported smoking three months before pregnancy in 2018 (**Figure 20**). Roughly 24.9% of mothers in West Virginia smoked during the last three months of pregnancy in 2018 (**Figure 21**). Nearly 27.8% of mothers smoked after pregnancy in 2018 (**Figure 22**). Only 63.8% of mothers reported having a doctor, nurse or health care worker talk about how smoking during pregnancy could affect their baby in 2018 (**Figure 23**).

Question 35: Have you smoked any cigarettes in the past 2 years?

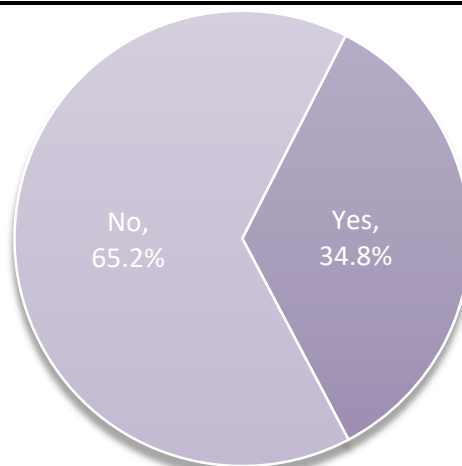
Question 36: In the three months before you got pregnant, how many cigarettes did you smoke on an average day?

Question 37: In the last three months during your pregnancy, how many cigarettes did you smoke on an average day?

Question 40: How many cigarettes do you smoke on an average day now?

Figure 20.

Smoking Status of All Mothers 3 Months Prior to Pregnancy



⁶ America's Health Rankings: https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/Smoking_pregnancy/state/ALL?edition-year=2018

Figure 21.

Smoking Status of All Mothers Last 3 Months of Pregnancy

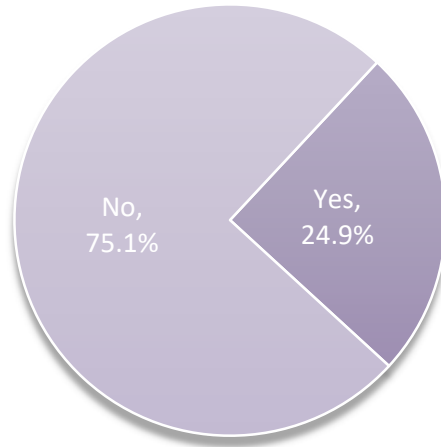


Figure 22.

Smoking Status of All Mothers At the Time of the Survey

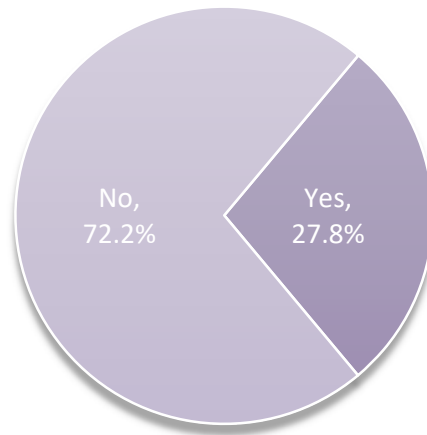
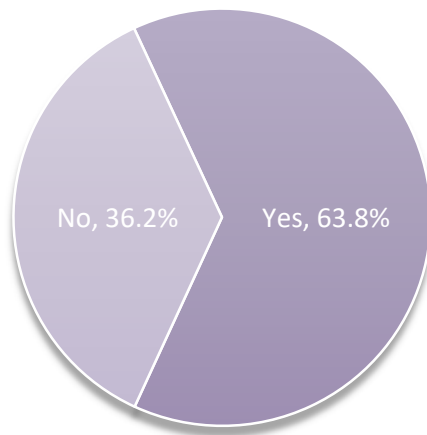


Figure 23.

Healthcare Worker Discussed How Smoking During Pregnancy Could Affect a Baby



In 2018, West Virginia mothers indicated that they were *least likely* to smoke the last 3 months of pregnancy if they were college graduates compared to mothers with some high school education. Mothers were also *least likely* to smoke the last 3 months of pregnancy if they were 17 years or younger and had a household income of \$60,001 or more compared to other income levels (**Figure 24**).

Figure 24.

Demographics of Mothers' Smoking the Last 3 Months of Pregnancy



West Virginia mothers indicated they were *least likely* to smoke after pregnancy if they were college graduates compared to other education levels in 2018. Mothers were *more likely* to smoke after pregnancy if they were between the ages of 25-34 and had a household yearly income of \$20,000 or less (**Figure 25**).

Figure 25.

Demographics of Mothers' Smoking At the Time of Survey



Around 83.6% of mothers reported they were advised to quit smoking in 2018 during their prenatal care visits (**Figure 26**). About 91.6% of mothers reported that smoking is *not* allowed anywhere in the home in 2018 regardless of if they were a smoker or not, where almost 1% stated smoking *is* allowed anywhere (**Figure 27**).

Question 32: During any of your prenatal care visits, did a doctor, nurse or other health care worker advise you to quit smoking?

Figure 26.

Mothers Who Were Advised to Quit Smoking During Their Pregnancy

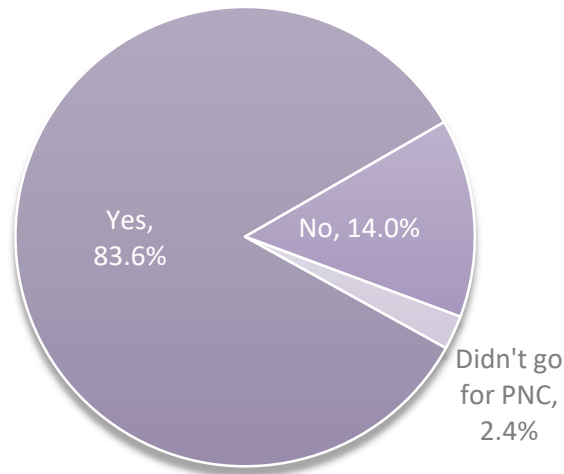
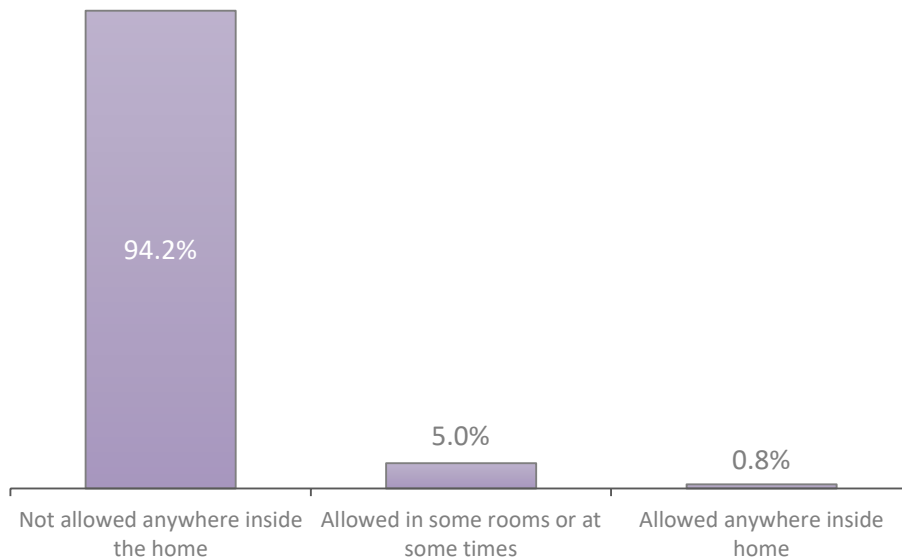


Figure 27.

Smoking Rules in the Home of Infant



In 2016, questions focused on e-cigarette or electronic nicotine product usage were added to the survey. Among all mothers, 11.4% used e-cigarettes in the past two years leading up to their pregnancy in 2018 (Figure 28). During the three months before their pregnancy, 5.7% of mothers admitted use, compared to 1.9% who used during the last three months of their pregnancy (Figure 29).

Question 37. Have you used any of the following products in the *past 2 years*?

Question 38. During the *3 months before* you got pregnant, on average, how often did you use e-cigarettes or other electronic nicotine products?

Question 39. During the *last 3 months* of your pregnancy, on average, how often did you use e-cigarettes or other electronic nicotine products?

Figure 28.

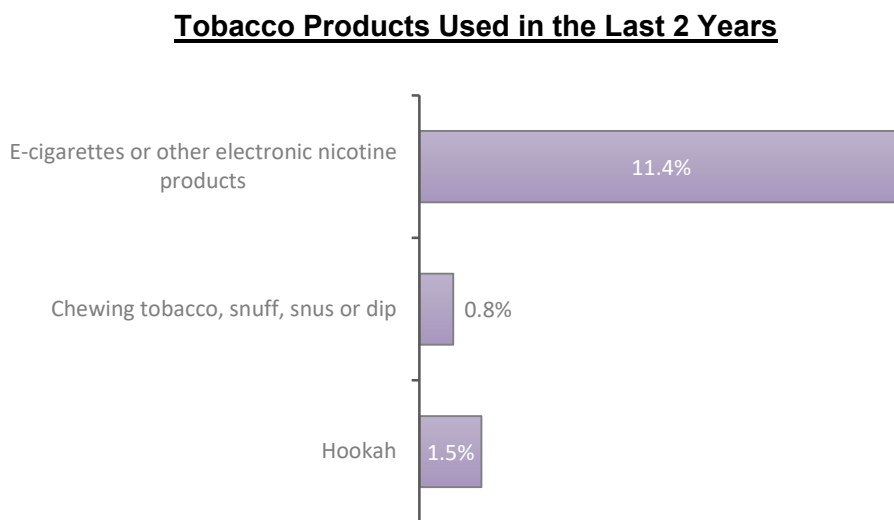
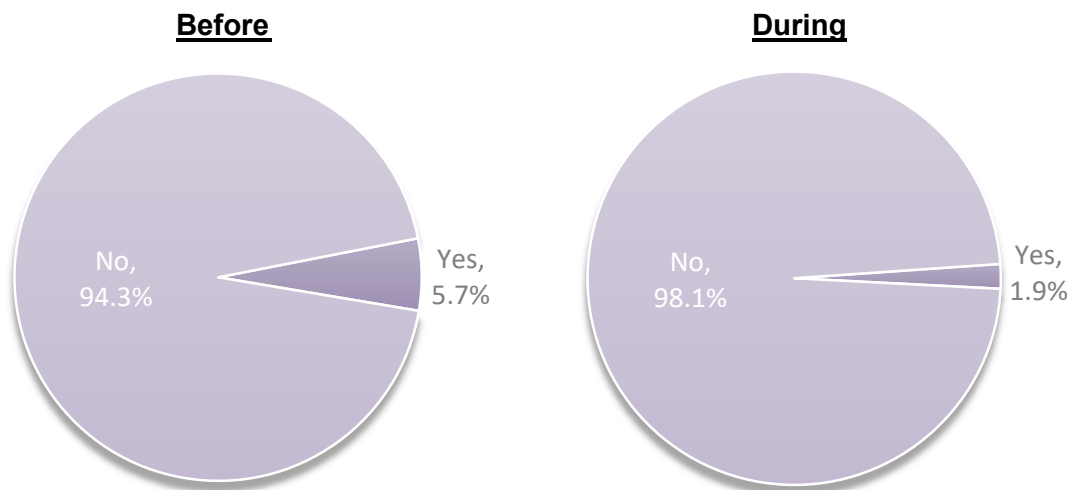


Figure 29.

E-cigarette Usage Three Months Before and Last Three Months of Pregnancy



Maternal Alcohol Consumption

Alcohol consumption is not recommended if a woman is planning on becoming pregnant, and during pregnancy. If a woman is unaware she is pregnant and consumes alcohol, her baby may be at risk for many adverse health outcomes including: abnormal facial features, smaller than normal head size, poor memory, low body weight, learning disabilities, vision or hearing problems, and problems with the heart, kidney or bones.

PRAMS asks mothers if they drank alcoholic drinks in the past two years, if they answered yes then the mothers were asked if they drank during three months before pregnancy. West Virginia rates for maternal drinking prior to pregnancy have been and continue to be lower than the national average according to America's Health Rankings.

Among mothers in West Virginia, 42.6% did drink in the two years prior to answering the survey and 57.4% did not drink during the three months before pregnancy in 2018 (**Figure 30**). Mothers were *least likely* to consume alcohol in the 3 months before pregnancy if they had some high school education, were 17 years or younger or made \$20,000 or less (**Figure 31**).

Question 40: Have you had any alcoholic drinks in the *past 2 years*?

Question 41: During the 3 months before you got pregnant, how many alcoholic drinks did you have in an average week? *Did you drink 3 months before you got pregnant? Yes/No analytic variable used*

Figure 30.

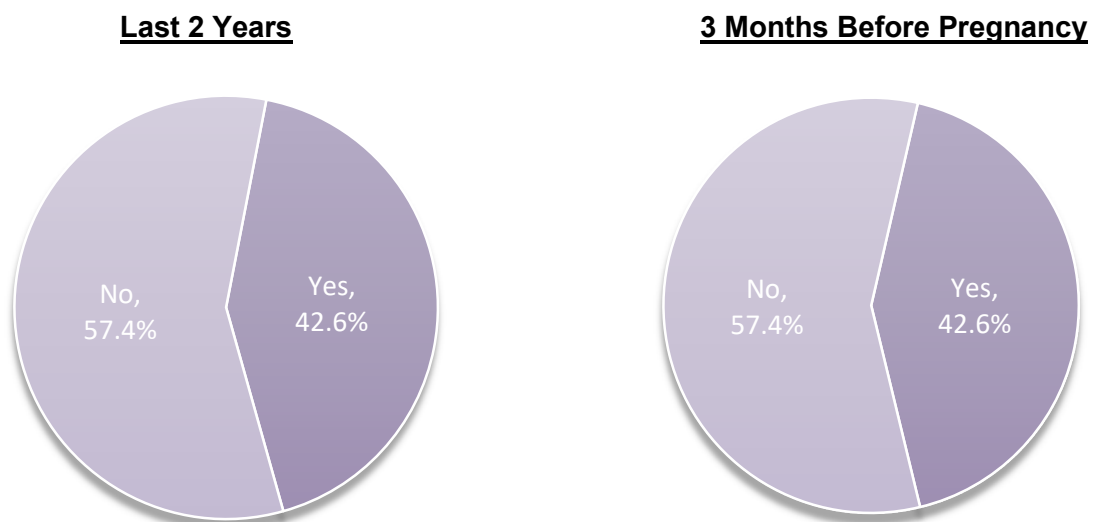


Figure 31.

Demographics of Mothers Who Consumed Alcohol 3 Months Before Pregnancy



Diabetes --- Pre-pregnancy and Gestational

West Virginia has the highest rate of diabetes among adults in the United States at 16.2%, which is higher than the national average of 10.9%.⁷ Factors that can contribute to diabetes are obesity and lack of exercise. Diabetes that occurs during pregnancy is called gestational diabetes, and usually sets in between 24 and 28 weeks of pregnancy. Gestational diabetes generally goes away after the baby is born, but the mother is more likely to develop type 2 diabetes later in life.

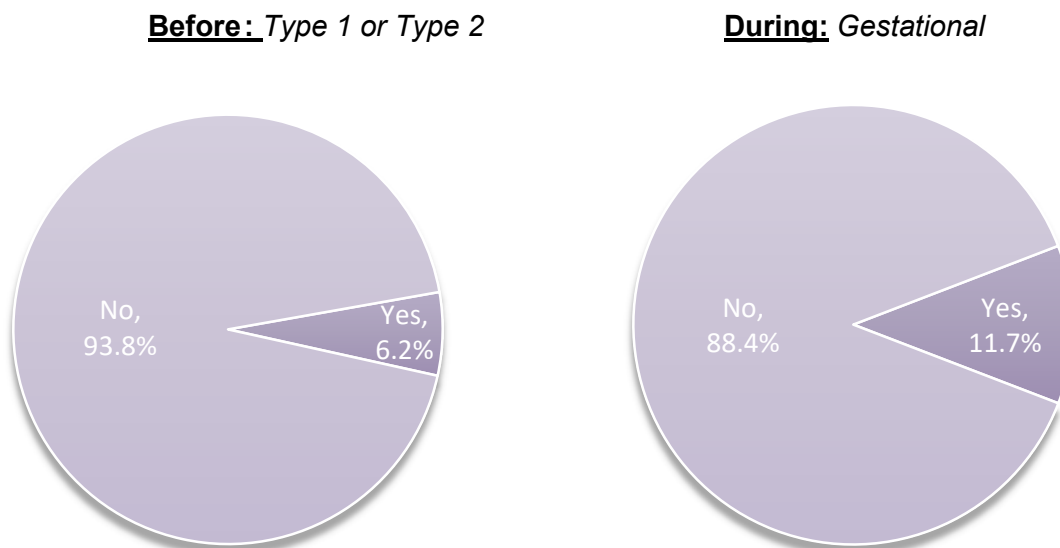
PRAMS asks mothers if they had type 1 or type 2 diabetes before pregnancy and if their doctor told them if they had gestational diabetes. Because gestational diabetes can have some harmful effects on the mother and baby, it is very important that the mother control her blood sugar levels during pregnancy.

Among mothers in West Virginia, 6.2% stated that they had type 1 or type 2 diabetes before pregnancy in 2018, an increase from 3% in 2017. However, 11.7% of mothers reported developing gestational diabetes during pregnancy in 2018, an increase from 9.2% in 2017 (**Figure 32**). Mothers were *more likely* to report gestational diabetes if they had some high school education, ages 25 and older or those with a household income of \$60,000 or more. (**Figure 33**).

Question 5: During the 3 months before you got pregnant with your new baby, did you have any of the following health conditions?

Question 28: During your most recent pregnancy, did you have any of the following health conditions?

Figure 32.

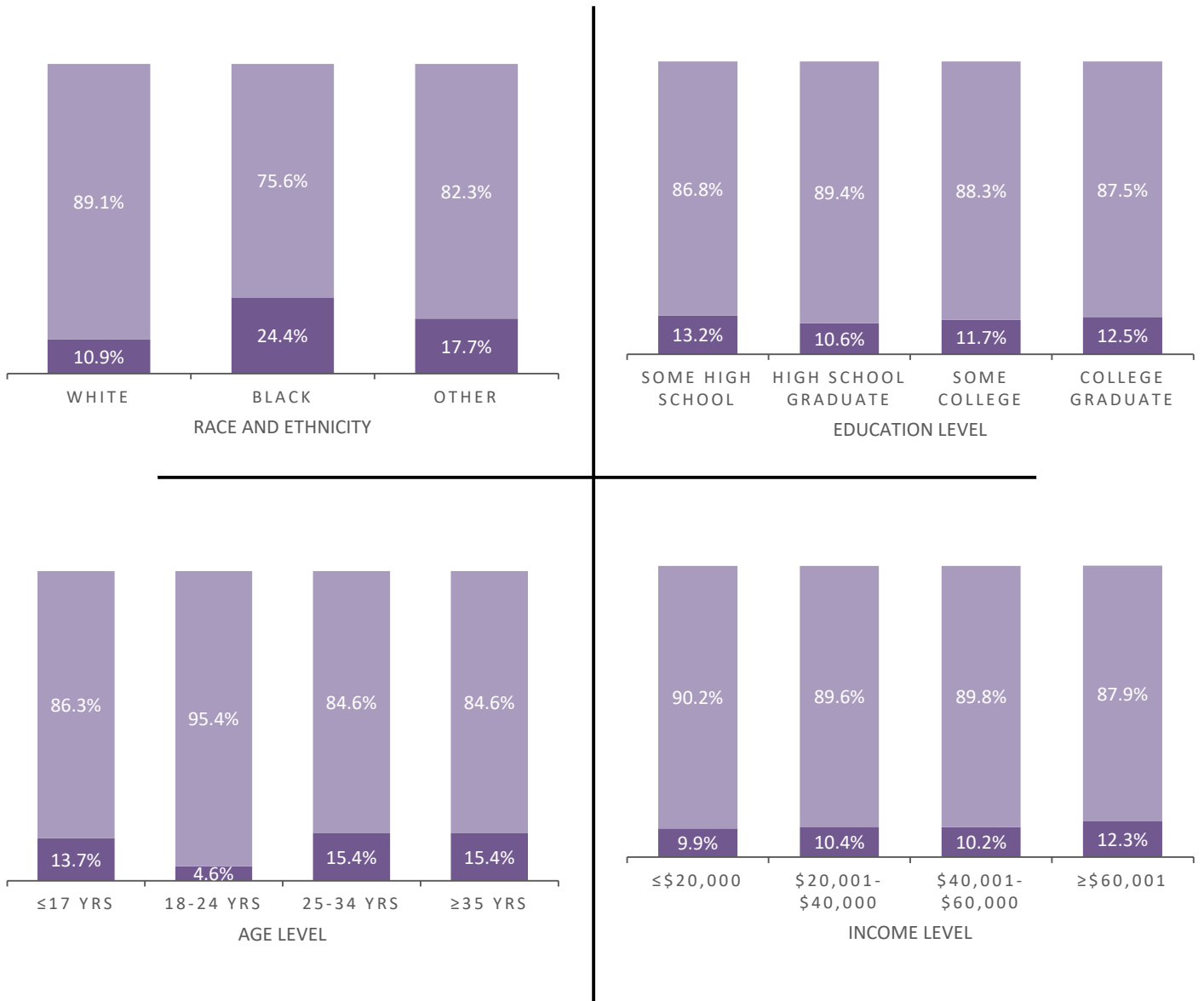


⁷ Centers for Disease Control and Prevention: <https://www.cdc.gov/brfss/brfssprevalence/index.html>

Figure 33.

Demographics of Mothers' Gestational Diabetes Status

■ Yes ■ No



Healthcare Coverage and Home Visitation



Source of Payment Before Pregnancy

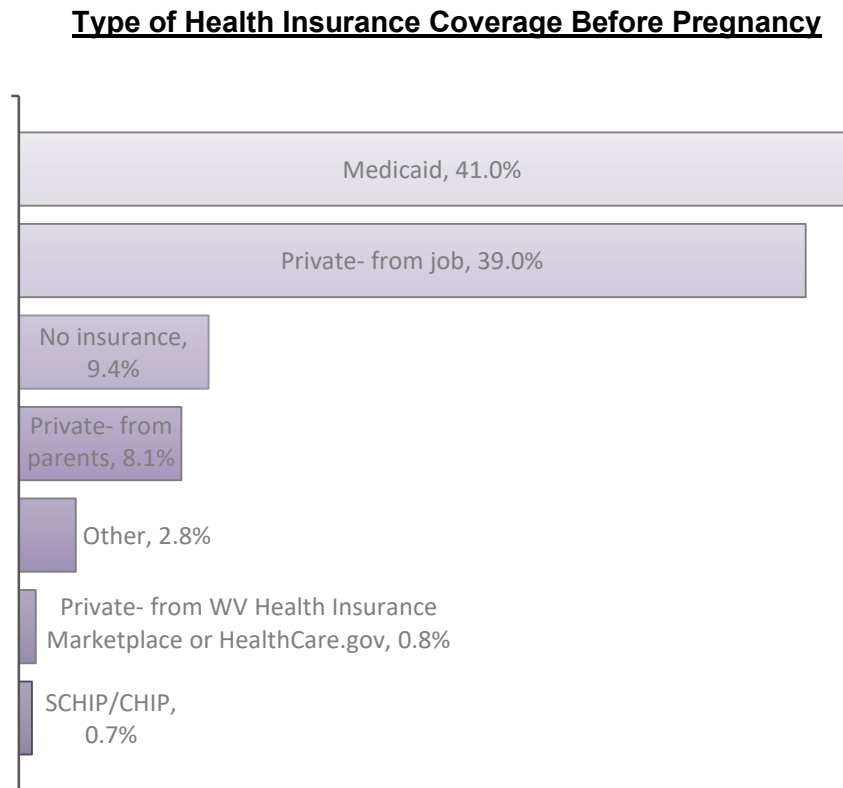
Access to healthcare is essential to be able to have the best health outcomes before, during and after pregnancy. However, because many mothers in West Virginia live in rural areas, access to health care may be limited. Having proper insurance coverage is an important factor in obtaining adequate health care.

PRAMS asks mothers what their health care coverage status was before, during, and after pregnancy. Mothers are able to select one or multiple types of health care coverage. This information will allow PRAMS to determine the number of mothers who do not have health care coverage, particularly if they qualified for Medicaid.

Among mothers in West Virginia in 2018, 41% had Medicaid, 39% had insurance through their own or their husband/partner's job and 9.4% had no insurance *before* pregnancy and increase from 6.4% in 2017. (Figure 34).

Question 12. During the *month before* you got pregnant with your new baby, what kind of health insurance did you have?

Figure 34.



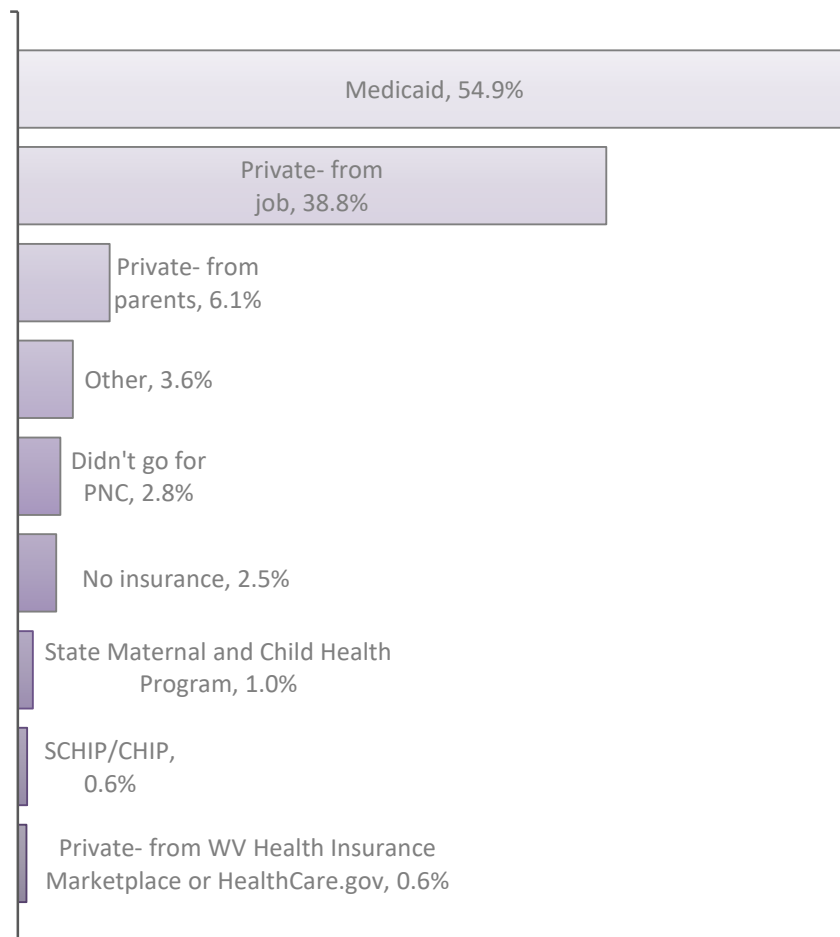
Source of Payment for Prenatal Care

Among mothers in West Virginia in 2018, 38.8% had insurance through their own or their husband's/partner's job, 54.9% had Medicaid and 2.5% had no insurance *during* pregnancy. (**Figure 35**).

Question 13. During your most recent pregnancy, what kind of health insurance did you have for your prenatal care?

Figure 35.

Type of Health Insurance Coverage During Pregnancy



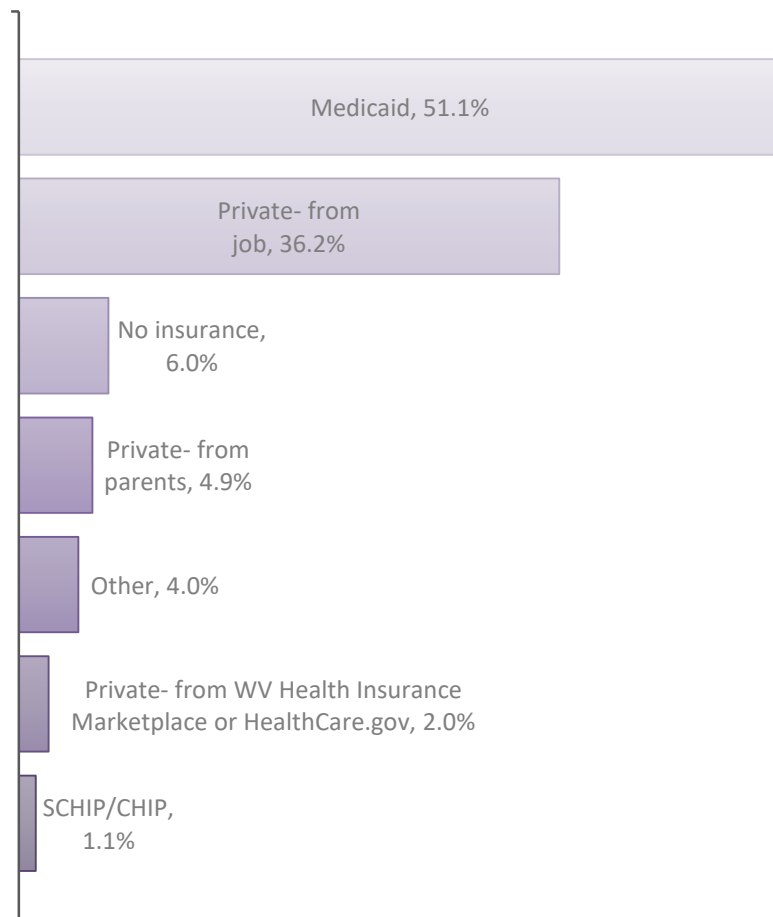
Source of Current Insurance Coverage

Among mothers in West Virginia in 2018, 36.2% had insurance through their own or their husband's/partner's job, 51.1% had Medicaid *after* pregnancy and 6% had no insurance. (Figure 36).

Question 14. What kind of health insurance do you have now?

Figure 36.

Type of Health Care Insurance Coverage After Pregnancy



Home Visiting: During and After Pregnancy

Home visitation services are available to eligible mothers during and after pregnancy through the Home Visitation Program in the Office of Maternal, Child and Family Health. More often, pregnancy and motherhood are new for many mothers. These services allow for mothers to receive help and guidance in preparing and taking care of themselves and their baby.

PRAMS asks mothers if a home visitor came to their home during or after their pregnancy. This data allows PRAMS to determine how well the program is being utilized and provides the opportunity to suggest modifications as needed.

Among mothers in West Virginia in 2018, only 8.1% received home visitation services during their pregnancy. The rate of home visitation service utilization increased slightly after pregnancy to 9.0% and decrease from 12.1% in 2017 (**Figure 37**). Mothers were more likely to report the utilization of home visitation service if they were 17 years of age or younger, those with some high school education or those who had an annual household income of \$20,000 or less per year, demographics remained the same after pregnancy (**Figure 38, 39**).

Question 27. During your most recent pregnancy, did a home visitor come to your home to help you prepare for your new baby?

Question 60. Since your new baby was born, has a home visitor come to your home to help you learn how to take care of yourself or your new baby?

Figure 37.

Mothers Who Received Home Visitation Services During and After Pregnancy

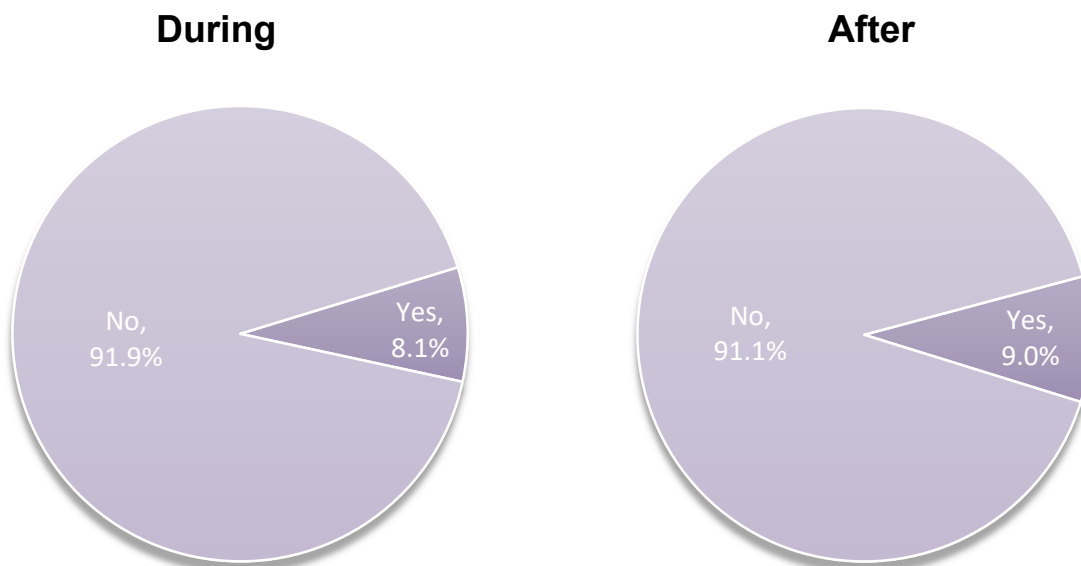


Figure 38.

Demographics of Mothers with a Home Visitation During Pregnancy



Figure 39.

Demographics of Mothers with a Home Visitation After Pregnancy



Maternal and Infant Health



Maternal Oral Health

Oral health is a key indicator of overall health and well-being for mothers and is particularly important prior to conception and during pregnancy. Maintaining good oral health during pregnancy is beneficial to the mother and the baby. Access to routine dental care during the perinatal period can reduce the risk of negative birth outcomes and promote good health for mother and baby after delivery.

PRAMS asks questions concerning oral health and hygiene before and during pregnancy. Mothers were first asked if they had ever had their teeth cleaned. Those that responded yes were then asked if they had their teeth cleaned during and after pregnancy. Moreover, mothers were asked if their doctor talked about visiting a dentist before pregnancy.

Among mothers in West Virginia, 50.4% had their teeth cleaned before pregnancy and 36% had their teeth cleaned during pregnancy in 2018 (**Figure 40**). In 2018, 49.6% of mothers stated that their doctors talked to them about oral health care prior to pregnancy and 88.2% of mothers knew the importance of taking care of their teeth and gums during pregnancy (**Figure 41, 42**). In 2018, 25.7% of mothers couldn't afford to go to a dentist and 19.1% couldn't find a dentist taking Medicaid patients (**Figure 43**).

Question 24. This question is about other care of your teeth during your most recent pregnancy. For each item, check **No if it is not true or does not apply to you or **Yes** if it is true.**

Question 26. Did any of the following things make it hard for you to go to a dentist or dental clinic during your most recent pregnancy

Figure 40.

Mothers Who had Their Teeth Cleaned Before and During Pregnancy

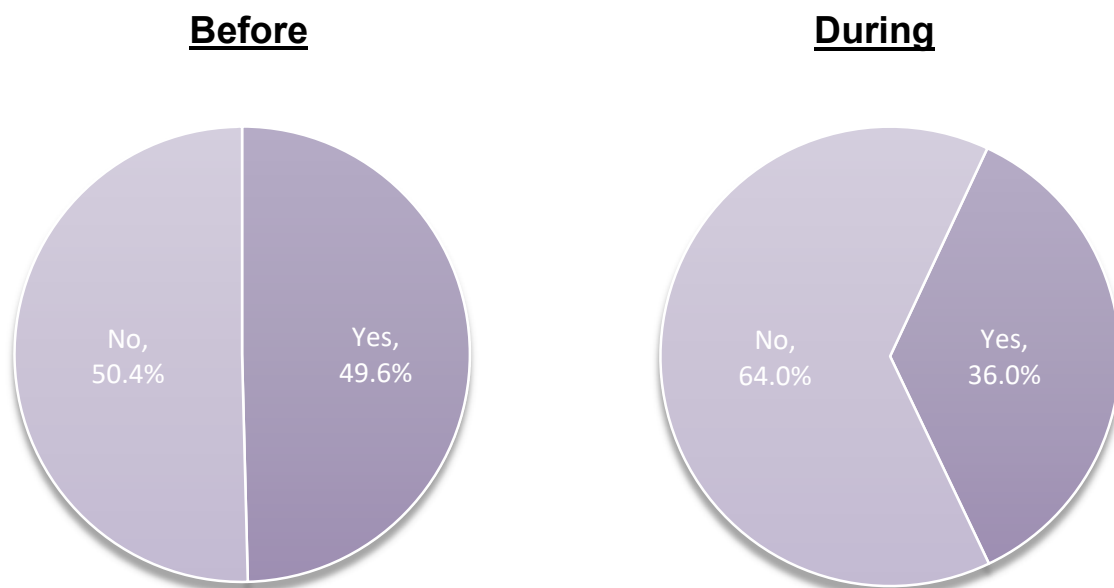


Figure 41.

Doctor or Health Care Worker (HCW) Talked About Oral Health Care Prior to Pregnancy

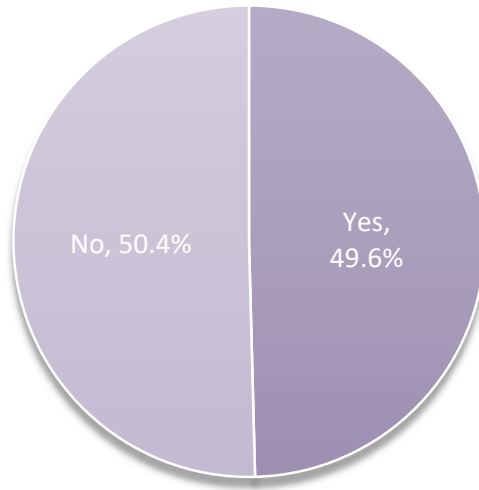


Figure 42.

Importance of Oral Health Knowledge During Pregnancy

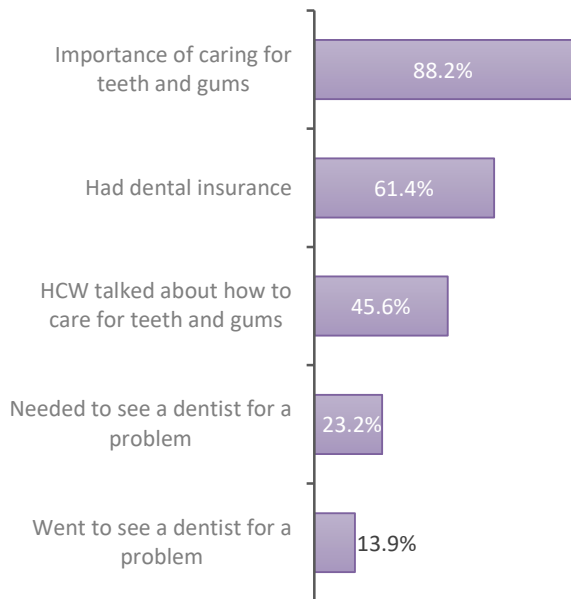
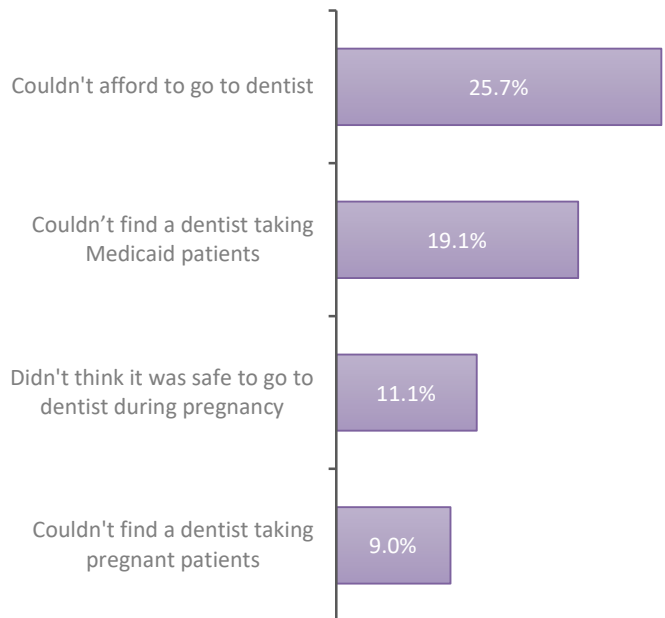


Figure 43.

Dental Barriers Encountered During Pregnancy



Postpartum Health and Care

Postpartum health is just as important to mothers as prenatal health. A woman's overall health during this time period can affect the risk of chronic diseases later in life, influence the health and outcome of future pregnancies, influence family functioning and affect the well-being of the infant and other family members.

Mothers should receive a postpartum checkup six weeks after delivery to identify and address any health concerns. During the checkup, providers perform a physical and gynecological exam. Additionally, providers can use the opportunity to discuss postpartum birth control, update vaccinations and screen for postpartum depression.

The postpartum period is quite stressful to mothers. Physical, emotional and lifestyle changes can trigger mood changes. It is not uncommon for mothers to experience "baby blues" mood swings and crying spells that fade quickly after childbirth. However, mothers may develop a more severe form of depression called postpartum depression. It is essential that mothers be screened for signs and symptoms of postpartum depression during the six-week checkup.

PRAMS asks mothers if they had a postpartum checkup after their baby was born. Mothers were also asked if certain topics were discussed by their doctor during their postpartum checkup. To identify potential postpartum depression symptoms, mothers were asked to rate their feelings of being down or depressed, hopelessness and slowed down on a scale of 1-5 (1 = never and 5 = always). Mothers who reported a 4 or higher in all three categories were identified as having possible postpartum depression symptoms.

In 2018, 72.7% of mothers reported their doctor discussed what to do if they were depressed during or after pregnancy (**Figure 44**). Around 87.8% reported their doctor discussed birth control methods to use after giving birth, while only 21.4% reported having an IUD placed (**Figure 45**). Roughly 88.1% of mothers reported having a postpartum checkup (**Figure 46**). Mothers were more likely to report attending their postpartum visit if they were a college graduate, were 25-34 years of age or had a household income of \$40,001-\$60,000 (**Figure 47**).

Question 19i. *During any of your prenatal visits, did a doctor, nurse or other health care worker talk with you about any of the things listed below?*

Question 64. *Since your new baby was born, have you had a postpartum checkup for yourself?*

Question 65. *During your postpartum checkup, did a doctor, nurse or other healthcare worker do any of the following things?*

Figure 44.

Percentage of Mothers that Discussed with Health Care Professionals What to do if Depressed During or After Pregnancy

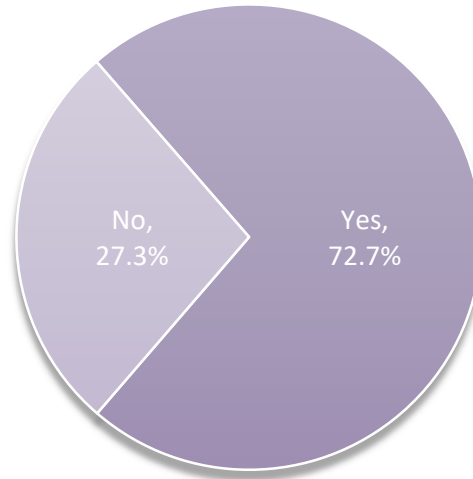


Figure 45.

Questions and Discussions During Postpartum Visit

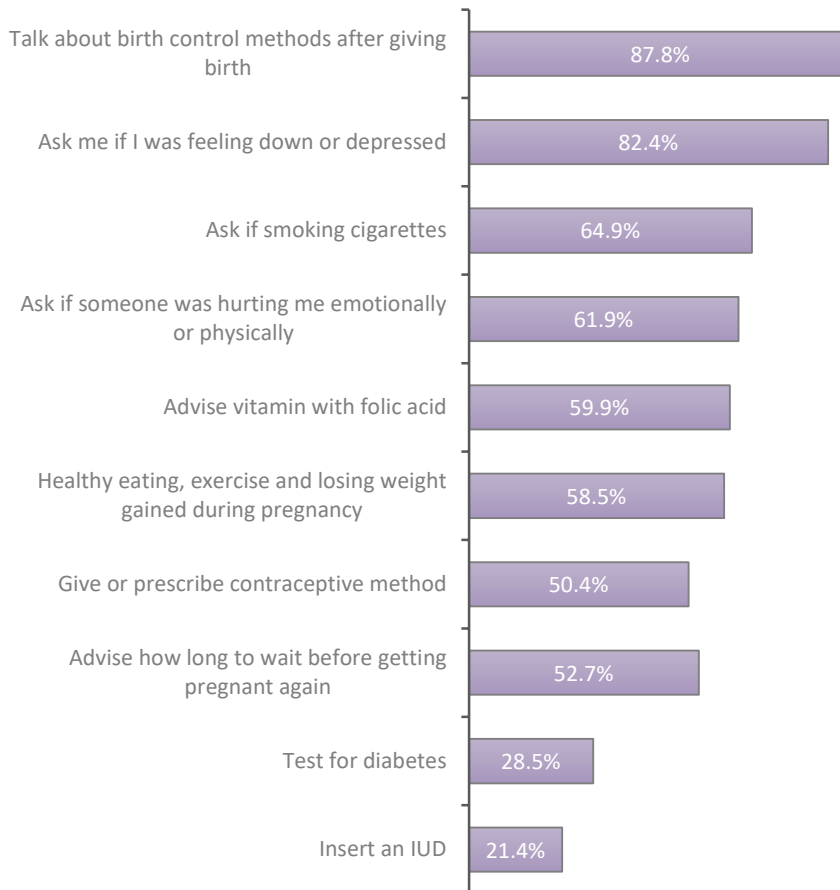


Figure 46.

Mothers Who Went for Postpartum Visit

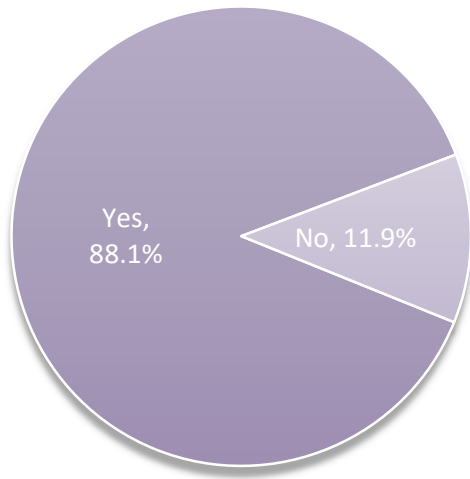
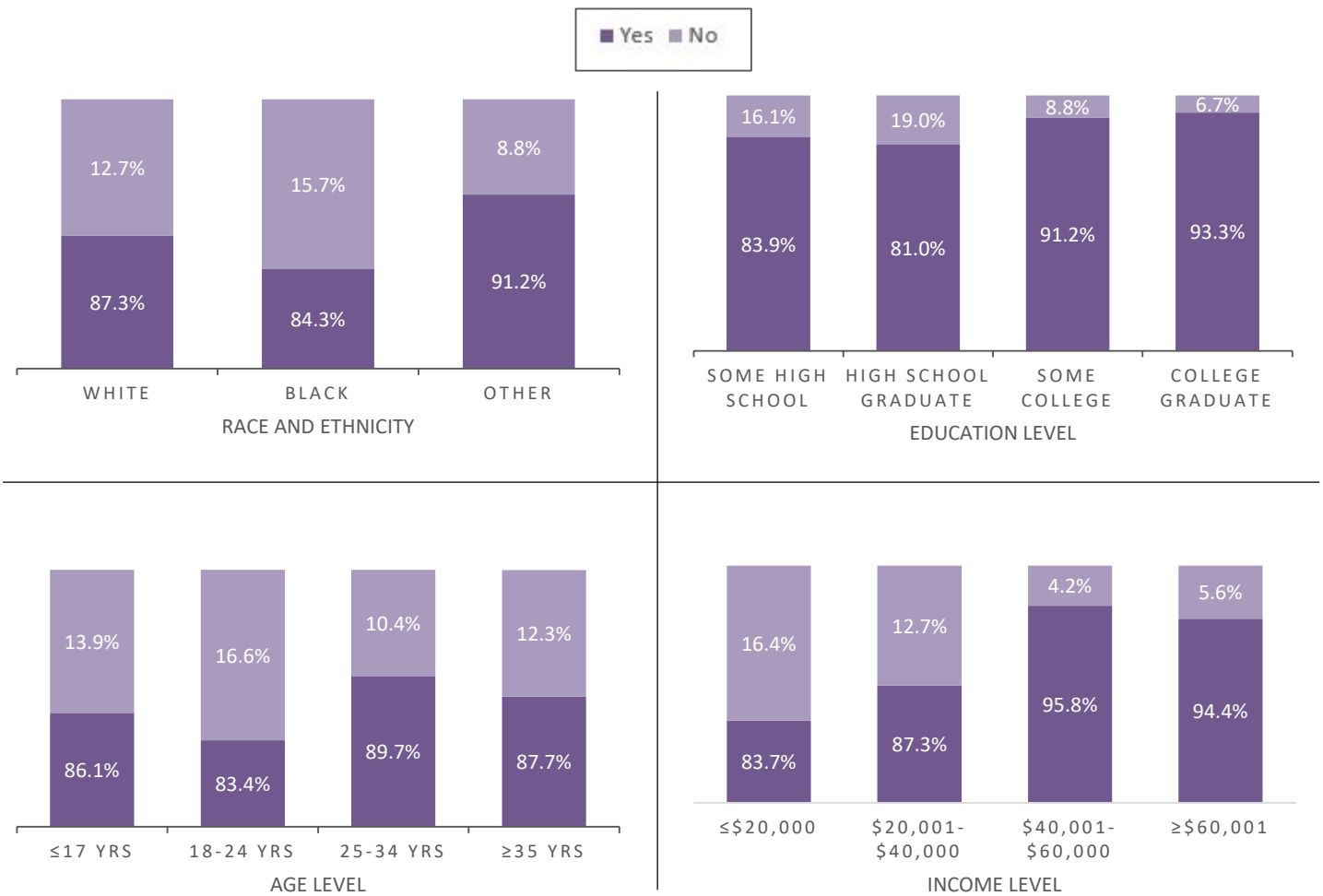


Figure 47.

Demographics of Mothers' Postpartum Checkup



Among mothers in West Virginia in 2018, 61.6% stated they had some sort of postpartum depression, with 11% of those stating they often or always felt depressed (**Figure 48**). In 2018, 12% of mothers stated they often or always had little interest or pleasure in doing things (**Figure 49**).

Question 66: Since your new baby was born, how often have you felt down, depressed, or hopeless?

Question 67: Since your new baby was born, how often have you had little interest or little pleasure in doing things?

Figure 48.

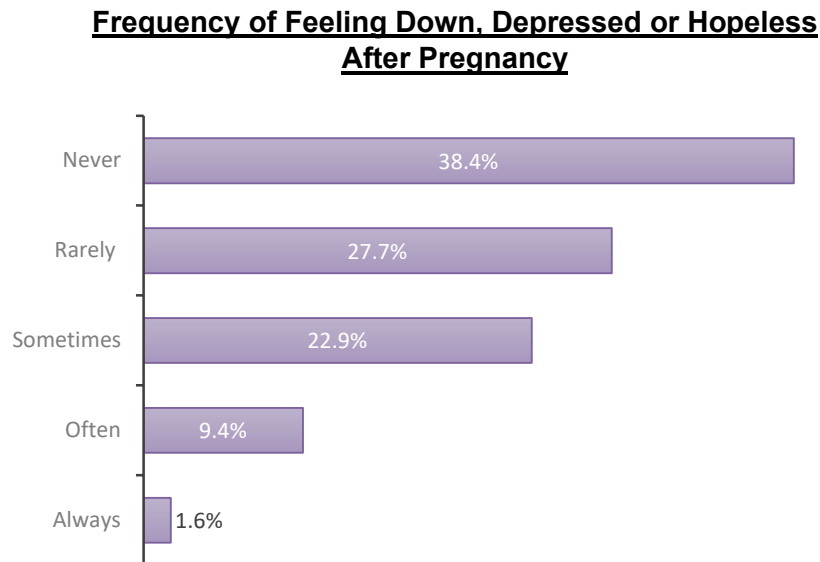
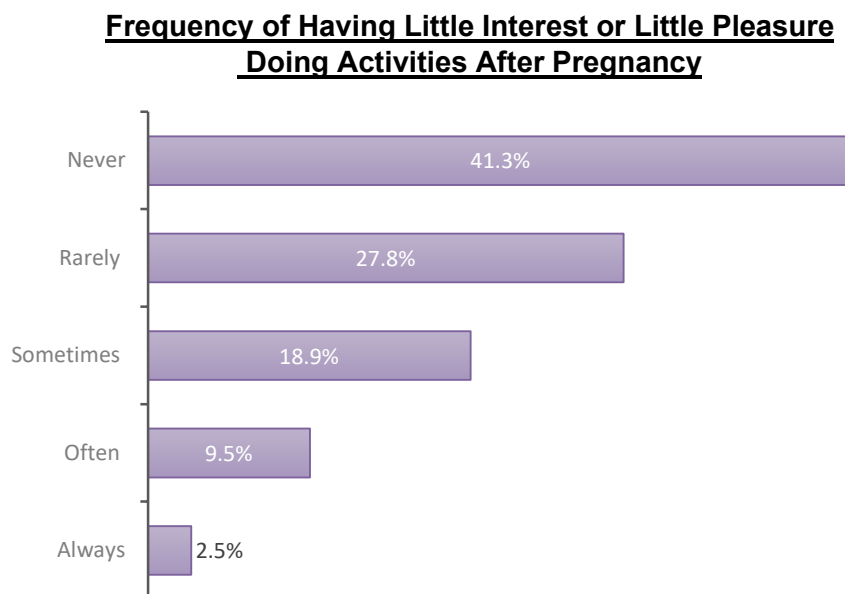


Figure 49.



Infant Safe Sleep: Position and Environment

Providing a safe sleep environment for infants is extremely important. According to the CDC, about 3,500 US infants die of sudden unexpected infant death (SUID)⁸. Although the exact cause of death of many of these babies is never determined, most occur while the infants are in an unsafe sleep environment. The American Academy of Pediatrics recommends the following for a safe sleep environment: infants should sleep on their backs and should never sleep with anyone else; the infant's bed should be an approved crib with a firm mattress and free of soft bedding or other soft items.

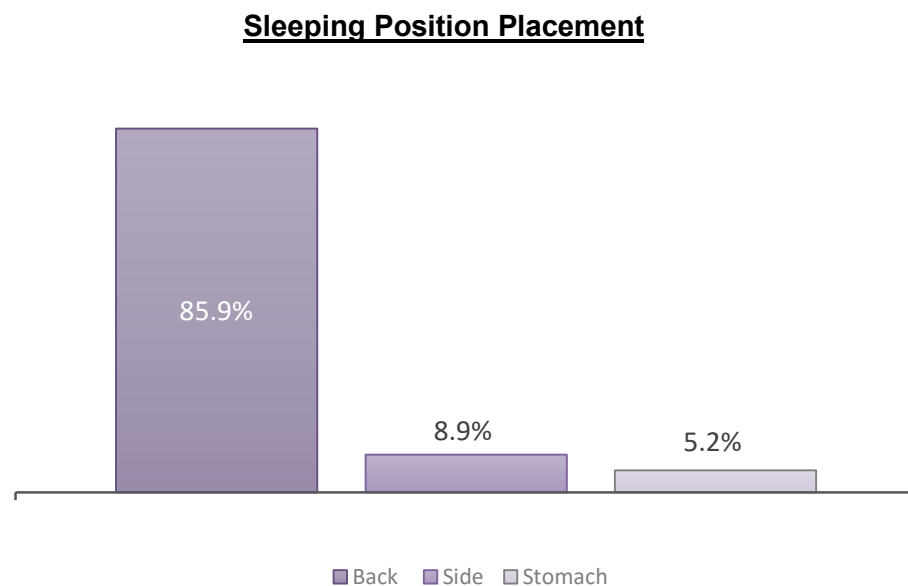
PRAMS asks mothers about their new baby's sleep position and co-sleeping habits. PRAMS wanted to know how infants were most often put to sleep (i.e., side, stomach, back, etc.) and how often the baby slept in the same bed with the mother or someone else. Furthermore, in 2012, PRAMS added additional questions about the sleep environment in the Phase 7 survey.

Among mothers in West Virginia, 85.9% placed their babies to sleep on their back, 8.9% on their sides, and 5.2% on their stomach in 2018 (**Figure 50**). Mothers were *more likely* to report not placing their infants to sleep on their backs if they had some high school education, a high school graduate or some college, 17 years of age or younger and a household income less than or equal to \$20,000 (**Figure 51**).

Question 54: In which *one* position do you most often lay your baby down to sleep now?

Question 58: Did a doctor, nurse, or other health care worker tell you any of the following things? For each thing, check **No** if they did not tell you or **Yes** if they did.

Figure 50.



⁸ CDC SUID: <http://www.cdc.gov/sids/aboutsuidandsids.htm>

Figure 51.

Demographics of Mothers' Infant Back Sleep Placement



About 95% of mothers received education on how to lay their baby down to sleep and 91% where to place their infant in 2018 (**Figure 52**). Surprisingly, more than 83% of mothers say their infant sleeps in the same room as them (**Figure 53**). However, 6.3% of mothers say that their baby *never* sleeps alone in his or her own crib or bed (**Figure 54**). More than 91% of mothers say their infant sleeps in a crib, bassinet or pack and play (**Figure 55**).

Question 55: In the past 2 weeks, how often has your new baby slept alone in his or her own crib or bed?

Question 56: When your new baby sleeps alone, is his or her crib or bed in the same room where you sleep?

Question 57: Listed below are some more things about how babies sleep. How did your new baby *usually* sleep in the past 2 weeks? For each item, check **No** if your baby did not *usually* sleep like this or **Yes** if he or she did.

Figure 52.

Sleeping Environment and Placement Discussions

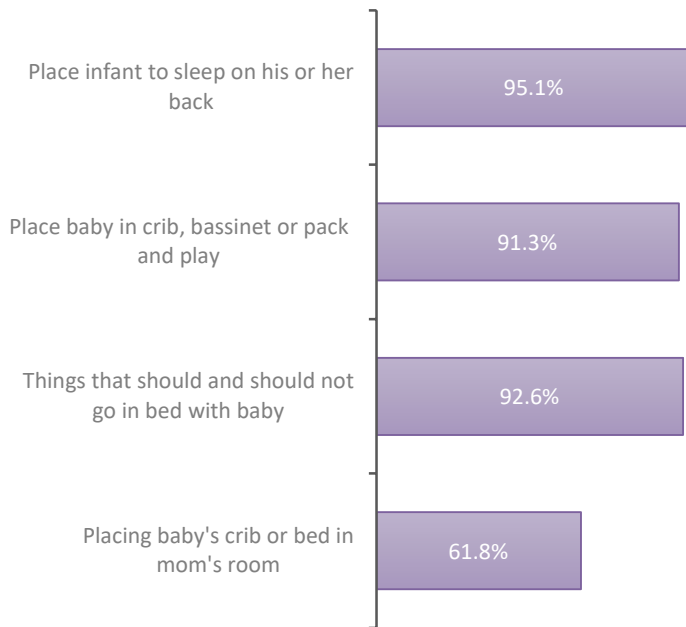


Figure 53.

Percentage Infant Sleeps in Same Room as Mom

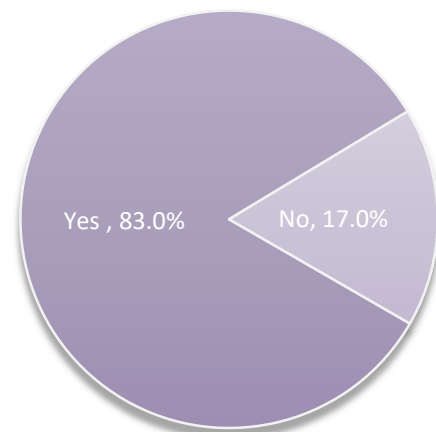


Figure 54.

Frequency of the Amount of Time Infant Sleeps Alone in His or Her Own Crib or Bed

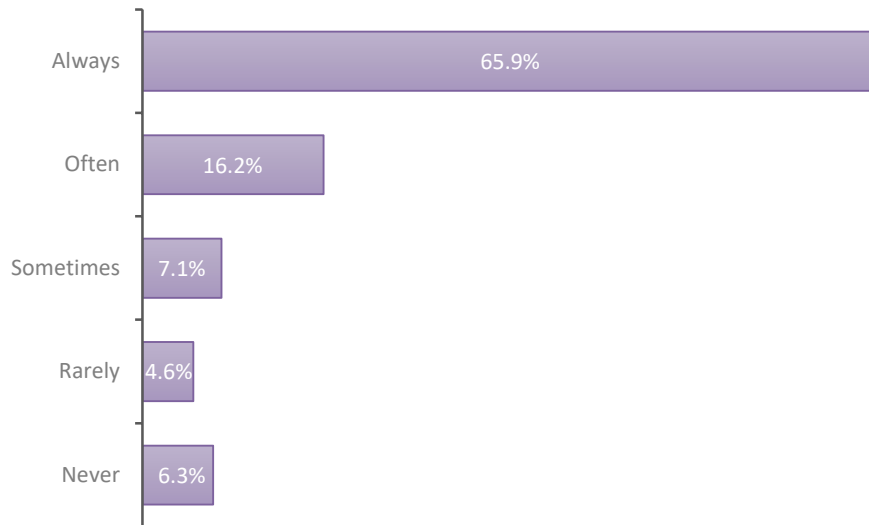
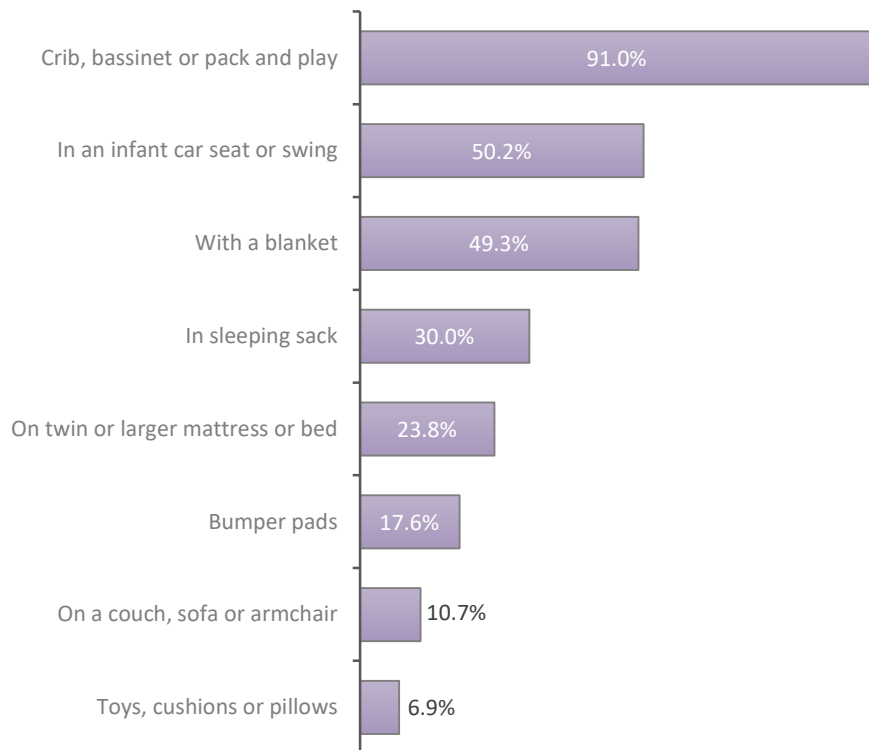


Figure 55.

Infant's Sleep Environment



Breastfeeding

The benefits of breastfeeding are numerous for both mother and baby. Human breast milk provides the ideal nutrition for infants and is more easily digested than formula. It also contains antibodies and other substances that are needed for healthy immune system and can reduce an infant's risk of developing other illness later during childhood.

PRAMS asks mothers about breastfeeding initiation and duration. The PRAMS survey asked mothers if they had ever breastfed or pumped breast milk to feed their babies after delivery. Mothers who indicated they did not breastfeed, or pump breast milk were further asked why they did not do so.

According to PRAMS data, 85.4% of West Virginia mothers reported receiving breastfeeding education during prenatal care in 2018 (**Figure 56**). However, only 72.4% of mothers reported they had at least tried breastfeeding or pumped breast milk for their babies (**Figure 57**). Mothers were more likely to report never trying breastfeeding were mothers with a high school diploma, mothers 17 years of age or younger had a household income of less than or equal to \$20,000 (**Figure 58**).

Question 19. During any of your prenatal care visits, did a doctor, nurse or other health care worker talk with you about any of the things listed below? [b. breastfeeding my baby]

Question 49. Did you ever breastfeed or pump breast milk to feed your new baby, even for a short period of time?

Figure 56.

Mothers Who Discussed Breastfeeding with a Health Care Professional Before Pregnancy

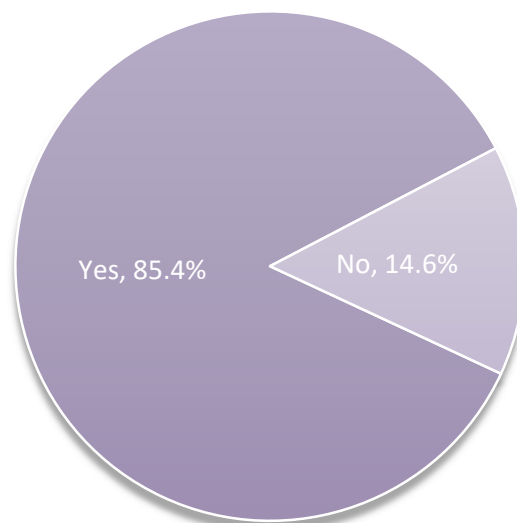


Figure 57.

Mothers Who Ever Breastfed

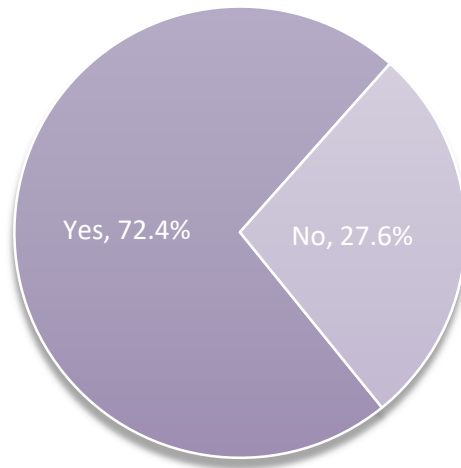
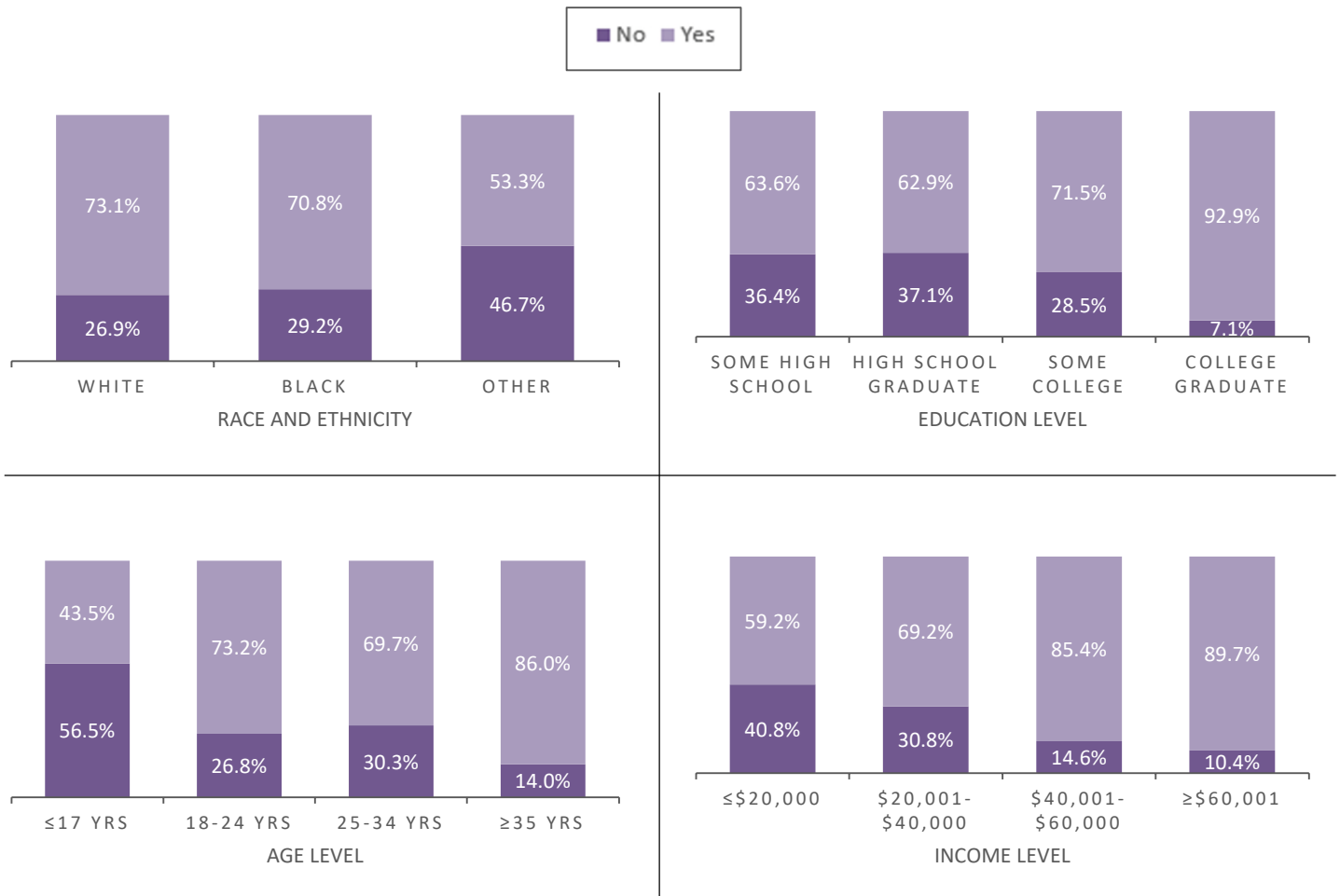


Figure 58.

Demographics of Mothers Who Ever Breastfed



About 49.7% of mothers in West Virginia reported exclusively breastfeeding their baby at the time they took the survey (generally between 2 to 4 months after delivery) in 2018 (**Figure 59**). However, 61.7% of the mothers that had stopped breastfeeding by the time they took the survey had only breastfed for less than 1 week, while only 17.8% had breastfed 8 weeks or greater, a decrease from 18.3% in 2017 (**Figure 60**).

Question 50: Are you currently breastfeeding or feeding pumped milk to your new baby?

Question 51: How many weeks of months did you breastfeed or feed pumped milk to your baby?

Figure 59.

Mothers Who Are Still Breastfeeding at Time of Survey

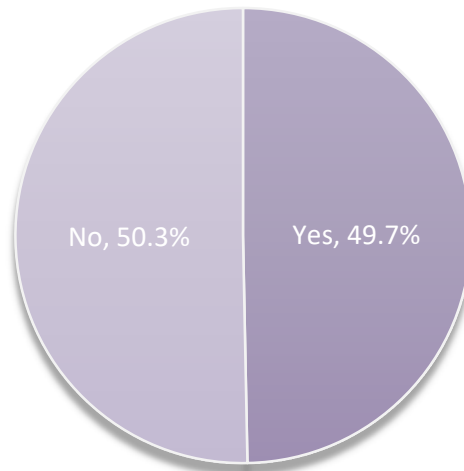


Figure 60.

Breastfeeding Length of Mothers Who Had Stopped Breastfeeding at Time of Survey

