



PREGNANCY RISK ASSESSMENT MONITORING SYSTEM

A survey for healthier babies in New Jersey

## 2016 Annual Chart Book

### (PRAMS Phase 8 Survey Questionnaire)

The Annual [Chart Book](#) is intended to provide information from the Pregnancy Risk Assessment Monitoring System (PRAMS). NJ-PRAMS is a joint project of the New Jersey Department of Health and the Centers for Disease Control and Prevention (CDC). One out of every 50 mothers are sampled each month, when newborns are 2-6 months old. Survey data is collected on maternal attitude and experiences before, during, and shortly after pregnancy. Information from PRAMS is used to help plan better health programs for New Jersey mothers and infants – such as improving access to high quality prenatal care, reducing smoking, and encouraging breastfeeding.

The PRAMS sample design oversamples smokers and minorities to ensure adequate representation in these groups. Survey data is weighted to give representative estimates of proportions in specific categories and of actual persons across the NJ Birth Certificate database. Approximately 1,500 mothers have been interviewed annually between 2003-2016 with a 70% response rate. In 2016, 45% of the PRAMS sample was White, non-Hispanic (NH), while 30.9% were Hispanic, 12.7% were Black, NH and 11.4% were Asian, NH. More than half (54.1%) of the mothers responding were at least 30 years of age and 44.7% were 18-29 years of age. A greater proportion of the mothers were married (66.9%) and had some college education (65.5%). The reported annual household income distribution was \$40,000 or less (41.9%), \$40,001-\$73,000 (16.5%) and \$73,001 or more (41.6%). Of the mothers who responded to the 2016 NJ PRAMS survey, 34.6% were Women, Infants, and Children (WIC) participants, and almost 30% used Medicaid during pregnancy.

New Jersey joined PRAMS during the Phase 4 questionnaire in 2002; since that time there have been four additional phases of questionnaires. The 2016 Chart Book includes data from the Phase 8 questionnaire which is available both on the [New Jersey PRAMS website](#) as well as the [CDC PRAMS website](#).

The [tables](#) in the Chart Book present data that is relevant for program planning and are part of New Jersey's high priority areas. Data is presented in trend tables from 2003-2016 and by sociodemographic variables for 2016. Topics of interest include:

- Health behaviors (e.g. vaccination, BMI, dental care and HIV testing)
- Chronic disease (e.g. diabetes, high blood pressure, depression, asthma and family history of breast and ovarian cancer)
- Access to care (e.g. insurance status, receipt of prenatal care, postpartum and well-baby checkups and preconception care)



## 2016 New Jersey PRAMS Chart Book

- Pregnancy intention and birth control
- Breastfeeding
- Tobacco, alcohol, drugs and medications
- Infant safe sleep
- Racial perception
- Zika virus
- Labor, delivery and childbirth education
- Home visiting

Note: The question numbers listed in the tables next to the topics of interest refer to the corresponding question number in the PRAMS Phase 8 questionnaire.

NJ PRAMS data can also be accessed through the NJ State Health Assessment Data (NJ SHAD) System:  
[www26.state.nj.us/doh-shad/query/selection/prams/PRAMSSelection.html](http://www26.state.nj.us/doh-shad/query/selection/prams/PRAMSSelection.html).



## Overview

### Health Behaviors

#### ***Body Mass Index (BMI)***

- The prevalence of overweight mothers (BMI between 25 and 29.9 kg/m<sup>2</sup>) has increased from 21.4% in 2003 to 24% in 2016.
- The proportion of obese mothers (BMI  $\geq$  30 kg/m<sup>2</sup>) increased from 13.3% in 2003 to 19.3% in 2016.

#### ***Flu Vaccination***

- The proportion of women who reported getting a flu shot during pregnancy increased from 21.7% in 2010 to 40.1% in 2016.

#### ***Dental Care***

- The proportion of women that reported having their teeth cleaned by a dentist or dental hygienist during their pregnancy declined from 49.2% in 2012 to 44.3% in 2016.
- In 2016, the prevalence of mothers that reported getting their teeth cleaned during pregnancy was highest for White, NH (56.2%), mothers 30+ years of age (49.6%), mothers with some college education or more (49.6%) and mothers with an income higher than \$73,000 (56.4%).

#### ***HIV Testing (2016 data only)***

- In 2016, 20% of mothers reported receiving an HIV test in the 12 months before getting pregnant.
- The prevalence of pre-pregnancy HIV testing was highest for Black, NH (30.2%), those with late or no prenatal care (23.7%), income less than or equal to \$40,000 (22.9%) and Medicaid prior to pregnancy (22.9%).

### **Chronic Disease (2016 Data Only)**

#### ***Diabetes***

- In 2016, 4.9% of mothers reported having Type 1 or Type 2 diabetes during the 3 months prior to pregnancy, 10.3% of mothers reported having gestational diabetes during pregnancy and 38.7% of mothers reported having a family history of diabetes.



### ***High Blood Pressure***

- In 2016, 5.7% of mothers reported having high blood pressure during the 3 months prior to pregnancy, 10.4% of mothers reported having high blood pressure during pregnancy and 52.4% of mothers reported having a family history of high blood pressure.

### ***Depression***

- In 2016, 8.6% of mothers reported having depression during the 3 months prior to pregnancy and 6.4% of mothers reported having depression during pregnancy.

## **Access to Care**

### ***Insurance Status***

- Reported use of Medicaid prior to pregnancy was 19.2% in 2016. There has been a steady increasing trend in the use of Medicaid from 2003 (10.8%).
- The proportion of mothers who reported using Medicaid for PNC increased slightly from 28.7% in 2015 to 29.5% in 2016.
- There has been a decrease in the proportion of mothers who reported no insurance for PNC from 7.2% in 2003 to 6.6% in 2016.
- In 2016, women who had Medicaid for prenatal care were more likely to receive late or no prenatal care (29.3%) vs. women with private insurance (12.9%).

### ***Receipt of Prenatal Care***

- The proportion of women who reported receiving late or no PNC increased from 19.2% in 2003 to 20.0% in 2016.
- In 2016, 8.0% of mothers reported not being able to get an appointment as a barrier to prenatal care, while 13.4% identified not knowing about their pregnancy as a barrier. Women also identified not having enough money/insurance (8.9%) and that their doctor/health plan would not start care as early as they wanted (6.5%) as barriers to prenatal care.
- Among Black, NH, mothers, 33.1% reported receiving late or no PNC while 25.2% of Hispanic mothers, 15.4% of Asian, NH, mothers, and 14.6% of White, NH, mothers reported receiving late or no PNC in 2016.
- In 2016, 27.8% of WIC participants received late or no PNC.

### ***Postpartum Checkup***

- In 2016, 88.5% of mothers reported attending a postpartum checkup for themselves. Mothers who were less likely to attend a postpartum checkup were Hispanic (81.2%), received late or no prenatal care (80.6%), were 18-29 years of age (85.9%), had less than a high school education (73.7%), participated in WIC (82.7%) and received Medicaid for prenatal care (85.3%).



## Pregnancy Intention and Birth Control

### ***Pregnancy Intention***

- In 2016, the proportion of mothers who reported intended pregnancies was 74.6%, while 25.4% reported unintended pregnancies.
- Among mothers who reported having Medicaid for PNC, the frequency of unintended pregnancies was 40.4%. Mothers who reported using private insurance for PNC had an unintended pregnancy rate of 16.6%.
- More than three times as many Black, NH, mothers reported unintended pregnancies as White, NH mothers (45.9% and 13.8%, respectively).
- Unintended pregnancies were more likely to be reported by mothers who had a high school diploma (40.3%), were unmarried (48.8%), had an annual household income of \$40,000 or less (44.0%), had Medicaid prior to pregnancy (41.9%), and were 18-29 years of age (37.1%).
- In 2016, 38.5% of WIC participants reported their pregnancies were unintended.

### ***Birth Control***

- In 2016, more than half (56.8%) of mothers who were not trying to get pregnant at conception reported not using birth control prior to pregnancy.
- Almost three-quarters (71.3%) of mothers reported using some form of birth control after delivery.
- Most common reasons for not using birth control among women who were not trying to get pregnant at conception were:
  - I didn't mind getting pregnant - 57.9%
  - I thought I couldn't get pregnant at the time - 28.6%
  - My partner didn't want to use anything - 19.8%
  - I had side effects from the birth control I was using - 11.9%
  - I forgot to use a birth control method - 11.0%
- Most common reasons for not using birth control postpartum were:
  - I don't want to use birth control - 33.8%
  - I am worried about the side effects from birth control - 28.7%
  - I am not having sex - 24.7%
  - I want to get pregnant - 15.6%
  - My husband or partner doesn't want to use anything - 11.3%
- The types of birth control reported postpartum were:
  - Condoms - 38.4%
  - Birth control pills - 23.7%
  - Withdrawal - 17.9%



- IUD - 11.6%
- Not having sex - 9.8%
- Tubes tied or blocked - 8.1%
- Shots or injections - 7.3%
- Natural family planning - 4.8%
- Contraceptive patch - 2.4%
- Vasectomy - 2.2%
- Contraceptive implant in arm - 1.5%

### **Breastfeeding**

- Mothers who reported initiating breastfeeding increased from 73.2% in 2003 to 86.8% in 2016.
- Breastfeeding initiation rates were higher among Asian, NH mothers (92.5.3%), mothers who had some college education or more (90.8%), and mothers who were at least 30 years of age (87.7%).
- Breastfeeding initiation rates were lower among Black, NH mothers (83.7%), mothers who had less than a high school education (77.3%) and mothers who had Medicaid for prenatal care (82.1%).
- In 2016, mothers participating in WIC reported initiating breastfeeding at a rate of 85.1%.
- Mothers reported the following experiences in the hospital where their new baby was born:
  - Hospital staff gave me information about breastfeeding - 82.5%
  - I breastfed my baby in the hospital - 81.5%
  - Hospital staff told me to breastfeed whenever my baby wanted - 75.4%
  - Hospital staff helped me learn how to breastfeed - 75.3%
  - My baby stayed in the same room with me at the hospital - 73.4%
  - My baby was placed in skin-to-skin contact within the first hour of life - 73.3%
  - Hospital gave me a telephone number to call for help with breastfeeding - 71.4%
  - I breastfed in the first hour after my baby was born - 63.8%
  - Hospital staff gave my baby a pacifier - 45.2%
  - Hospital gave me a gift pack with formula - 43.9%
  - My baby was fed only breast milk at the hospital - 43.4%
  - Hospital gave me a breast pump to use - 38.2%

### **Tobacco, Alcohol, Drug and Medication Use**

#### ***Tobacco Use***

- The proportion of mothers who smoked through pregnancy decreased from 7.8% in 2003 to 4.4% in 2016.



- The proportion of mothers who quit smoking during pregnancy increased from 7.4% in 2015 to 9.5% in 2016.
- The rate of relapse in postpartum mothers decreased from 43.1% in 2015 to 34.5% in 2016.
- Smoking relapse rates were higher for Black, NH mothers (48.5%) followed by Hispanic mothers (46.8%), mothers with unintended pregnancies (43.6%), mothers 18-29 years of age (44.0%), WIC participants (58.2%), and mothers with Medicaid for prenatal care (63.5%).
- In 2016, 5.0% of mothers reported e-cigarette use before pregnancy.
- A higher proportion of mothers who used e-cigarettes before pregnancy were White, NH (6.6%) followed by Black, NH (6.0%), had an unintended pregnancy (9.4%), were 18-29 years of age (7.3%), had a high school diploma (10.8%), and had Medicaid for prenatal care (7.2%).

### ***Alcohol Use***

- Alcohol use before pregnancy increased from 46.4% in 2003 to 51.1% in 2016.
- Drinking alcohol during pregnancy increased from 6.8% in 2003 to 8.9% in 2016.
- Binge drinking three months prior to pregnancy decreased from 46.2% in 2003 to 29.2% in 2016.
- In 2016, alcohol use during pregnancy was higher in Hispanic mothers (9.7%) followed by White, NH mothers (9.2%) and Black, NH mothers (8.4%), mothers at least 30 years of age (10.8%), mothers with some college education or more (10.6%), mothers with private insurance prior to pregnancy (9.8%) and for prenatal care (10.1%), and mothers with a household income greater than \$73,000 (11.6%).
- A higher proportion of mothers who reported binge drinking before pregnancy were Hispanic (36.4%), had an unintended pregnancy (36.0%), had a high school diploma (36.3%), used Medicaid for prenatal care (30.2%), and participated in WIC (35.2%).

### ***Drug and Medication Use***

- In 2016, mothers reported that during a discussion on how to prepare for pregnancy a doctor, nurse or other healthcare worker talked with them about the safety of using prescription or over-the-counter medicines during pregnancy (56.8%) and how using illegal drugs during pregnancy can affect a baby (51.2%).
- Mothers reported that during any of their prenatal care visits a doctor, nurse or healthcare worker asked if they were taking any prescription medications (92.3%) and if they were using drugs such as marijuana, cocaine, crack or meth (74.4%).

## **Infant Safe Sleep**

### ***Newborn Sleep Position, Bed-Sharing Patterns, and Sleep Environment***

- Routine back (supine) sleep, which is recommended as the best practice to prevent SIDS, increased from 57.8% in 2003 to 69.4% in 2016.



- Mothers who reported using Medicaid prior to pregnancy (50.1%) and were Black, NH (52.5%) or Hispanic (60.2%) were less likely to put their newborn infants down to sleep on their backs in 2016.
- In 2016, Asian, NH (54.2%) and Black, NH (62.4%) mothers were less likely to report that their baby often sleeps alone in their own crib or bed.
- Almost 72% of mothers reported that when their new baby sleeps alone, his or her crib is in the same room where the mother sleeps.
- Mothers reported the following about how their baby usually slept in the past two weeks:
  - In a crib, bassinet, or pack and play - 87.3%
  - In an infant car seat or swing - 58.8%
  - With a blanket - 52.0%
  - On a twin or larger mattress or bed - 34.4%
  - In a sleeping sack or wearable blanket - 32.8%
  - With crib bumper pads (mesh or non-mesh) - 21.7%
  - With toys, cushions, or pillows, including nursing pillows - 12.0%
  - On a couch, sofa or armchair - 9.3%

### Racial Perception

- In 2016, 7.1% of mothers reported feeling emotionally upset (for example, angry, sad, or frustrated) as a result of how they were treated based on their race.
- Mothers more likely to report feeling emotionally upset as a result of treatment based on race were Hispanic (10.9%), Asian, NH (9.2%) and Black, NH (9.0%), had less than a high school education (10.9%), were on Medicaid prior to pregnancy and during pregnancy (9.9% and 9.1% respectively) and participated in WIC (10.1%).

### Zika Virus

- In 2016, 63.2% of mothers reported being very or somewhat worried about getting infected with Zika virus, 29.2% were not worried at all and 7.6% never heard of Zika virus.
- More than half (53.6%) of mothers reported talking with a doctor, nurse or other health care worker about Zika virus during their pregnancy, 91.6% were aware of recommendations that pregnant women should avoid travel to areas with Zika virus, and 12.4% received a blood test for Zika virus.
- Almost 4% of mothers reported traveling to a CDC-defined risky area, and among those mothers 76.0% reported doing things to avoid mosquito bites while traveling.
- A higher proportion of mothers that reported traveling to a CDC-defined risky area were: Asian, NH (7.3%) followed by Hispanic (4.5%), had some college education or more (4.6%), and had an annual household income greater than \$73,000 (5.4%).





- Approximately 6% of mothers reported that their husband or male partner traveled to a risky area during their pregnancy, and 71.2% of those mothers reported never using condoms during sex.
- The most common reasons for not using condoms during pregnancy were:
  - I didn't know you can get Zika virus from having sex - 84.5%
  - My husband or male partner didn't want to use condoms - 76.5%
  - I didn't want to use condoms - 73.5%

### **Labor, Delivery and Childbirth Education**

- Childbirth education among first-time mothers declined from 53.1% in 2003 to 34.5% in 2016.
- First-time mothers that were less likely to report taking a class or classes to prepare for childbirth were Black, NH (18.5%) and Hispanic (22.1%), 18-29 years of age (25.1%), had a high school diploma (18.4%), had Medicaid for prenatal care (12.4%), participated in WIC (20.5%) and had an unintended pregnancy (22.4%).
- The percent of mothers that reported a c-section delivery decreased from 39.2% in 2009 to 35.2% in 2016.
- A higher proportion of mothers that reported a c-section delivery were: Asian, NH (43.3%) followed by White, NH (36.2%), at least 30 years of age (42.0%), had private insurance for prenatal care (37.6%) and delivery (38.0%) and had a preference for c-section delivery at conception (94.1%).

### **Home Visitation Summary**

New Jersey provides several home visitation programs to provide helpful information and support to pregnant women, new mothers, or other caregivers in the comfort and privacy of their homes. There are 3 core home visiting models – Healthy Families, Nurse Family Partnership, and Parents as Teachers. While some home visiting programs are intended for mothers in the prenatal stage, others target new mothers, and all programs are primarily geared towards low-income and high-risk groups. Between 2012-2016, NJ PRAMS was able to provide further insight into the effectiveness of these programs by asking mothers who responded to the survey to report whether they had home visits. The following section summarizes the knowledge and behavior of mothers who had home visits when compared to mothers who did not.

#### **2016**

- In 2016, 13.4% of mothers reported having a home visitor come to their home during pregnancy to help prepare for their new baby or after pregnancy to help them learn how to take care of their new baby.



## 2016 New Jersey PRAMS Chart Book

- Mothers who reported having a home visitor were primarily Black, NH (15.9%) and Hispanic (13.6%), 18-29 years of age (14.6%), had less than a high school education (18.9%), participated in WIC (17.7%) and had Medicaid/FamilyCare prior to pregnancy (19.7%).
- Mothers who had a home visitor during or after pregnancy reported that a doctor, nurse, or other health care worker talked to them about:
  - Placing their baby on his or her back to sleep - 91.0%
  - What things should and should not go in bed with their baby - 88.3%
  - Placing their baby to sleep in a crib, bassinet, or pack and play - 84.9%
  - Placing their baby's crib or bed in the mother's room - 59.2%
- About 65% of mothers who had a home visitor reported that their baby most often sleeps on his or her back, and 72.1% reported that their baby often sleeps alone in his or her own crib or bed.
- Mothers that had a home visitor reported that their new baby usually sleeps:
  - In a crib, bassinet, or pack and play - 87.0%
  - In an infant car seat or swing - 63.1%
  - With a blanket - 49.3%
  - On a twin or larger mattress or bed - 48.3%
  - In a sleeping sack or wearable blanket - 34.0%
  - With crib bumper pads (mesh or non-mesh) - 19.6%
  - With toys, cushions, or pillows (including nursing pillows) - 16.3%
  - On a couch, sofa or armchair - 10.4%

### **2012-2015**

- Approximately 5% of mothers reported having home visitors come to their home during pregnancy to help them prepare for their new baby between 2012-2015.
- Mothers who reported having a home visitor help them prepare for their new baby were primarily Black, NH (7.9%) and Hispanic (6.8%), between 18-29 years old (5.9%), had less than a high school education (10.7%), and had an annual household income less than \$37,000 (6.8%).
- About 8% of mothers reported having home visitors after the baby was born to help them learn how to take care of themselves or the new baby between 2012-2015.
- Mothers who reported having a home visitor help them care for themselves/their babies after birth were primarily Black, NH (11.9%) and Asian, NH (8.3%), between 18-29 years old (8.8%), had less than a high school education (11.4%), and had an annual household income less than \$37,000 (10.5%).
- When compared to mothers who had no home visitor help, mothers who reported help of a home visitor in preparation for their new baby were more likely to discuss certain behaviors such as being a healthy weight (23.7% vs. 17%), getting vaccines updated (16.3% vs. 11.6%), visiting a dentist/dental hygienist (17.1% vs. 11.3%), getting counseling for genetic diseases



## 2016 New Jersey PRAMS Chart Book

- (13.7% vs. 10.5%), controlling medical conditions like diabetes and high blood pressure (HBP) (16.7% vs. 9.3%), and getting counseling/treatment for depression/anxiety (11.6% vs. 5.6%).
- Mothers with home visitor help during this timeframe were also more likely to be told that they have depression (11.1%) than their counterparts who did not have home visitors to help prepare for the baby (6.6%).
- When compared to mothers who had no home visitor help, mothers who reported the help of a home visitor after their babies were born were more likely to report discussions about feeling sad/anxious (73.5% vs. 69.6%), the harms of shaking/hitting a baby (75.6% vs. 66.3%), having any problems with breastfeeding (74.9% vs. 65.7%), and contacting breastfeeding support groups (78.5% vs. 68.1%).



## Glossary

### ***Alcohol Use***

A screening/skip question asks “Have you had any alcoholic drinks in the past two years?”. Drinking behavior is queried “in the three months before” and “during” pregnancy. Alcohol use was categorized into: did not use alcohol in the last two years, drink before pregnancy, binge before pregnancy (4 or more drinks in a 2-hour period), and drink during pregnancy.

### ***Body Mass Index***

Mothers are asked their pre-pregnancy weight and height; this is used to later calculate the body mass index (BMI). BMI is categorized as: underweight -  $<18.5 \text{ kg/m}^2$ , normal weight –  $18.5\text{-}24.9 \text{ kg/m}^2$ , overweight –  $25\text{-}29.9 \text{ kg/m}^2$ , and obese -  $>30 \text{ kg/m}^2$ .

### ***Breastfeeding***

Defined as feeding by breast or using pumped breast milk. For interviews through 2011, exclusive postpartum breastfeeding was reported as of the eighth week (the earliest date of interview). Infants who have not been fed any other liquids or solid food were considered to be exclusively breastfed. Beginning in 2012, it is no longer possible to determine exclusive breastfeeding.

### ***Chronic Disease***

Mothers were asked if they had any of the following health conditions during the three months prior to pregnancy: Type 1 or Type 2 diabetes, high blood pressure or hypertension, depression, asthma, thyroid problems, polycystic ovarian syndrome (PCOS), and anxiety. They were also asked if they had any of the following health conditions during pregnancy: gestational diabetes, high blood pressure, and depression and if any of their close family members (ex. mother, father, sisters, or brothers) had diabetes, heart attack before age 55, high blood pressure, breast cancer before age 50, or ovarian cancer.

### ***Dental Health***

Mothers were asked if, before pregnancy, they had been told by a healthcare worker to visit a dentist or dental hygienist. They were also asked to select from a list of options about care of their teeth during their pregnancy. These included knowing the importance of oral health, having insurance to cover dental care, needing to see a dentist, etc.

### ***Flu Vaccination***

Questions regarding flu vaccination were introduced in 2010. Until 2011, mothers were asked if they had been offered a flu shot at any point during their pregnancy, if they received a flu shot since September 2009, and, if yes, during what month and year they received a flu shot. In 2012 and 2013, mothers were asked if they had been offered a flu shot 12 months before delivery of the baby and if they had received a flu shot in the 12 months before delivery.



### ***Health Insurance***

Between 2003 and 2009, health insurance status was determined by considering whether the mothers said “yes” or “no” to having health insurance and whether they said “yes” or “no” to having Medicaid. In 2009 the questionnaire was revised to include questions to identify specific sources, if any, of health insurance. Mothers reported on the type of insurance they received before pregnancy, during pregnancy (for prenatal care visits), and to pay for delivery.

### ***Home Visitation***

Mothers were asked if, during their most recent pregnancy, a home visitor had come to help them prepare for the new baby. They were also asked if, since the new baby was born, a home visitor had come to help them learn how to take care of themselves or the new baby.

### ***Husband/Partner Abuse***

Mothers were asked if their husband or partner had pushed, hit, slapped, kicked, choked, or physically hurt them in any way 12 months before they got pregnant or during their most recent pregnancy.

### ***Income***

Annual Household Income categories in the survey questionnaire changed in 2012. Until 2011, the lowest income category was “less than \$10,000” while the highest category was “\$50,000 or more”. In 2012 the lowest income category changed to “less than \$15,000” while the highest income category changed to “\$79,0001 or more”.

### ***Preconception counseling***

Mothers were asked if a doctor, nurse, or other health care worker had talked to them about improving their health before pregnancy.

### ***Pregnancy Intention***

Pregnancy intention is derived from a single question in the questionnaire that asks how the mother felt about becoming pregnant at the time just before she got pregnant. Responses included: “I wanted to be pregnant later”, “I wanted to be pregnant sooner”, “I wanted to be pregnant then”, and “I didn’t want to be pregnant then or at any time in the future”. These were then used to categorize intention into 3 categories: intended to become pregnant, mistimed (wanted to be pregnant later), and unintended (did not want to be pregnant then or in the future).

### ***Prenatal Care***

Mothers were asked to report at how many weeks/months of their pregnancy they had their first prenatal visit. This week/month report was used to determine whether the mother had an early 1<sup>st</sup> trimester prenatal care (PNC) visit or a late one. In a separate question, respondents were asked if they



had received PNC as early as they wanted. Comparing these two reveal what proportion of mothers received early care and how many felt they received early care.

Mothers also reported if they did not go for PNC. These mothers were able to select from a list of barriers preventing them from receiving PNC. Those who received PNC, were asked if, during any of their PNC visits, a doctor, nurse, or health care worker had talked to them about a number of topics such as weight gain, smoking, breastfeeding, HIV testing, abuse, etc.

### ***Postpartum Depression Symptoms***

Mothers who responded by choosing “always” or “often” to feeling “down, depressed, or hopeless” or to “having little interest or little pleasure in doing things”, were considered to be at a risk for postpartum depression.

### ***Race and Hispanic Origin***

The NJ-PRAMS sampling plan calls for oversampling to more accurately address important social disparities in health. Any person who identifies as Hispanic is classified as such, regardless of what race(s) is/are selected, and these respondents are counted as a separate group. For non-Hispanics, if Black and any additional races are checked, mothers are grouped as non-Hispanic Blacks. Similarly, non-Hispanics who select any of the Asian races are grouped as non-Hispanic Asians. Non-Hispanic Whites include not only mothers who selected non-Hispanic and White but also mothers who selected Other or Unknown or any multi-race mother who is not Black or Asian.

### ***Safe Sleep***

Mothers were asked if they had been told how to lay their new baby down to sleep by a doctor, nurse, or other health care worker. It was also asked which position they most often lay their baby down to sleep at the time of the interview (side, back, stomach). A question that asked how often the baby sleeps in the same bed with the mother or someone else was asked to determine co-sleeping. Finally, the mother was asked to select options to describe how the new baby usually sleeps (in a crib, on a firm mattress, with pillows, etc.).

### ***Sampling Plan, Stratification***

PRAMS starts with a stratified systematic sample of birth certificates (unduplicated for multiple live births). Infants must be at least two months old before mothers are contacted. There are six sampling strata based on birth certificate variables: Whites who reported smoking during pregnancy; any minority (Black, Hispanic, Asian) who also smoked; non-smoking Whites, Blacks, Hispanics, and Asians. Compared to non-smoking Whites, all other groups are oversampled to permit their effective analysis. Weights are used in analysis to [a] adjust estimates to represent the underlying population, and [b] project the annual number of mothers in any category or outcome.



### ***Tobacco Exposure (Smoking Cigarettes)***

A screening/skip question asks “Have you smoked any cigarettes in the past two years?”. Smoking behavior is queried “in the three months before” and “during” pregnancy. A question also records if smoking status changed during pregnancy. Responses to indicate quantity have evolved over questionnaire phases. Respondents are also asked whether they smoked at the time of the interview. These responses were utilized to categorize (cigarette) smoking status into 4 categories: “non-smoker”, “smoked throughout pregnancy”, “quit during pregnancy”, and “relapses after baby was born”.

### ***Teenage Births***

Maternal age is derived from mother’s date of birth as reported in the survey. In the Chart Book, mothers who are less than 18 years of age are referred to as teenagers and any live births reported by them are grouped as “teenage births”.

### ***Weighting, Population Estimates***

Most PRAMS states use stratified sampling plans to oversample groups of special interest. New Jersey oversamples smokers as reported by the birth record, and Blacks, Hispanics and Asians. Analysis as a simple random sample will yield biased estimates. Sampling weights are used to correct for oversampling, and an additional round of non-response adjustments further improve the representativeness of the final, interviewed sample. Weighted samples also require special analysis techniques to accurately estimate sampling error, such as implemented in SAS Survey Analysis procedures or the specialty package SUDAAN (but not SPSS).

### ***Women, Infants, and Children (WIC)***

Mothers were asked if they were on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children) during their most recent pregnancy. Those who responded “yes” were also asked if when they went for their WIC visits, during their most recent pregnancy, did they speak with a breastfeeding peer counselor or another WIC staff person about breastfeeding.