Report on New Mexico Navajo Mothers and Their Infants, 2005-2011

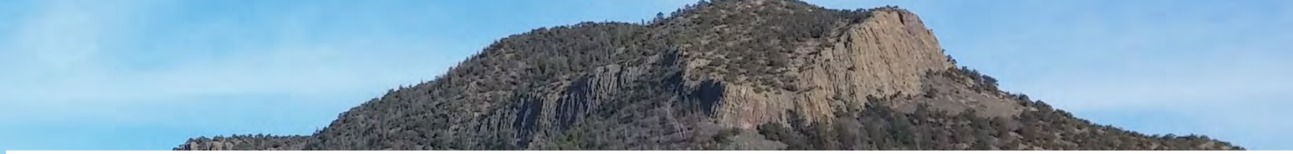
Based on New Mexico Pregnancy Risk Assessment Monitoring System Data

Foreword

The epidemiological report, entitled "Report on New Mexico Navajo Mothers and Their Infants 2005-2011" presents the analysis of the data received from 2005-2011, and updates the 2000-2004 report. The 2005-2011 report is one of many other published reports to come from the Navajo Epidemiology Center (NEC) and Navajo Pregnancy Risk Assessment Monitoring System (PRAMS) Workgroup. The report focuses on Navajo mothers living in New Mexico and intends to inform public health decision makers and health care providers about the health of Navajo mothers and infants in New Mexico.

Reports such as these are routinely published by the state health departments and public health agencies. They are invaluable tools for making key public health decisions and taking action based on epidemiological data. Mothers and their infants constitute an important population and surveys such as the New Mexico PRAMS survey helps broaden our understanding of the successes and identify areas we can improve maternal and child health services.

The NEC has catalogued maternal and child health reports from other public health agencies that contains public health data relevant to Navajo mothers and infants. However, to date this is the only publication of its own pregnancy risk assessment specific to Navajo mothers and infants. This report, focusing on New Mexico, is a partial fulfillment of the goal to publish risk assessment reports for all Navajo mothers and infants in the three states bordering the Navajo Nation: Arizona, New Mexico and Utah.



Acknowledgments

The report is the result of a continuing collaboration between the Navajo Epidemiology Center, New Mexico PRAMS/Maternal and Child Health Epidemiology Program, Navajo Department of Health, Navajo Women, Infants and Children (WIC) Program, Navajo Area Indian Health Service, Albuquerque Area Southwest Tribal Epidemiology Center, Utah PRAMS Program, Arizona Department of Health Services, Centers for Disease Control and Prevention, and University of New Mexico Center for Native American Health. The contributions of the following individuals to this report and toward the cause of enhancing the health of Navajo mothers and infants is acknowledged and applauded:

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Special Thanks

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Table of Contents

Executive Summary

The report highlights stages of pregnancy in three sections: preconception, prenatal and postpartum. The areas identified of most concern are presented below.

Preconception

Three preconception health factors needing improvement were identified.

- Pregnancy planning and contraception – 62% of Navajo mothers who said they were not trying to get pregnant were not using contraception. Over half (52%) of Navajo mothers did not intend to become pregnant, and 16% did not want to become pregnant.
- Multivitamins to prevent birth defects – 61% of Navajo mothers did not take a multivitamin or prenatal vitamin before pregnancy, and only 24% took a daily multivitamin.
- Weight – 57% of Navajo mothers' BMI (body mass index) was above the healthy range. A BMI below 18.5 is considered underweight; 18.5 to 24.9 is considered healthy; 25 to 29.9 is considered overweight; 30 or higher is considered obese.

Prenatal

Pregnant women who have never had diabetes before but who have high blood glucose (sugar) levels during pregnancy are said to have gestational diabetes.

- Diabetes: 3% of Navajo mothers reported having pre-existing diabetes, and 14% developed diabetes during pregnancy (gestational diabetes).

Postpartum

Postpartum depression was common among Navajo mothers.

- Symptoms of depression after delivery were reported by 20% of Navajo mothers.

Changes Over Time

In comparison to the previously published Navajo PRAMS Report 2004-2005, there were some statistically significant changes between 2000-2004 and 2005-2011 in the percentage of women reporting certain health behaviors and services.

- The percentage of Navajo mothers receiving home visiting services doubled over time for visits during pregnancy and for visits after delivery. Home visits during pregnancy increased from 7% to 14% of Navajo mothers in 2000-2004 and 2005-2011, respectively. Similarly, home visits after delivery increased from 12% of mothers in 2000-2004 to 34% in 2005-2011.
- Oral health services during pregnancy also increased between the two report periods. In 2000-2004, 24% of women went to a dentist or dental clinic during pregnancy increasing to 37% in 2005-2011. The percentage of Navajo mothers who had their health care provider discuss how to care for teeth and gums during pregnancy also increased significantly from 29% in 2000-2004 to 53% in 2005-2011.
- There was an increase in Medicaid coverage among Navajo mothers. Medicaid coverage for prenatal care increased from 59% in 2000-2004 to 70% in 2005-2011.
- Navajo mothers were more likely to place their infants in a safe sleep position in 2005-2011 compared to 2000-2004. The percentage placing their infants on their back to sleep increased from 78% to 85%.
- Maternal stress decreased over time in two domains (partner-related stress and traumatic stress). Although not included in the previous report, partner-related stress during pregnancy decreased from 48% of women in 2000-2004 to 37%, and traumatic stress decreased from 40% to 34%.

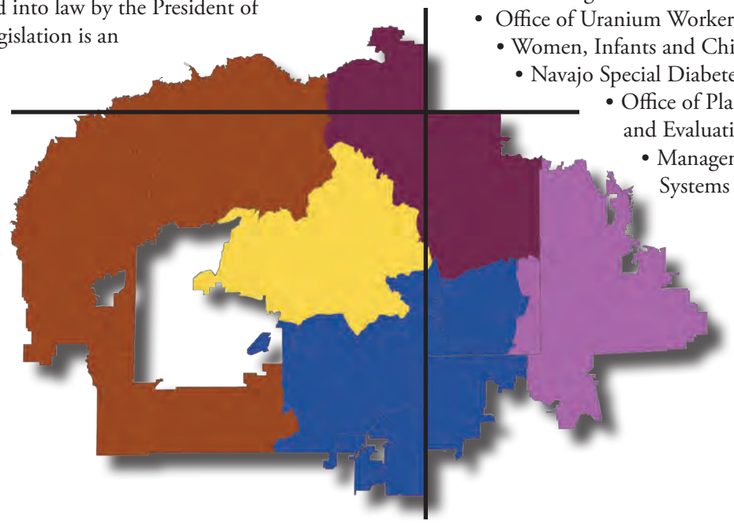
Navajo Epidemiology Center

The Navajo Epidemiology Center (NEC) was established in September 2005 with the intention of identifying high priority Navajo health status objectives, developing disease surveillance systems, and implementing disease control and prevention programs across the Navajo Nation. The NEC is a program within the Navajo Department of Health, which serves one of the largest Native American tribes in the United States. The Navajo Nation has a population of approximately 155,000 Navajos living within the Navajo Nation boundaries (see map below of Navajo Nation 'agencies'), plus approximately another 175,000 living in border towns and metropolitan areas. It serves an area of 27,000 square miles in the southwest United States. Portions of Arizona, New Mexico, and Utah extend into the Navajo Nation lands, necessitating working relationships with the "three-states" on a number of fronts, including public health.

The Navajo Department of Health (previously known as Division of Health since 1977) was established in November 2014 through legislation enacted into law by the President of the Navajo Nation. The legislation is an unprecedented exercise of tribal sovereignty. It establishes the Navajo Department of Health as the first tribally operated state-like health department.

The Navajo Department of Health administers health programs across the Navajo Nation, including:

- Navajo Epidemiology Center
- Navajo Health Education Program
  - Department of Behavioral Health Services
  - Community Health Representatives Program
  - Kayenta Public Health Nursing
  - Office of Environmental Health
  - Navajo Area Agency on Aging
  - Breast and Cervical Cancer Prevention Program
  - New Dawn Program
  - Public Health Emergency Preparedness Program
- Food Distribution Program
  - Office of Uranium Workers
    - Women, Infants and Children Program
      - Navajo Special Diabetes Program
        - Office of Planning, Research and Evaluation
          - Management Information Systems Program



What is PRAMS?

PRAMS is a multi-year, population-based surveillance system developed and sponsored by the Centers for Disease Control and Prevention (CDC) in 40 U.S. states (includes New Mexico and Utah and excludes Arizona) representing approximately 78% of all U.S. live births. The New Mexico PRAMS program monitors the health status, behaviors and experiences of New Mexico mothers before, during and after the birth of a child. Developed and first administered in 1997, New Mexico PRAMS program uses a state-wide survey instrument to query mothers on a variety of pregnancy risk factors, including prenatal care, counseling, multivitamin use, intimate partner abuse, teen pregnancy, home visiting, unintended and unwanted pregnancies, and other factors associated with pregnancy and birth outcomes.

Navajo PRAMS Workgroup

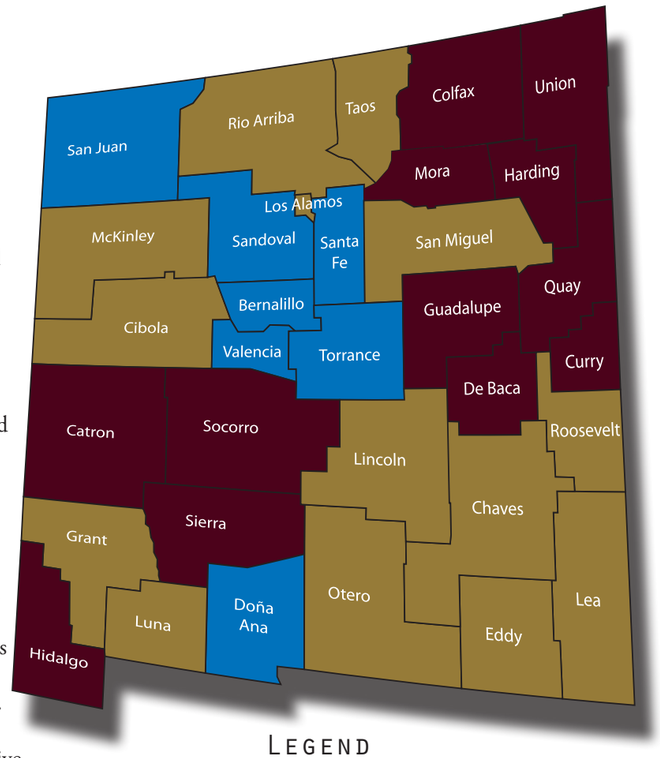
In 1996, the New Mexico PRAMS program initiated a working relationship with the Navajo Department of Health to enhance surveillance data collection on Navajo mothers and their infants who reside in New Mexico. This collaboration between the New Mexico PRAMS and Navajo Department of Health led to the establishment of the Navajo PRAMS Workgroup, which is comprised of the following organizations (see photo of workgroup members above. Not all pictured):

- Navajo Epidemiology Center
- Navajo Nation Division of Health
- New Mexico Pregnancy Risk Assessment Monitoring System Survey
- New Mexico Department of Health
- Arizona Department of Health Services
- Utah Department of Health
- Centers for Disease Control and Prevention
- Albuquerque Area Southwest Tribal Epidemiology Center
- Navajo Women, Infants and Children Program
- Indian Health Service
- Center for Native American Health
- Utah PRAMS

PRAMS Methodology

The report presents the results of the New Mexico PRAMS data analysis for Navajo mothers and infants residing in New Mexico. Mothers who self-identified themselves as Navajo on their infants' birth certificates were considered eligible to be included in the report. While Arizona and Utah fulfill many maternal and child health functions, this report does not include data for Navajo mothers residing in Arizona and Utah. The need to overcome this significant limitation is currently being addressed.

The following sections describe in greater detail the PRAMS methodology undertaken by New Mexico and CDC, which was used to collect the survey data included in this report.



Population and Sample

The eligible New Mexico PRAMS population included all New Mexico resident mothers giving birth in New Mexico. Women who delivered out-of-state or gave their infants for adoption were not eligible for this survey. Information was collected on only one infant from each multiple birth. Because of these exclusions, the eligible New Mexico PRAMS population size was smaller than the number of live births reported by the New Mexico Bureau of Vital Records and Health Statistics. Each month, a stratified sample of eligible New Mexico mothers was randomly drawn (approximately 200 new mothers) from eligible birth certificates at the New Mexico Bureau of Vital Record and Health Statistics. In 2000, New Mexico PRAMS over-sampled low birth weight infants. From 2001 to 2010, New Mexico PRAMS sampled eligible new mothers equally across the five public health regions, and starting in 2011, sampling was stratified by race/ethnicity. Approximately one out of every 12 mothers residing in New Mexico with a recent live birth was selected to receive a survey.

PRAMS Data Collection

According to New Mexico PRAMS data collection procedures, each year those new mothers who were sampled to receive a survey were mailed a survey up to three times between two to six months after delivery. The survey participation was voluntary. Survey recipients were asked to complete the survey and mail it back to the New Mexico PRAMS program. The mailed survey included a cover letter, questionnaire booklet, a return envelope with postage, a question and answer sheet about PRAMS, a list of community resources for families and newborns, an incentive, and an offer of a reward for participation. Those mothers who did not return the survey were called and asked to complete the survey by telephone and were also given a toll-free number to call at any time. The mailings started two to six months after birth, and telephone interviews ended 90 days after the first mailing. After data collection for the birth year ended the survey data were submitted to CDC for cleaning and statistical weighting. The CDC then returned the weighted data to New Mexico PRAMS, which then analyzed and published New Mexico PRAMS surveillance reports; the latest New Mexico PRAMS report covered births from the years 2009-2010.

The PRAMS Questionnaire

The CDC coordinates the PRAMS questionnaire that consists of two parts: a core portion that was the same for all participating states and a state-specific portion that was tailored to New Mexico's needs. Topics of the core portion included:

- Barriers to and content of prenatal care
- Early infant care and breastfeeding
- Economic status
- Health status
- Maternal stress
- Maternal use of alcohol and cigarettes
- Nutrition
- Obstetric history

New Mexico PRAMS Response Rates of Navajo Women, 2005-2011

Year of Infant's Birth	2005	2006	2007	2008	2009	2010	2011	2005-2011
Number of Responses	83	87	73	66	95	87	107	598
Target Number Sample	133	165	134	154	206	169	161	1122
Percent Responded	62.4%	52.7%	54.5%	42.9%	46.1%	51.5%	66.5%	53.3%

PRAMS Questionnaire Phases and Changes

Every 3-5 years the CDC reviews its PRAMS instrument, adding, deleting, and/or modifying the survey instrument. In some cases when questions are not considered productive or relevant, those questions are dropped, clarified, or modified. States can also recommend additional state-specific questions for inclusion in the questionnaire. In the period from 2004 to 2008, New Mexico PRAMS administered the Phase 5 CDC PRAMS questionnaire, and from 2009-2011, the Phase 6 questionnaire was used. The surveillance reports and versions of the survey can be accessed at: http://archive.nmhealth.org/phd/prams/reports.shtml" http://archive.nmhealth.org/phd/prams/reports.shtml

The instrument changes may account for differences when comparing the two multi-year comparisons for the following questions:

- Question 3 on multivitamin use, which began "In the month before…" in Phase 4, was changed to "During the month before…" in Phase 5. Also, "Prenatal vitamin" was added to Question 3 in Phase 5.
- The write-in option for the question on smoking before and during pregnancy was removed in Phase 5 and replaced with an option to select from categories of the number of cigarettes smoked.
- In Phase 5 the options "Norplant" and "Shots" [DepoProvera]" were removed in question 12 (contraception at conception and postpartum), and "Cervical ring" was added as an option.
- The definition of Binge Drinking was changed in Phase 6. In Phase 5 it was defined as having 5 or more alcoholic drinks in one sitting and in Phase 6 it was defined as having 4 or more alcoholic drinks in one sitting.
- The questions on symptoms of postpartum depression were added in Phase 5 and were changed in Phase 6. The Phase 5 survey asked 1) how often the mother has felt down, depressed, or hopeless, and 2) how often she has had little interest or little pleasure in doing things. In Phase 6, the survey asked 1) If the mother felt down, depressed, or sad, 2) if she felt hopeless, 3) if she felt slowed down.
- Household income was asked as an open-ended question in Phase 4. In Phase 5, respondents chose one of seven income range categories, and in Phase 6, respondents chose one of nine income ranges.
- Questions on diabetes have changed over time. In Phase 4, mothers were asked if they had high blood sugar (diabetes) during pregnancy. In Phase 5, mothers were asked two separate questions: 1) did you have high blood sugar (diabetes) that started before this pregnancy, 2) did you have high blood sugar (diabetes) that started during this pregnancy. And in Phase 6, mothers were asked: 1) before you got pregnant with your new baby, were you ever told by a doctor, nurse, or other health care worker that you had Type 1 or Type 2 diabetes, 2) during your most recent pregnancy, were you told by a doctor, nurse, or other health care worker that you had gestational diabetes (diabetes that started during this pregnancy).

Data Limitation and Bias

As with all surveys, self-selection is an inherent bias. In addition, when response rates are not high, there is a concern that bias may result from non-response. That is, participants may be different from non-participants, calling into question the degree to which the information collected applies to the entire population being sampled (in this case, to all New Mexico Navajo mothers). Many studies have demonstrated the differences between participants and non-participants that can result in bias. The overall response rate for Navajo mothers participating in New Mexico PRAMS for 2005-2011 was 53.3% (see table above), which falls below the CDC recommended response rate of at least 65% in order to make statistically valid inferences from the sampled population. As a result, the data presented in this report may not be representative of all Navajo mothers living in New Mexico. Still, the data are weighted so that the Navajo mothers who participated in this survey do provide important information about the Navajo maternal population residing and giving live birth in New Mexico from 2005-2011.

Data Analysis

The report contains mainly descriptive analyses of the survey data. We (Navajo PRAMS Workgroup) report the New Mexico Navajo mothers' answers to the survey questions and stratify their answers by seven demographic factors (called "Maternal characteristics" in the tables); age, education, marital status, residence, income, WIC enrollment, and prenatal care payer. We also tested whether or not there were statistically significant associations (or relationships) between each question and these same seven demographic factors using the Rao-Scott Chi-Square test. The Chi-Square test generates a p-value, which indicates how much confidence we can have that the association is real and not due to chance alone. In this report, we use a p-value of 0.05 as the cut-off point for statistical significance; that is, a p-value less than 0.05 (which is the same as 5%) indicates that a statistically significant association has been found.

Definition of Factors

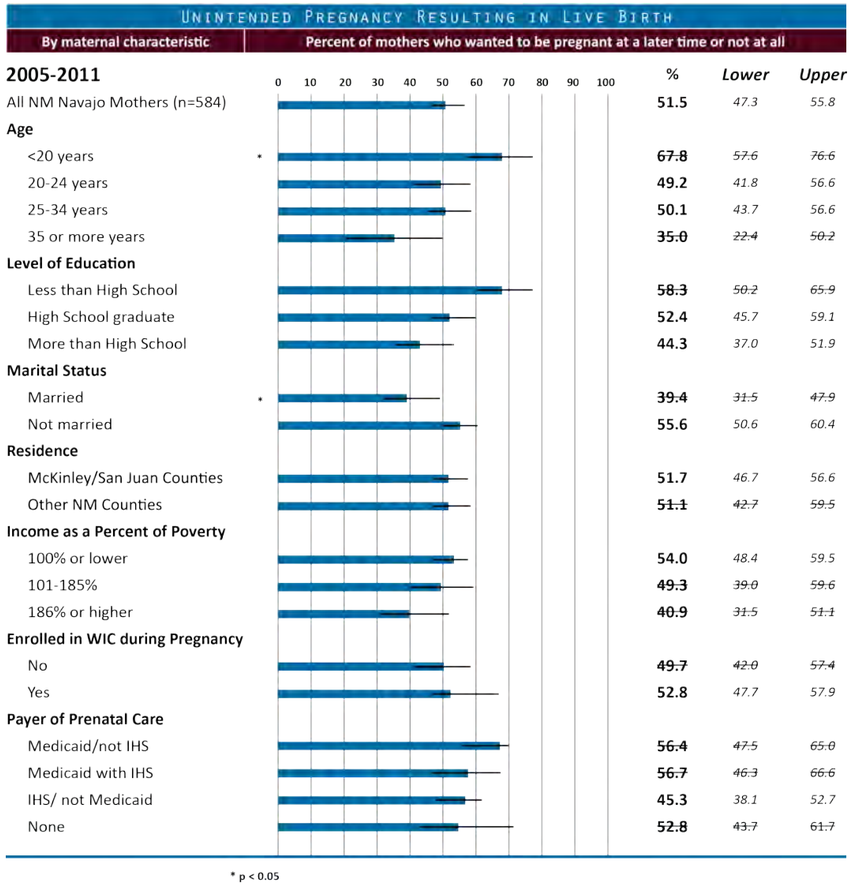
The following factors and definitions were used in the New Mexico PRAMS survey:

Definition of Factors	
Binge Drinking	Having 4/5 or more alcoholic beverages on one occasion (the definition was 5+ from 2005-2008, and 4+ from 2009-2011).
Cigarette Smoking	The smoking of any cigarettes. If the mother said she did not know how many cigarettes she smoked, she was coded as a smoker.
Diabetes, Pre-existing	Type 1 or Type 2 diabetes that was diagnosed before pregnancy.
Diabetes, Gestational	Diabetes that started during pregnancy.
Families FIRST	Families FIRST provide prenatal and postpartum case management support to Medicaid-eligible women and their families. Services include comprehensive psychosocial assessment, support with Medicaid enrollment and education on prenatal health and infant care. Home visiting is offered for both expecting and newly-delivered moms and their families.[1]
Frequent Alcohol Use	Having seven or more drinks in one week.[2]
Intention of Pregnancy	Mothers were asked how they felt about being pregnant at the time of conception. Mothers could respond that they wanted to be pregnant either 1) sooner, 2) later, 3) then, or 4) not then or at any time. "Later" responses meant a mistimed pregnancy; "Not then or at any time" referred to an unwanted pregnancy. Mothers who selected either of these two responses (a mistimed or unwanted pregnancy) were categorized overall as having an "Unintended pregnancy."[3]
Kotelchuck Index	Also called the Adequacy of Pregnancy Care Utilization Index. The index is used to measure prenatal care levels. The Kotelchuck Index is derived from a ratio of actual to recommended number of visits, according to the infant's gestational age at delivery. Women with adequate prenatal care began prenatal visits during the 1st trimester and had an appropriate number of prenatal care visits according to infant gestational age.[1]
Low Birth Weight	Low Birth Weight Infants who weigh less than 2500 grams at birth.
Overweight	BMI (Body Mass Index) was calculated from the mother's self-reported pre-pregnancy weight and height and was determined by dividing her weight (in kg) by height square (in meters). A mother with a BMI of 25 or more was classified as being overweight.[4]
Payer of Prenatal Care	Mother could choose up to 6 options for the payer of their prenatal care, including Indian Health Service (IHS) with or without other payers, Medicaid with or without other private insurance but without IHS, private insurance only, or none of the payers (i.e., no insurance at all).
Postpartum	After childbirth.
Preconception	Preconception Before conception/pregnancy.
Prenatal	renatal The period of time between conception and birth (usually 9 months).
Preterm Birth	Preterm Birth Infants with gestational age less than 37 completed weeks.
Stress, Emotional	Stress, emotional The mother answered "yes" to any of the following: A close family member was very sick and had to go into the hospital; Someone very close to her died.
Stress, Financial	Stress, financial The mother answered "yes" to any of the following: She had a lot of bills she couldn't pay; Her husband/partner lost his job; She lost her job; She moved to a new address.
Stress, Partner-related	Stress, partner-related The mother answered "yes" to any of the following: She was separated/divorced from husband/partner; She argued with husband/partner more than usual; Husband/partner said he didn't want her to be pregnant.
Stress, Traumatic	The mother answered "yes" to any of the following: Someone close to her had a problem with drinking or drugs; Husband/partner went to jail; She was in a physical fight; She was homeless.

Notes:
1. New Mexico Pregnancy Risk Assessment Monitoring System Surveillance Report 2004-2005 Births.
2. Naimi TS, Brewer RD, Mokdad AH, Denny C, Serdula M, Marks JS. Binge drinking among adults. JAMA 2003; 289:0-75.
3. CDC definition of pregnancy: "http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/index.htm" http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/index.htm
4. CDC BMI guidelines: "http://www.cdc.gov/nccdphp/dnpa/obesity/defining.htm" http://www.cdc.gov/nccdphp/dnpa/obesity/defining.htm

How to Read the Tables

What is a confidence interval? In the tables, the confidence interval is depicted by "Error bars" on each bar graph (the dark line drawn through the gray bar graph). As with all surveys, there is some uncertainty associated with the results because not every New Mexico Navajo mother completed the survey. This uncertainty is represented by error bars or confidence intervals. Confidence intervals will vary between narrow intervals (more precise) and wide intervals (less precise). The tables in this report are based on a 95% confidence interval with the width of the interval indicating how much "Confidence" we have that the interval contains true values. For example, in the sample page at right we are 95% confident that the actual percentage of all New Mexico Navajo mothers whose pregnancy was unintended falls between 47.3% and 55.8%. A very wide interval is depicted by strikethroughs in the tables and indicates that the value is less precise, therefore, must be used with caution. A narrow confidence interval indicates that the data are considered more precise, therefore, more trustworthy. Determination of which intervals are narrow and which are wide is based on several statistical factors, including the number of respondents.



different depending on the "Age" of the mother. In this case, the younger the mother, the higher the percentage of unintended pregnancies.

Data Comparisons

The following data (on the next two pages) are from mothers who participated in the 2005-2011 New Mexico PRAMS survey, including Navajo mothers, and the 2008 national PRAMS data.1 The New Mexico data were sub-grouped into: 1) New Mexico Navajo mothers, 2) New Mexico other Native Americans (Non-Navajo) mothers, and 3) New Mexico all mothers. The national PRAMS data included mothers from 29 states.

The purpose of the table is to summarize and compare maternal behaviors and experiences between New Mexico Navajo mothers and other mothers in New Mexico and the U.S. Comparisons such as these can show us if Navajo mothers' experiences are different and to identify and target needs.

What is the p-value or statistical significance? For this report the Rao-Scott Chi-Square statistic was used to test the association between a maternal characteristic and a maternal health topic. The Chi-Square test results in a p-value that determines if the association between the maternal characteristic and the maternal health topic was "statistically significant." If the calculated p-value was less than 0.05 (<0.05), then the association was considered to be statistically significant, in other words, the percentage value of the maternal health topic is different for the levels of the maternal characteristic. In this sample table, the Chi-Square tested the association between "Unintended pregnancy resulting in live birth" (Maternal health topic) and "Age" (Maternal characteristic). The calculated p-value for this test was <0.05, making it statistically significant. Therefore, "Unintended pregnancy" is significantly

Maternal Behaviors and Experiences of Women who Participated in the New Mexico PRAMS (2005-2011) and National PRAMS (2008) Surveys				
Maternal Behavior/ Experience	NM Navajo Mothers (N=598) (%)	NM Native American Mothers who are not Navajo (N=386) (%)	NM All Mothers (N=9091) (%)	National PRAMS 2008 (N=41,709) (%)
Alcohol Use				
Frequent or binge alcohol use in the 3 months before pregnancy	16.5	25.8	20.5	19.2
Alcohol Use in last Trimester of Pregnancy	4.3	6.5	6.2	6.5
Breastfeeding				
Ever breastfed- initiation	83.8	86.8	85.6	75.7
Breastfed for at least 2 months duration	60.8	66.4	60.1	DNC
Breastfeeding class after delivery	11.5	18.8	15.5	DNC
Contraception Use				
Did not use contraception at time of conception (among those not trying to get pregnant)	61.6	59.7	50.8	DNC
Postpartum contraception use	76.6	80.4	84.9	82.4
Diet and Nutrition				
Prepregnancy overweight	56.9	52.7	43.7	DNC
Diabetes that started before pregnancy	2.8	5.0	2.5	2.4
Diabetes that started during pregnancy	13.6	11.3	8.6	9.7
Food insufficiency - sometimes or often did not have enough food to eat	20.4	15.9	13.2	DNC
WIC services during pregnancy	69.5	66.3	56.1	46.7
Families FIRST Services				
Families FIRST services during pregnancy	5.4	3.7	8.4	DNC
Families FIRST services after delivery	4.4	5.3	7.0	DNC
Folic Acid/Multivitamin Use				
Preconception daily multivitamin use	24.2	23.7	27.5	29.5
Home Visiting Services				
Home visiting services during pregnancy	13.5	14.8	7.4	DNC
Home visiting services after delivery	34.4	25.0	13.9	DNC
Infant Sleep Position				
Usually placed their infant to sleep on his/her back	94.9	84.9	70.1	67.1
Neonatal Intensive Care Unit (NICU)				
Baby was put in neonatal intensive care after birth	9.5	10.3	11.6	20.5

Maternal Behaviors and Experiences of Women who Participated in the New Mexico PRAMS (2005-2011) and National PRAMS (2008) Surveys				
Maternal Behavior/ Experience	NM Navajo Mothers (N=598) (%)	NM Native American Mothers who are not Navajo (N=386) (%)	NM All Mothers (N=9091) (%)	National PRAMS 2008 (N=41,709) (%)
Oral Health				
Oral health discussion during pregnancy	52.8	56.6	44.7	DNC
Oral health services during pregnancy - went to dentist or dental clinic	37.3	44.5	39.1	DNC
Phyiscal Abuse				
Physical abuse by husband or partner in the year before pregnancy	8.2	7.6	5.0	3.8
Physical abuse by husband or partner in the year before baby's birth	7.0	6.2	4.0	2.7
Postpartum Depression				
Symptoms of postpartum depression	20.1	14.7	15.4	DNC
Prenancy Intention				
An unintended pregnancy resulting in live birth	51.5	56.1	45.3	41.6
An unwanted pregnancy	16.4	18.2	10.9	10.2
Prenatal Care				
Medicaid Coverage for prenatal care	70.3	69.6	52.1	41.6
Late (after 1st trimester) or no prenatal care reported from birth certificate	43.1	35.9	24.8	17.4
Adequate prenatal care (Kotelchuck Index) - see definitions	49.4	49.3	64.6	72.6
Stress During Pregnancy				
Emotional stress	34.9	41.0	31.4	30.8
Financial stress	56.2	49.1	54.8	49.8
Partner-related stress	36.6	42.6	34.2	31.6
Traumatic stress	33.7	32.6	23.7	19.5
Tobacco/Cigarette Use				
Cigarette smoking in the 3 months before pregnancy	16.8	17.5	21.6	23.9
Cigarette smoking in the last trimester of pregnancy	4.3	6.4	8.5	14.3
Cigarette smoking after delivery	7.7	9.7	14.1	18.9
Smoking cessation program during pregnancy	1.8	0.5	1.4	DNC
Smoking cessation program after delivery	0.7	1.3	1.1	DNC

Demographics

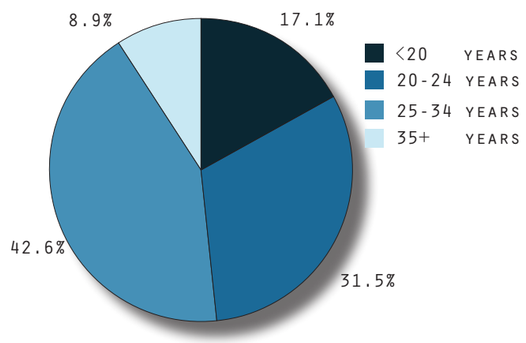
Demographics are the characteristics of a population. For this report, the population is comprised of the 598 Navajo mothers who participated in the New Mexico PRAMS survey from 2005-2011. The demographics collected were age, level of education, marital status, county of residence, income, Women, Infants and Children (WIC) program enrollments, and health insurance coverage. The graphs below show the following about the New Mexico Navajo mothers in this report.

The graphs below show the following about the New Mexico Navajo mothers in this report:

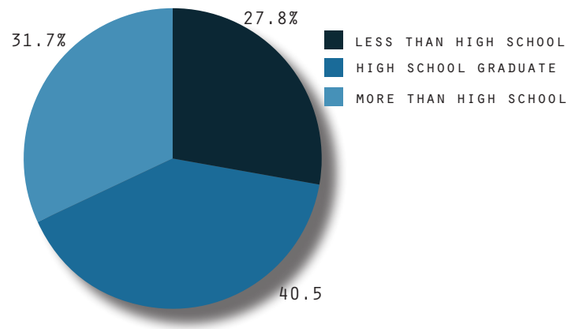
- Most had at least a high school education.
- Most were between 20-34 years of age.
- Most were not married.
- Most lived in either McKinley or San Juan counties.
- Most had incomes below 185% of the Federal Poverty Level

The majority of the 598 Navajo mothers who participated in the New Mexico PRAMS survey were (42.6%) 20-34 years old, 40.5% had at least a high school education but not college, 74.3% were not married, 25.9% resided in McKinley/San Juan counties (the two major New Mexico counties overlapping the Navajo Nation), and 6.3% had a low level of income. The majority of mothers was enrolled in the WIC program during pregnancy, and had Medicaid as the major payer of prenatal care.

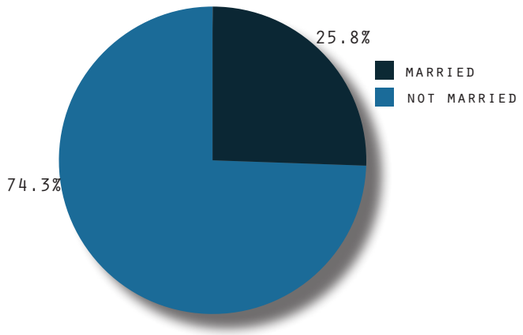
AGE GROUP



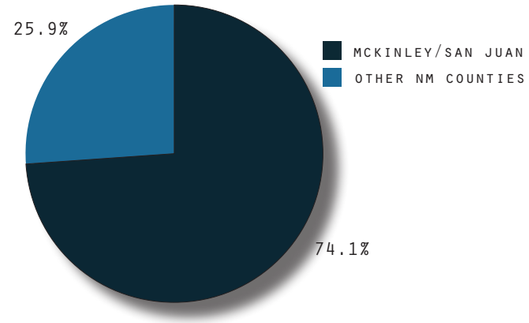
LEVEL OF EDUCATION



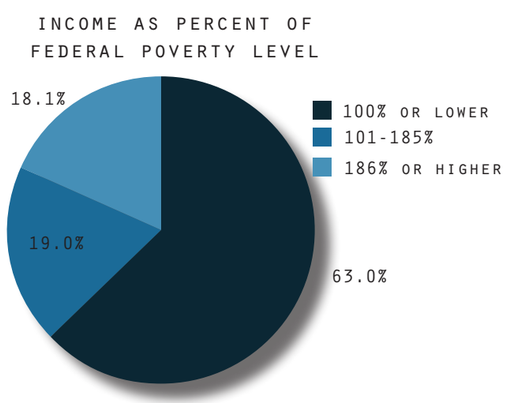
MARITAL STATUS

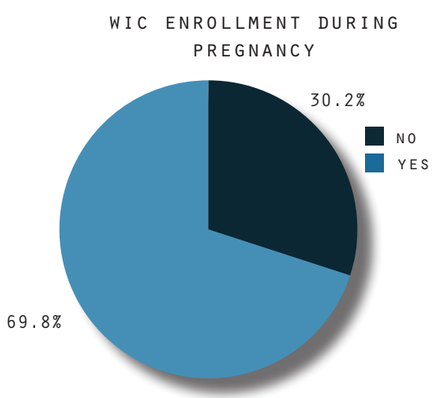


COUNTY OF RESIDENCE

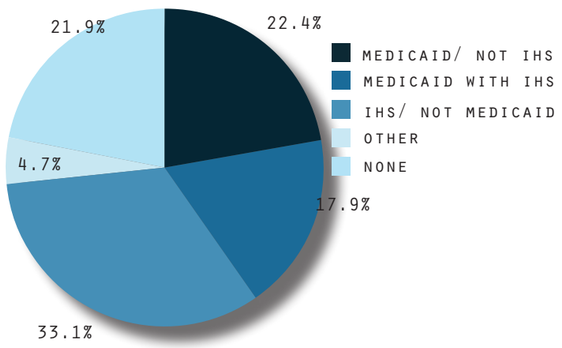


Compared to the previous Navajo PRAMS Report from 2000-2004, there was a higher percentage of respondents in the 2005-2011 report that had incomes under the Federal Poverty Level (64% vs. 52%), a higher percentage were enrolled in Medicaid before pregnancy (40% vs. 30%), a higher percentage were enrolled in Medicaid during pregnancy (68% vs. 59%), and a smaller percentage reported I.H.S. as a payer of prenatal care (48% vs. 56%).

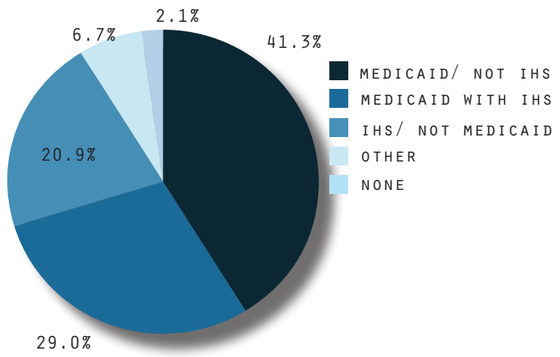




PRECONCEPTION INSURANCE COVERAGE



PRENATAL INSURANCE COVERAGE



Preconception

Preconception is the period before pregnancy. The health of women during preconception is important for conception and for healthy births. Unhealthy behaviors and experiences before pregnancy can put the mother and child at risk for adverse birth and health outcomes.

The New Mexico PRAMS survey assessed for the preconception period were multivitamin use (folic acid), unintended and unwanted pregnancy, contraception use, prepregnancy weight and diabetes, alcohol and tobacco use, and physical abuse.

The data collected in the preconception period here identify four major health areas that we can work to improve: 1) contraception use/unintended pregnancy, 2) multivitamin use, 3) prepregnancy weight, and 4) diabetes.

Key Findings

- A high prevalence of Navajo mothers did not use contraception at conception. 62% of Navajo mothers who said they were not trying to get pregnant were not using contraception.
- Unintended pregnancy. Over half of Navajo mothers (52%) did not intend to get pregnant. Navajo mothers who were younger and unmarried were more likely to report an unintended pregnancy.
- Low multivitamin use during the month before pregnancy. 61% of Navajo mothers did not take a multivitamin or prenatal vitamin; only 24% took a multivitamin daily during the month before pregnancy.
- Overweight. The data indicate that BMI was too high for 57% of Navajo mothers. The mothers who were overweight were older, had higher levels of education, and were married.
- 3% of Navajo mothers reported having pre-existing diabetes, and 14% developed diabetes during pregnancy (gestational diabetes). Navajo women who were married, older, and reported I.H.S. as a payer of prenatal care were significantly more likely to have gestational diabetes.

Preconception Multivitamin use

By maternal characteristic	Percent of mothers who took a multivitamin or prenatal vitamin daily during the month before pregnancy	%	Lower	Upper
2005-2011	0 5 10 15 20 25 30 35 40 45 50			
All NM Navajo Mothers (n=593)		**24.2**	*20.9*	*27.9*
Age				
<20 years		~~**28.9**~~	~~*20.8*~~	~~*38.7*~~
20-24 years		**26.1**	*20.1*	*33.0*
25-34 years		**21.9**	*17.2*	*27.5*
35 or more years		~~**20.2**~~	~~*11.9*~~	~~*32.2*~~
Level of Education				
Less than High School		**26.0**	*19.9*	*33.3*
High School graduate		**25.6**	*20.4*	*31.6*
More than High School		**19.3**	*14.3*	*25.6*
Marital Status				
Married		**22.9**	*16.9*	*30.4*
Not married		**24.7**	*20.8*	*29.0*
Residence				
McKinley/San Juan Counties		**26.1**	*22.2*	*30.5*
Other NM Counties		**19.0**	*13.4*	*26.3*
Income as a Percent of Poverty				
100% or lower		**24.2**	*19.9*	*29.0*
101-185%		**21.7**	*14.9*	*30.4*
186% or higher		~~**23.8**~~	~~*16.5*~~	~~*33.0*~~
Enrolled in WIC during Pregnancy				
No		**20.6**	*17.4*	*32.0*
Yes		**25.5**	*21.4*	*30.1*
Payer of Prenatal Care				
Medicaid/not IHS		**23.9**	*17.4*	*32.0*
Medicaid with IHS		~~**31.8**~~	~~*23.6*~~	~~*41.4*~~
IHS/ not Medicaid		**23.2**	*17.7*	*29.9*
None		**20.2**	14.1	26.0

Folic acid is a B-vitamin. Taking a multivitamin containing folic acid before pregnancy can help prevent Neural Tube Defects (NTD), that is a birth defect characterized by malformations of the spine and brain. A quarter, 24% of Navajo mothers took a prenatal or multivitamin daily in the month before pregnancy, an increase from 20% percent in the 2000-2004 report. The table also indicates that this behavior did not vary significantly by the demographic characteristics shown in the table, including age, education, marital status, region of residence, income, WIC enrollment, or payer of preconception care.

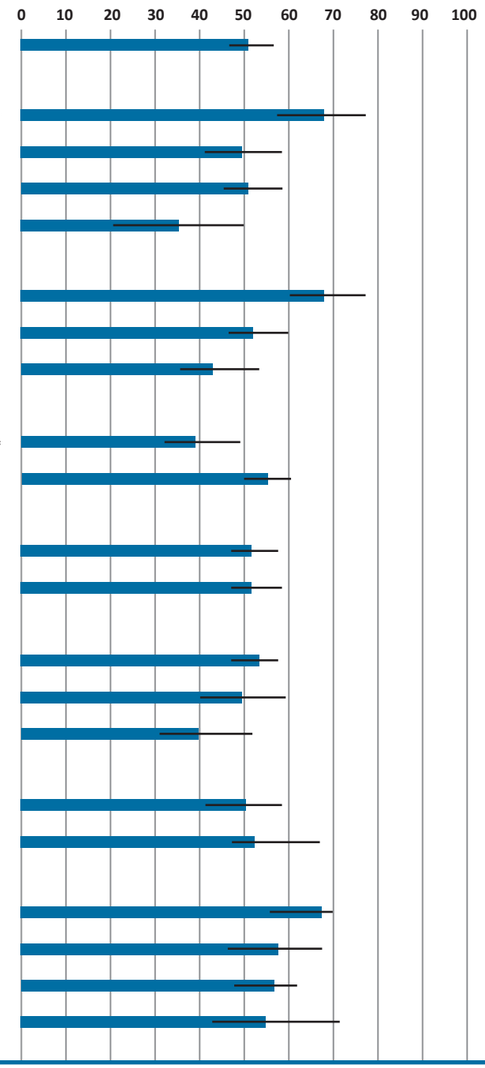
No Preconception Multivitamin Use

By maternal characteristic	Percent of mothers who did not take a multivitamin or prenatal vitamin during the month before pregnancy	%	Lower	Upper
2005-2011	0 10 20 30 40 50 60 70 80 90 100			
All NM Navajo Mothers (n=584)		**61.0**	*56.8*	*65.1*
Age				
<20 years		~~**60.5**~~	~~*50.2*~~	~~*70.0*~~
20-24 years		**61.4**	*53.9*	*68.3*
25-34 years		**60.8**	*54.3*	*66.8*
35 or more years		~~**61.5**~~	~~*46.0*~~	~~*75.0*~~
Level of Education				
Less than High School		~~**58.1**~~	~~*50.1*~~	~~*65.6*~~
High School graduate		**65.3**	*58.6*	*71.4*
More than High School		**59.0**	*51.4*	*66.1*
Marital Status				
Married		~~**58.1**~~	~~*49.7*~~	~~*66.0*~~
Not married		**62.0**	*57.1*	*66.6*
Residence				
McKinley/San Juan Counties		**58.7**	*53.8*	*67.9*
Other NM Counties		~~**67.6**~~	~~*59.4*~~	~~*74.8*~~
Income as a Percent of Poverty				
100% or lower		**62.7**	*57.2*	*67.9*
101-185%		~~**63.4**~~	~~*53.6*~~	~~*72.3*~~
186% or higher		~~**56.3**~~	~~*46.2*~~	~~*66.0*~~
Enrolled in WIC during Pregnancy				
No		~~**58.2**~~	~~*50.3*~~	~~*65.6*~~
Yes		**62.6**	*57.6*	*67.4*
Payer of Prenatal Care				
Medicaid/not IHS		~~**61.3**~~	~~*52.3*~~	~~*69.7*~~
Medicaid with IHS		~~**54.1**~~	~~*43.9*~~	~~*64.1*~~
IHS/ not Medicaid		**63.4**	*56.2*	*70.1*
None		~~**63.5**~~	~~54.5~~	~~71.7~~

Almost two-thirds, 61%, of Navajo mothers did not take a multivitamin or prenatal vitamin before conception and was unchanged from the previous report on data from 2000-2004. The percentage did not vary significantly by demographic characteristics of the mother.

Unintended Pregnancy Resulting in Live Birth

By maternal characteristic		Percent of mothers who wanted to be pregnant at a later time or not at all		
2005-2011				
			%	***Lower***	***Upper***
All NM Navajo Mothers (n=584)			**51.5**	*47.3*	*55.8*
Age					
<20 years	*		~~**67.8**~~	~~*57.6*~~	~~*76.6*~~
20-24 years			**49.2**	*41.8*	*56.6*
25-34 years			**50.1**	*43.7*	*56.6*
35 or more years			~~**35.0**~~	~~*22.4*~~	~~*50.2*~~
Level of Education					
Less than High School			~~**58.3**~~	~~*50.2*~~	~~*65.9*~~
High School graduate			**52.4**	*45.7*	*59.1*
More than High School			**44.3**	*37.0*	*51.9*
Marital Status					
Married	*		~~**39.4**~~	~~*31.5*~~	~~*47.9*~~
Not married			**55.6**	*50.6*	*60.4*
Residence					
McKinley/San Juan Counties			**51.7**	*46.7*	*56.6*
Other NM Counties			~~**51.1**~~	~~*42.7*~~	~~*59.5*~~
Income as a Percent of Poverty					
100% or lower			**54.0**	*48.4*	*59.5*
101-185%			~~**49.3**~~	~~*39.0*~~	~~*59.6*~~
186% or higher			~~**40.9**~~	~~*31.5*~~	~~*51.1*~~
Enrolled in WIC during Pregnancy					
No			~~**49.7**~~	~~*42.0*~~	~~*57.4*~~
Yes			**52.8**	*47.7*	*57.9*
Payer of Prenatal Care					
Medicaid/not IHS			~~**56.4**~~	~~*47.5*~~	~~*65.0*~~
Medicaid with IHS			~~**56.7**~~	~~*46.3*~~	~~*66.6*~~
IHS/ not Medicaid			**45.3**	*38.1*	*52.7*
None			~~**52.8**~~	~~*43.7*~~	~~*61.7*~~

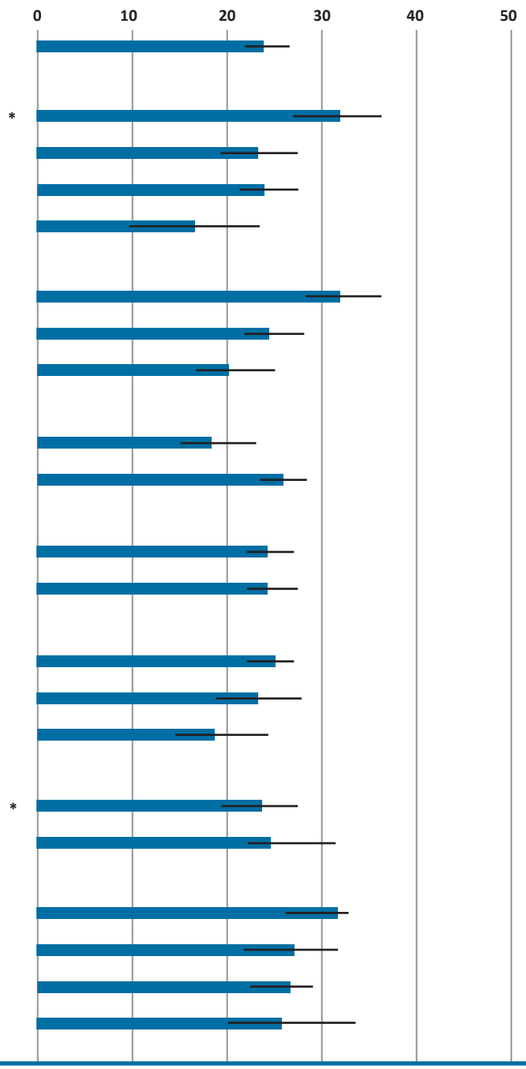


* p < 0.05

Folic acid is a B-vitamin. Taking a multivitamin containing folic acid before pregnancy can help prevent Neural Tube Defects (NTD), that is a birth defect characterized by malformations of the spine and brain. A quarter, 24% of Navajo mothers took a prenatal or multivitamin daily in the month before pregnancy, an increase from 20% percent in the 2000-2004 report. The table also indicates that this behavior did not vary significantly by the demographic characteristics shown in the table, including age, education, marital status, region of residence, income, WIC enrollment, or payer of preconception care.

Unwanted Pregnancy

By maternal characteristic		Percent of mothers who did not want to be pregnant then or at any time in the future		
2005-2011				
			%	***Lower***	***Upper***
All NM Navajo Mothers (n=584)			**16.4**	*13.5*	*19.8*
Age					
<20 years	*		~~**13.8**~~	~~*8.3*~~	~~*22.2*~~
20-24 years			**12.0**	*8.0*	*17.8*
25-34 years			**22.5**	*17.4*	*28.7*
35 or more years			**9.0**	*4.1*	*18.7*
Level of Education					
Less than High School			**18.3**	~~*13.0*~~	~~*25.1*~~
High School graduate			**16.0**	*11.6*	*21.8*
More than High School			**14.8**	*10.2*	*21.1*
Marital Status					
Married			**13.4**	*8.6*	*20.4*
Not married			**17.4**	*13.9*	*21.4*
Residence					
McKinley/San Juan Counties			**16.7**	*13.3*	*20.7*
Other NM Counties			**15.5**	*10.4*	*22.6*
Income as a Percent of Poverty					
100% or lower			**16.8**	*13.0*	*21.4*
101-185%			**13.4**	*7.8*	*22.2*
186% or higher			~~**16.6**~~	~~*10.2*~~	~~*25.8*~~
Enrolled in WIC during Pregnancy					
No	*		**21.9**	*16.1*	~~*29.0*~~
Yes			**14.1**	*10.9*	*18.1*
Payer of Prenatal Care					
Medicaid/not IHS			**20.1**	*14.1*	~~*27.8*~~
Medicaid with IHS			**16.9**	*10.2*	*26.6*
IHS/ not Medicaid			**11.7**	*7.9*	*17.0*
None			**18.9**	12.6	27.4

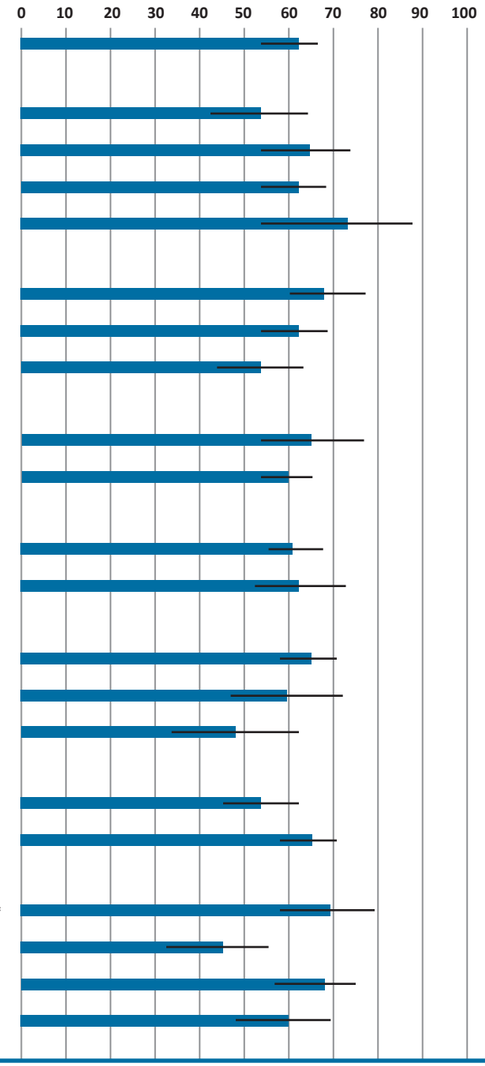


* p < 0.05

In the previous table on "Unintended pregnancy," Navajo mothers indicated wanting to be pregnant later or not at all. In this table on "Unwanted pregnancy," Navajo mothers indicated not wanting to be pregnant then or at any time in the future. According to this table, 16% (16% from previous report) of Navajo mothers said their pregnancy was unwanted. Navajo mothers aged 25-34 years were significantly more likely to have had unwanted pregnancies, as were mothers who were not enrolled in the WIC program during pregnancy.

Not Using Contraception

By maternal characteristic	Among mothers who said they were not trying to get pregnant, percent who were not using contraception at conception			
2005-2011		**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=584)		**61.6**	*56.4*	*66.6*
Age				
<20 years		~~**54.5**~~	~~*42.7*~~	~~*65.8*~~
20-24 years		~~**64.3**~~	~~*55.3*~~	~~*72.5*~~
25-34 years		~~**61.4**~~	~~*52.8*~~	~~*69.4*~~
35 or more years		~~**73.4**~~	~~*53.0*~~	~~*87.1*~~
Level of Education				
Less than High School		~~**68.3**~~	~~*59.0*~~	~~*76.3*~~
High School graduate		~~**62.0**~~	~~*53.8*~~	~~*69.5*~~
More than High School		~~**53.2**~~	~~*42.8*~~	~~*63.4*~~
Marital Status				
Married		~~**66.8**~~	~~*53.8*~~	~~*77.7*~~
Not married		**60.6**	*54.8*	*66.1*
Residence				
McKinley/San Juan Counties		**61.2**	*55.0*	*67.0*
Other NM Counties		~~**62.8**~~	~~*52.4*~~	~~*72.2*~~
Income as a Percent of Poverty				
100% or lower		**65.5**	*58.9*	*71.6*
101-185%		~~**60.5**~~	~~*47.2*~~	~~*72.4*~~
186% or higher		~~**48.1**~~	~~*34.4*~~	~~*62.1*~~
Enrolled in WIC during Pregnancy				
No		~~**53.1**~~	~~*43.3*~~	~~*62.6*~~
Yes		**65.2**	*59.0*	*71.0*
Payer of Prenatal Care				
Medicaid/not IHS	*	~~**70.6**~~	~~*59.8*~~	~~*79.5*~~
Medicaid with IHS		~~**44.6**~~	~~*33.0*~~	~~*56.8*~~
IHS/ not Medicaid		~~**68.0**~~	~~*58.6*~~	~~*76.1*~~
None		~~**60.1**~~	~~48.8~~	~~*70.4*~~

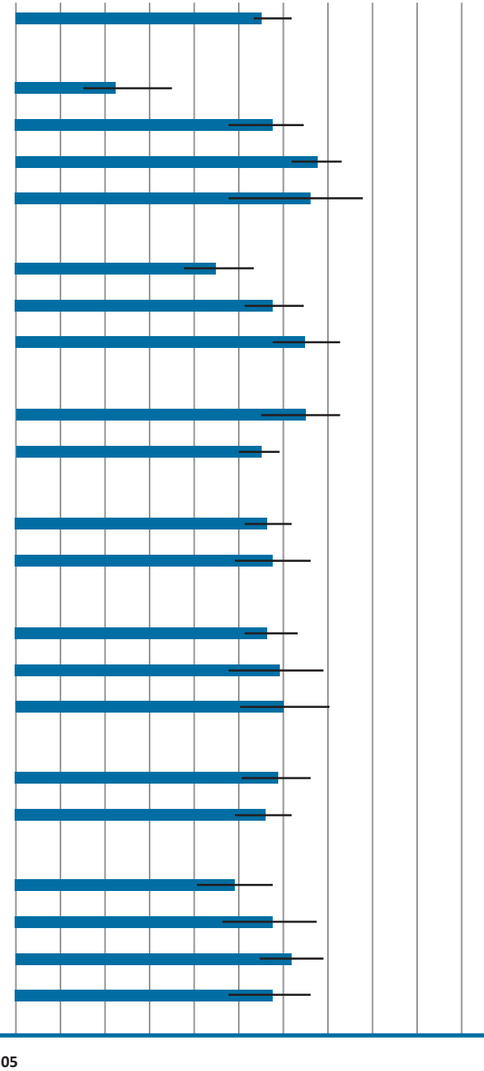


*** p < 0.05**

Among Navajo mothers who would have liked to delay their pregnancy, 62% (65% previous report) were not using any method of contraception when they became pregnant. Navajo women with a higher level of education were somewhat more likely to use contraception, as were women with higher income. However, the only statistically significant association was between contraceptive use and payer of preconception health care. Navajo women receiving Medicaid benefits and I.H.S. healthcare services were more likely to be using contraception.

Overweight During Preconception

By maternal characteristic	Percent of mothers whose Body Mass Index (BMI) was above a healthy range			
2005-2011		**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=584)		**56.9**	*52.6*	*61.1*
Age				
<20 years	*	~~**23.4**~~	~~*15.4*~~	~~*34.0*~~
20-24 years		**57.2**	*49.8*	*64.3*
25-34 years		**67.9**	*61.8*	*73.6*
35 or more years		~~**66.2**~~	~~*49.5*~~	~~*79.6*~~
Level of Education				
Less than High School	*	~~**46.5**~~	~~*38.7*~~	~~*54.6*~~
High School graduate		**58.3**	*51.5*	*64.9*
More than High School		**65.4**	*58.1*	*72.0*
Marital Status				
Married	*	~~**65.0**~~	~~*56.7*~~	~~*72.4*~~
Not married		**54.2**	*49.3*	*59.1*
Residence				
McKinley/San Juan Counties		**56.7**	*51.7*	*61.5*
Other NM Counties		~~**57.5**~~	~~*49.1*~~	~~*65.6*~~
Income as a Percent of Poverty				
100% or lower		**56.7**	*51.2*	*62.1*
101-185%		~~**59.4**~~	~~*49.0*~~	~~*69.0*~~
186% or higher		~~**60.6**~~	~~*50.4*~~	~~*70.0*~~
Enrolled in WIC during Pregnancy				
No		~~**58.9**~~	~~*51.0*~~	~~*66.4*~~
Yes		**56.0**	*50.9*	*61.0*
Payer of Prenatal Care				
Medicaid/not IHS		~~**50.9**~~	~~*41.9*~~	~~*59.7*~~
Medicaid with IHS		~~**57.1**~~	~~*46.6*~~	~~*67.0*~~
IHS/ not Medicaid		**62.5**	*55.2*	*69.2*
None		~~**57.1**~~	~~*47.9*~~	~~*65.8*~~



*** p < 0.05**

Over one-half, 57% (54% from previous report), of Navajo mothers reported being overweight before pregnancy. Navajo women were significantly overweight if they were older, had more than high school education, or were married.

Pre-Existing Diabetes

By maternal characteristic	Percent of mothers with diabetes before pregnancy	%	Lower	Upper
2005-2011	0 5 10 15 20			
All NM Navajo Mothers (n=584)		**2.8**	*1.7*	*4.4*
Age				
<20 years				
20-24 years		**2.3**	*0.9*	*6.0*
25-34 years		**3.1**	*1.5*	*6.0*
35 or more years		**8.3**	*3.4*	*18.7*
Level of Education				
Less than High School		~~**1.2**~~	~~*0.3*~~	~~*4.7*~~
High School graduate		**3.5**	*1.8*	*6.9*
More than High School		**3.4**	*1.7*	*6.9*
Marital Status				
Married		**4.1**	*1.9*	*8.8*
Not married		**2.3**	*1.3*	*4.2*
Residence				
McKinley/San Juan Counties		**3.0**	*1.8*	*5.0*
Other NM Counties		~~**2.2**~~	~~*0.7*~~	~~*6.5*~~
Income as a Percent of Poverty				
100% or lower		**1.9**	*0.9*	*4.0*
101-185%		~~**1.0**~~	~~*0.2*~~	~~*6.8*~~
186% or higher		**5.8**	*2.6*	*12.4*
Enrolled in WIC during Pregnancy				
No		**3.9**	*1.9*	*8.0*
Yes		**2.3**	*1.2*	*4.2*
Payer of Prenatal Care				
Medicaid/not IHS		~~**1.8**~~	~~*0.5*~~	~~*6.7*~~
Medicaid with IHS		**3.7**	*1.4*	*9.6*
IHS/ not Medicaid		**3.0**	*1.4*	*6.5*
None		~~**2.0**~~	~~0.7~~	~~6.2~~

Pre-existing diabetes appears to be higher among Navajo mothers who were older and had a higher income level, but none of the maternal characteristics were statistically significantly associated with pre-existing diabetes. Overall, 3% of Navajo mothers reported having pre-existing diabetes.

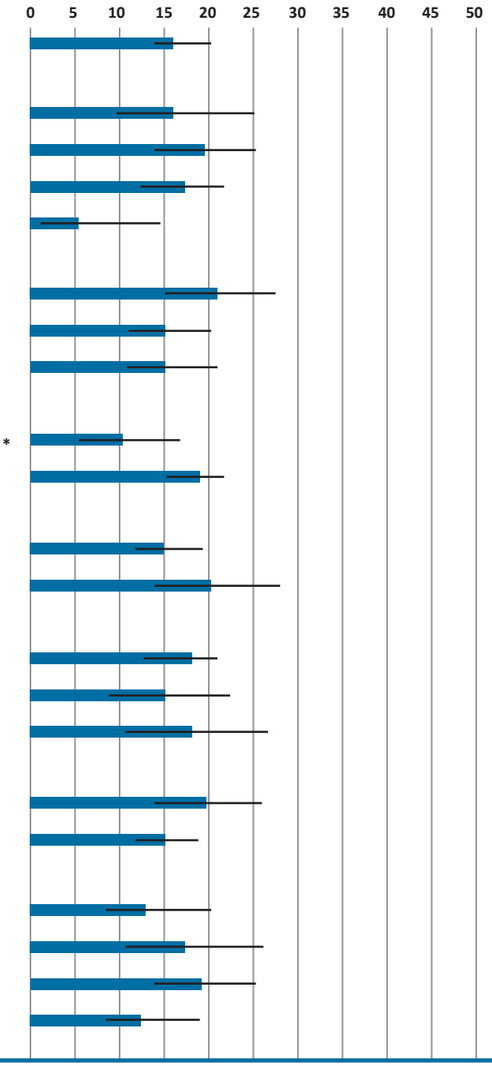
Frequent or binge alcohol use in the 3 months before pregnancy

By maternal characteristic	Percent of mothers who had 5+ drinks in one sitting or drank 7 or more times per week	%	Lower	Upper
2005-2011	0 5 10 15 20 25 30 35 40 45 50			
All NM Navajo Mothers (n=584)		**16.5**	*13.5*	*19.9*
Age				
<20 years	*	**6.6**	*3.2*	*14.4*
20-24 years		**20.9**	*15.0*	*28.3*
25-34 years		**20.2**	*15.6*	*25.8*
35 or more years		**4.9**	*1.6*	*14.4*
Level of Education				
Less than High School		**17.3**	*12.2*	*23.9*
High School graduate		**12.4**	*8.3*	*18.3*
More than High School		**21.1**	*15.7*	*27.9*
Marital Status				
Married		**15.6**	*10.3*	*22.8*
Not married		**16.8**	*13.4*	*20.8*
Residence				
McKinley/San Juan Counties	*	**14.0**	*10.9*	*18.0*
Other NM Counties		**23.2**	*17.0*	*30.7*
Income as a Percent of Poverty				
100% or lower		**17.1**	*13.4*	*21.5*
101-185%		~~**15.4**~~	~~*8.4*~~	~~*26.5*~~
186% or higher		**16.1**	*10.0*	*25.0*
Enrolled in WIC during Pregnancy				
No		**20.3**	*14.9*	*27.2*
Yes		**14.7**	*11.3*	*18.8*
Payer of Prenatal Care				
Medicaid/not IHS		**12.1**	*7.5*	*19.0*
Medicaid with IHS		**14.2**	*8.9*	*21.9*
IHS/ not Medicaid		**19.9**	*14.4*	*27.0*
None		**15.5**	10.0	23.3

*** p < 0.05**

Sixteen percent (16% from previous report) of Navajo mothers reported that they were frequent or binge alcohol drinkers before becoming pregnant. Women who were in the 20-34 years old age group, or did not live in McKinley or San Juan counties were statistically significantly more likely to drink frequently or binge drink.

Cigarette smoking in the 3 months before pregnancy

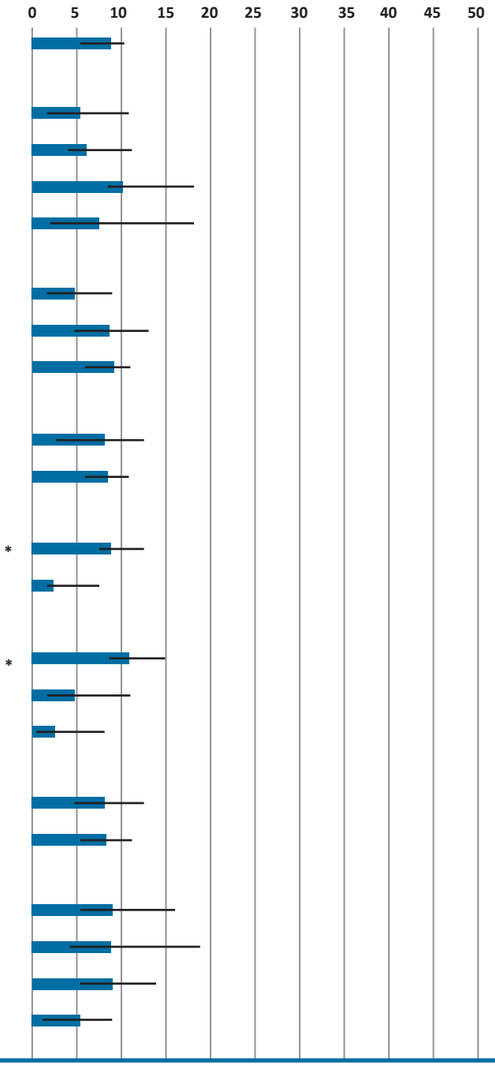


By maternal characteristic	Percent of mothers who smoked before they were pregnant		
2005-2011	**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=585	**16.8**	*14.0*	*20.0*
Age			
<20 years	**16.6**	*10.6*	*25.0*
20-24 years	**19.5**	*14.5*	*25.8*
25-34 years	**17.6**	*13.4*	*22.9*
35 or more years	~~**5.1**~~	~~*1.6*~~	~~*14.8*~~
Level of Education			
Less than High School	**21.0**	*15.5*	*28.0*
High School graduate	**15.1**	*11.1*	*20.1*
More than High School	**15.7**	*11.2*	*21.7*
Marital Status			
Married	**10.2**	*6.1*	*16.4*
Not married	**19.0**	*15.6*	*22.9*
Residence			
McKinley/San Juan Counties	**15.5**	*12.4*	*19.1*
Other NM Counties	**20.5**	*14.8*	*27.7*
Income as a Percent of Poverty			
100% or lower	**17.5**	*13.9*	*21.8*
101-185%	**15.1**	*9.3*	*23.4*
186% or higher	**17.6**	*11.3*	*26.3*
Enrolled in WIC during Pregnancy			
No	**20.2**	*14.9*	*26.7*
Yes	**15.5**	*12.3*	*19.3*
Payer of Prenatal Care			
Medicaid/not IHS	**13.5**	*8.6*	*20.5*
Medicaid with IHS	**17.7**	*11.5*	*26.1*
IHS/ not Medicaid	**19.5**	*14.5*	*25.7*
None	**12.9**	8.4	19.5

*** p < 0.05**

Approximately 17% (14% previous report) of Navajo mothers smoked before becoming pregnant. Navajo women who were not married were significantly more likely to smoke than were married women.

Physical abuse by husband or partner in the year before pregnancy



By maternal characteristic	Percent of mothers who were slapped, hit, kicked, punched, or choked		
2005-2011	**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=585	**8.2**	*6.1*	*10.9*
Age			
<20 years	~~**5.0**~~	~~*2.1*~~	~~*11.4*~~
20-24 years	**6.8**	*4.0*	*11.4*
25-34 years	**10.9**	*7.3*	*16.0*
35 or more years	~~**7.1**~~	~~*2.6*~~	~~*17.6*~~
Level of Education			
Less than High School	**5.1**	*2.7*	*9.6*
High School graduate	**9.0**	*5.7*	*13.9*
More than High School	**9.0**	*6.1*	*11.6*
Marital Status			
Married	**7.4**	*3.9*	*13.6*
Not married	**8.4**	*6.1*	*11.6*
Residence			
McKinley/San Juan Counties	**9.8**	*7.1*	*13.2*
Other NM Counties	**3.9**	*2.0*	*7.7*
Income as a Percent of Poverty			
100% or lower	**11.1**	*8.0*	*15.2*
101-185%	~~**5.8**~~	~~*2.8*~~	~~*11.8*~~
186% or higher	**3.3**	*1.2*	*8.5*
Enrolled in WIC during Pregnancy			
No	**8.3**	*5.2*	*13.1*
Yes	**8.1**	*5.6*	*11.6*
Payer of Prenatal Care			
Medicaid/not IHS	**9.4**	*5.3*	*16.2*
Medicaid with IHS	~~**9.6**~~	~~*4.6*~~	~~*18.9*~~
IHS/ not Medicaid	**9.6**	*6.1*	*14.8*
None	**5.0**	2.4	9.9

*** p < 0.05**

Approximately 17% (14% previous report) of Navajo mothers smoked before becoming pregnant. Navajo women who were not married were significantly more likely to smoke than were married women.

Prenatal

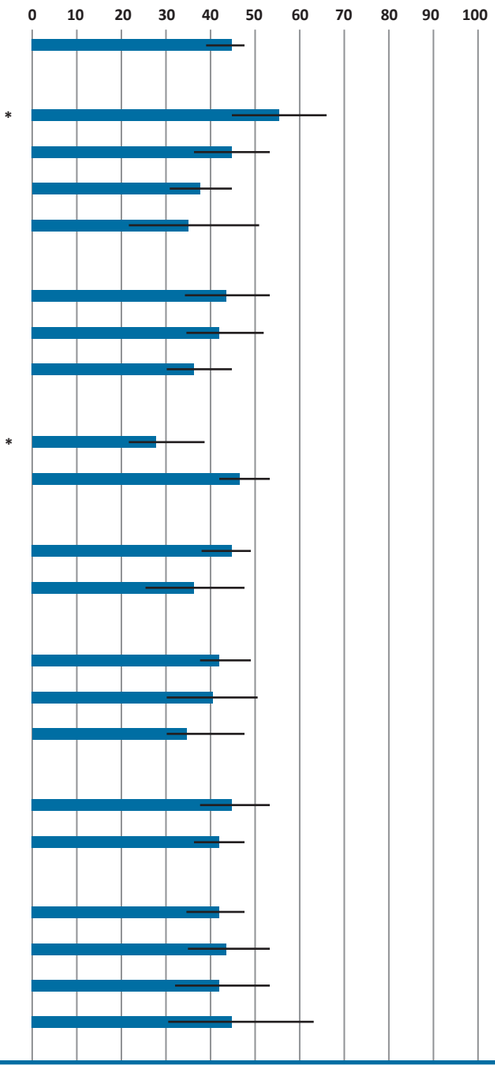
This section describes behaviors and experiences during pregnancy. The New Mexico Navajo mothers' data in this survey identified four areas of concern during pregnancy were late prenatal care, gestational diabetes, physical abuse, and food insufficiency.

Key Findings

- 43% of Navajo mothers did not receive prenatal care beginning in the first trimester, and only half (49%) received adequate or adequate-plus prenatal care. Younger Navajo mothers and those who were not married were less likely to receive timely prenatal care.
- 14% of Navajo mothers developed diabetes during pregnancy. This puts their health and the health of their baby at risk. Being overweight is a risk factor for gestational diabetes. Excess sugar in the blood causes the baby to put on too much weight which can result in problems during delivery, as well as weight problems throughout life. Mothers age 25 and above had the highest rates of gestational diabetes.
- 8% of Navajo mothers experience physical abuse during the prenatal period, reporting that they were slapped, hit, kicked, punched, or choked by their husband or partner during pregnancy.
- 20% of Navajo mothers reported that they did not always have enough food to eat during pregnancy. Navajo mothers with a lower level of education and low income mothers were more likely to not always have sufficient food to eat.

Late (after 1st trimester) or no prenatal care

By maternal characteristic	Percent of mothers with no prenatal care or with prenatal care starting after the first trimester (as calculated on the NM birth certificate			
2005-2011		**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=585		**43.1**	*38.8*	*47.4*
Age				
<20 years	*	~~**55.8**~~	~~*45.6*~~	~~*65.6*~~
20-24 years		~~**45.2**~~	~~*37.6*~~	~~*53.1*~~
25-34 years		**37.7**	*31.4*	*44.4*
35 or more years		~~**35.0**~~	~~*21.7*~~	~~*51.2*~~
Level of Education				
Less than High School		~~**43.4**~~	~~*35.6*~~	~~*51.6*~~
High School graduate		**46.4**	*39.7*	*53.3*
More than High School		~~**37.6**~~	~~*30.3*~~	~~*45.5*~~
Marital Status				
Married	*	**29.9**	*22.5*	*38.6*
Not married		**47.2**	*42.3*	*52.3*
Residence				
McKinley/San Juan Counties		**44.5**	*39.6*	*49.5*
Other NM Counties		**38.7**	*26.0*	*46.3*
Income as a Percent of Poverty				
100% or lower		**43.8**	*38.3*	*49.5*
101-185%		~~**40.8**~~	~~*30.9*~~	~~*51.6*~~
186% or higher		~~**35.5**~~	~~*30.4*~~	*47.7*
Enrolled in WIC during Pregnancy				
No		**45.1**	*37.4*	*53.1*
Yes		**42.2**	*37.1*	*47.5*
Payer of Prenatal Care				
Medicaid/not IHS		**42.9**	*36.3*	*49.8*
Medicaid with IHS		~~**43.2**~~	~~*34.8*~~	~~*52.0*~~
IHS/ not Medicaid		~~**42.7**~~	~~*33.8*~~	~~*52.0*~~
Other		**46.4**	30.4	63.3

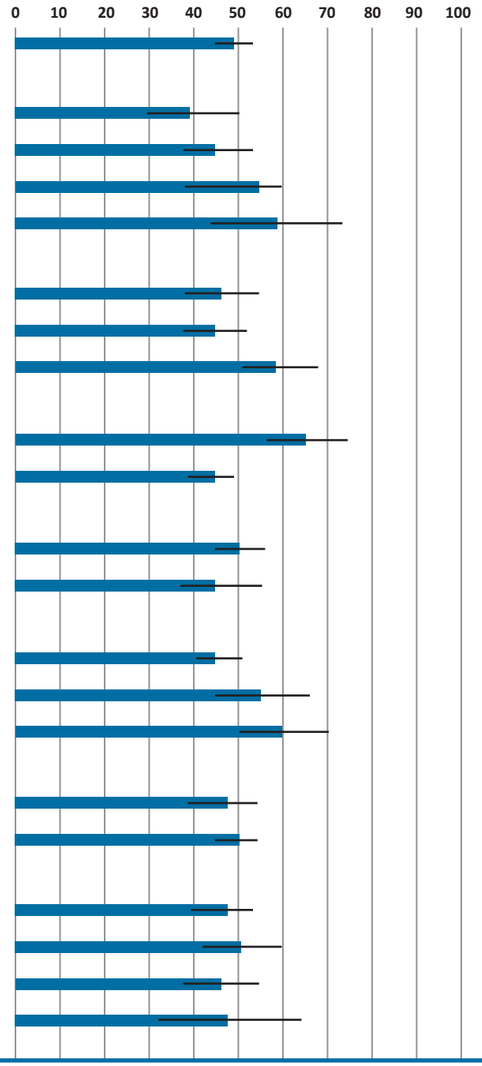


*** p < 0.05**

Approximately 43% (41% previous report) of Navajo mothers received prenatal care after the first trimester or received no prenatal care. Younger Navajo mothers and those who were not married were significantly more likely to obtain late or no prenatal care.

Adequate prenatal care (Kotelchuck Index)

By maternal characteristic		2005-2011 %	Lower	Upper
All NM Navajo Mothers (n=585		49.4	45.0	53.7
Age				
<20 years		~~40.0~~	*~~30.3~~*	*~~50.5~~*
20-24 years		~~45.2~~	*~~37.7~~*	*~~52.9~~*
25-34 years		54.2	*47.5*	*60.7*
35 or more years		~~59.1~~	*~~43.2~~*	*~~73.3~~*
Level of Education				
Less than High School	*	~~46.0~~	*~~38.0~~*	*~~54.2~~*
High School graduate		44.6	*38.0*	*51.4*
More than High School		~~59.6~~	*~~51.7~~*	*~~67.0~~*
Marital Status				
Married	*	~~65.7~~	*~~57.2~~*	*~~73.3~~*
Not married		44.1	*39.2*	*49.1*
Residence				
McKinley/San Juan Counties		50.2	*45.2*	*55.1*
Other NM Counties		~~46.8~~	*~~38.1~~*	*~~55.6~~*
Income as a Percent of Poverty				
100% or lower	*	46.2	*40.7*	*51.9*
101-185%		~~56.4~~	*~~45.7~~*	*~~66.5~~*
186% or higher		~~60.9~~	*~~50.3~~*	*70.5*
Enrolled in WIC during Pregnancy				
No		~~47.6~~	*~~39.9~~*	*~~55.4~~*
Yes		50.3	*45.1*	*55.6*
Payer of Prenatal Care				
Medicaid/not IHS		47.5	*40.7*	*54.3*
Medicaid with IHS		~~51.5~~	*~~42.9~~*	*~~60.0~~*
IHS/ not Medicaid		~~46.3~~	*~~37.3~~*	*~~55.6~~*
Other		~~47.9~~	*~~31.7~~*	*~~64.7~~*

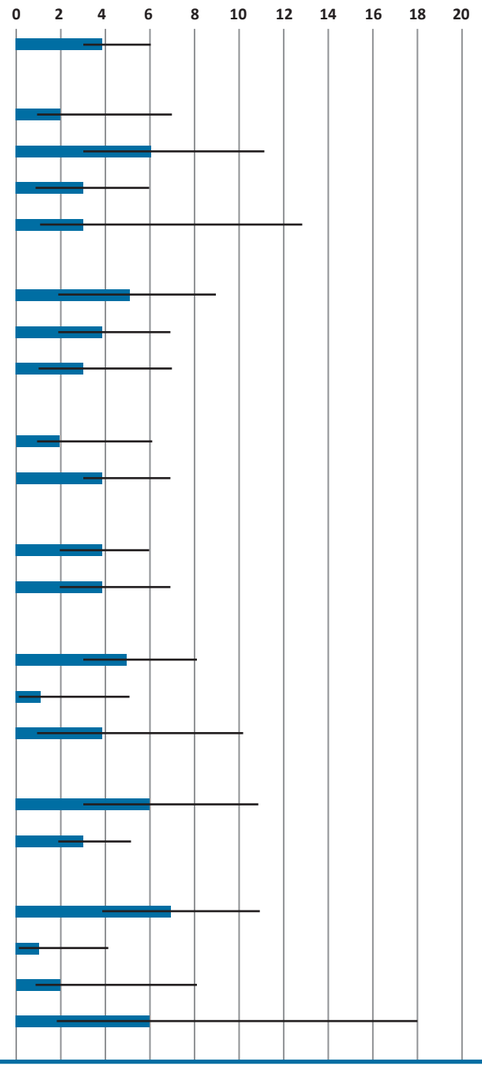


* p < 0.05

Approximately 50% (52% previous report) of Navajo mothers received adequate or adequate-plus prenatal care according to the Kotelchuck Index, which is a ratio of actual to recommended number of visits based upon the infant's gestational age at delivery (see definition of factors on page 12). Navajo mothers with education beyond high school, married women, and those with a higher level of income were statistically significantly more likely to receive adequate/adequate-plus prenatal care.

Alcohol use in last trimester of pregnancy

By maternal characteristic		2005-2011 %	Lower	Upper
All NM Navajo Mothers (n=590)		4.3	3.0	6.2
Age				
<20 years		~~2.7~~	*~~0.9~~*	*~~7.8~~*
20-24 years		6.5	*3.7*	*11.1*
25-34 years		3.6	*2.0*	*6.6*
35 or more years		~~3.6~~	*~~0.9~~*	*~~13.4~~*
Level of Education				
Less than High School		5.3	*2.9*	*9.5*
High School graduate		4.3	*2.4*	*7.8*
More than High School		3.5	*1.7*	*7.3*
Marital Status				
Married		2.6	*1.0*	*6.6*
Not married		4.9	*3.3*	*7.3*
Residence				
McKinley/San Juan Counties		4.4	*2.8*	*6.8*
Other NM Counties		4.1	*2.1*	*7.9*
Income as a Percent of Poverty				
100% or lower		5.4	*3.5*	*8.2*
101-185%		~~1.4~~	*~~0.4~~*	*~~5.3~~*
186% or higher		4.1	*1.6*	*10.2*
Enrolled in WIC during Pregnancy				
No		6.6	*3.8*	*11.3*
Yes		3.4	*2.1*	*5.6*
Payer of Prenatal Care				
Medicaid/not IHS	*	7.0	*4.4*	*11.1*
Medicaid with IHS		~~1.1~~	*~~0.3~~*	*~~4.2~~*
IHS/ not Medicaid		~~2.8~~	*~~0.9~~*	*~~8.1~~*
Other		~~6.7~~	*~~2.2~~*	*~~18.9~~*

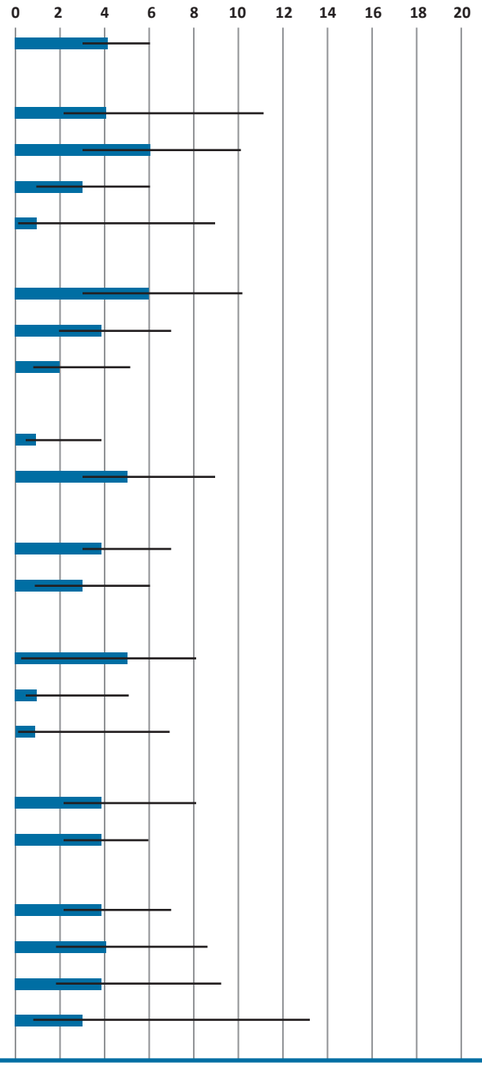


* p < 0.05

Four percent (5% previous report) of Navajo mothers said they consumed alcohol during the last 3 months of pregnancy. Navajo mothers receiving health care through I.H.S. were significantly less likely to report alcohol use in late pregnancy.

Cigarette smoking in the last trimester of pregnancy

By maternal characteristic	2005-2011	%	Lower	Upper
All NM Navajo Mothers (n=585		**4.3**	*3.0*	*6.1*
Age				
<20 years		**4.8**	*2.0*	*11.2*
20-24 years		**6.1**	*3.6*	*10.1*
25-34 years		**3.4**	*1.7*	*6.4*
35 or more years		**~~1.5~~**	*~~0.2~~*	*~~9.6~~*
Level of Education				
Less than High School		**6.1**	*3.3*	*10.9*
High School graduate		**4.4**	*2.5*	*7.5*
More than High School		**2.6**	*1.2*	*5.6*
Marital Status				
Married	*	**~~1.5~~**	*~~0.5~~*	*~~4.5~~*
Not married		**5.2**	*3.5*	*7.6*
Residence				
McKinley/San Juan Counties		**4.7**	*3.2*	*7.0*
Other NM Counties		**3.1**	*1.3*	*6.9*
Income as a Percent of Poverty				
100% or lower	*	**5.7**	*3.8*	*8.6*
101-185%		**~~1.5~~**	*~~0.4~~*	*~~5.7~~*
186% or higher		**~~1.2~~**	*~~0.2~~*	*~~7.5~~*
Enrolled in WIC during Pregnancy				
No		**4.2**	*2.1*	*8.0*
Yes		**4.4**	*2.8*	*6.7*
Payer of Prenatal Care				
Medicaid/not IHS		**4.4**	*2.4*	*7.8*
Medicaid with IHS		**4.8**	*2.5*	*9.1*
IHS/ not Medicaid		**4.6**	*2.1*	*9.8*
Other		**3.6**	0.9	13.1

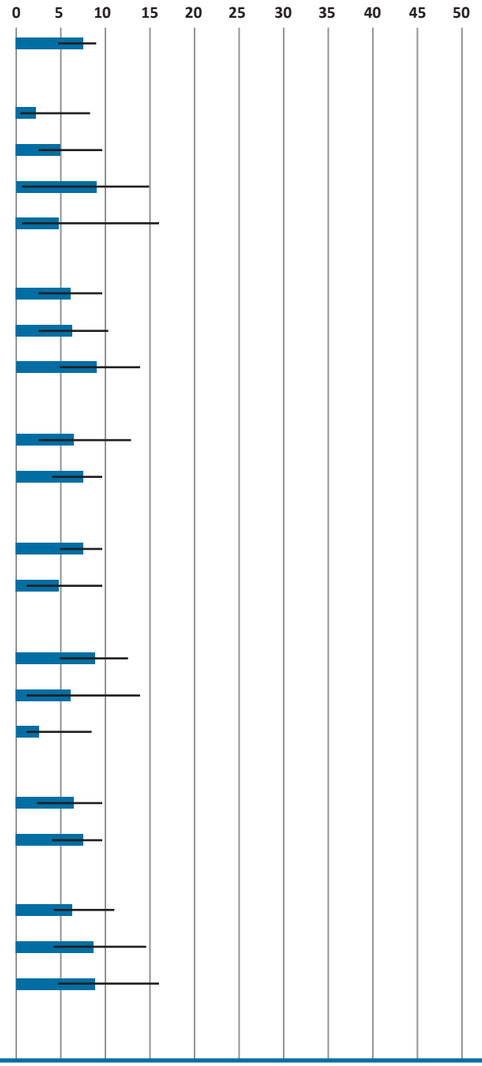


*** p < 0.05**

Approximately 4% (4% previous report) of Navajo mothers reported smoking cigarettes during their last trimester of pregnancy. Navajo mothers who were not married were significantly more likely to report cigarette smoking, as were women with lower income.

Physical abuse by husband or partner during pregnancy

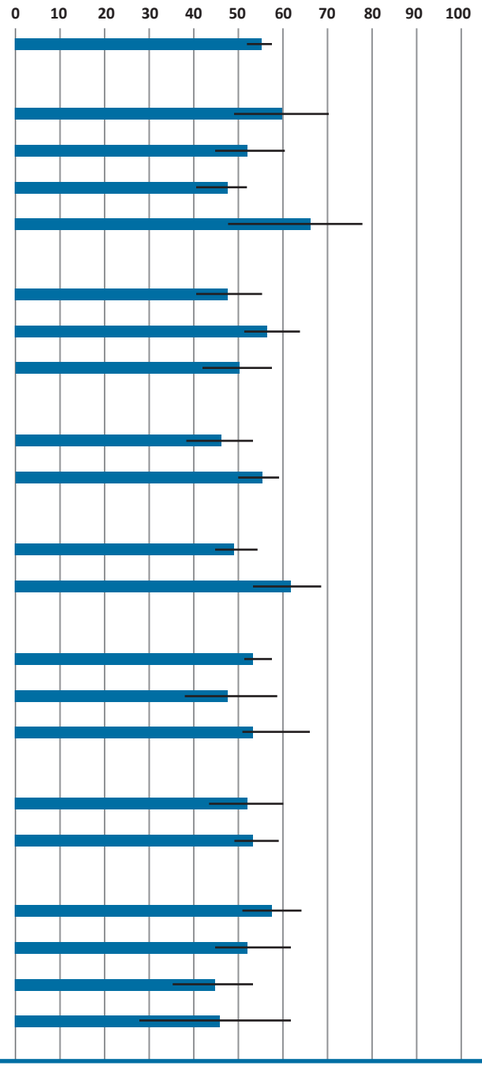
By maternal characteristic	2005-2011	%	Lower	Upper
All NM Navajo Mothers (n=590		**7.0**	*5.0*	*9.6*
Age				
<20 years		**~~2.7~~**	*~~0.9~~*	*~~8.0~~*
20-24 years		**5.9**	*3.3*	*10.3*
25-34 years		**9.9**	*6.3*	*15.1*
35 or more years		**~~5.8~~**	*~~1.9~~*	*~~16.5~~*
Level of Education				
Less than High School		**6.2**	*3.5*	*10.9*
High School graduate		**6.1**	*3.3*	*10.9*
More than High School		**9.0**	*5.4*	*14.7*
Marital Status				
Married		**6.9**	*3.5*	*13.3*
Not married		**7.0**	*4.8*	*10.0*
Residence				
McKinley/San Juan Counties		**7.5**	*5.2*	*10.8*
Other NM Counties		**5.3**	*2.7*	*10.2*
Income as a Percent of Poverty				
100% or lower		**8.5**	*5.8*	*12.3*
101-185%		**~~6.5~~**	*~~2.8~~*	*~~14.1~~*
186% or higher		**3.2**	*1.2*	*8.2*
Enrolled in WIC during Pregnancy				
No		**6.0**	*3.4*	*10.4*
Yes		**7.3**	*4.8*	*10.7*
Payer of Prenatal Care				
Medicaid/not IHS		**6.7**	*4.0*	*11.1*
Medicaid with IHS		**8.6**	*4.7*	*15.2*
IHS/ not Medicaid		**9.2**	*5.0*	*16.2*
Other		**~~0.0~~**	~~0.0~~	~~0.0~~



Approximately 7% (11% previous report) of Navajo mothers reported that they were physically abused by their husband or partner during pregnancy. A higher proportion of low income Navajo mothers experienced physical abuse compared with higher income mothers, although income was not found to be statistically significant.

Oral health discussion during pregnancy

By maternal characteristic	Percent of mothers who recalled that a health care worker talked about care of teeth and gums during pregnancy			
2005-2011		%	*Lower*	*Upper*
All NM Navajo Mothers (n=586)		**52.8**	*48.5*	*57.0*
Age				
<20 years		~~**60.5**~~	~~*49.9*~~	~~*70.2*~~
20-24 years		**53.1**	*45.7*	*60.4*
25-34 years		**47.1**	*40.7*	*53.6*
35 or more years		~~**62.6**~~	~~*47.7*~~	~~*75.4*~~
Level of Education				
Less than High School		~~**48.2**~~	~~*40.3*~~	~~*56.2*~~
High School graduate		**57.4**	*50.6*	*63.9*
More than High School		**50.1**	*42.6*	*57.5*
Marital Status				
Married		~~**46.1**~~	~~*38.0*~~	~~*54.5*~~
Not married		**54.9**	*50.0*	*59.8*
Residence				
McKinley/San Juan Counties	*	**49.5**	*44.6*	*54.4*
Other NM Counties		~~**61.9**~~	~~*53.5*~~	~~*69.7*~~
Income as a Percent of Poverty				
100% or lower		**53.0**	*47.5*	*58.4*
101-185%		~~**48.7**~~	~~*38.5*~~	~~*58.9*~~
186% or higher		~~**54.7**~~	~~*44.6*~~	~~*64.3*~~
Enrolled in WIC during Pregnancy				
No		~~**52.5**~~	~~*44.7*~~	~~*60.2*~~
Yes		**52.6**	*47.4*	*57.6*
Payer of Prenatal Care				
Medicaid/not IHS		**58.0**	*51.4*	*64.4*
Medicaid with IHS		~~**53.7**~~	~~*45.4*~~	~~*61.7*~~
IHS/ not Medicaid		~~**44.5**~~	~~*35.7*~~	~~*53.8*~~
Other		~~**45.6**~~	~~*29.7*~~	~~*62.5*~~

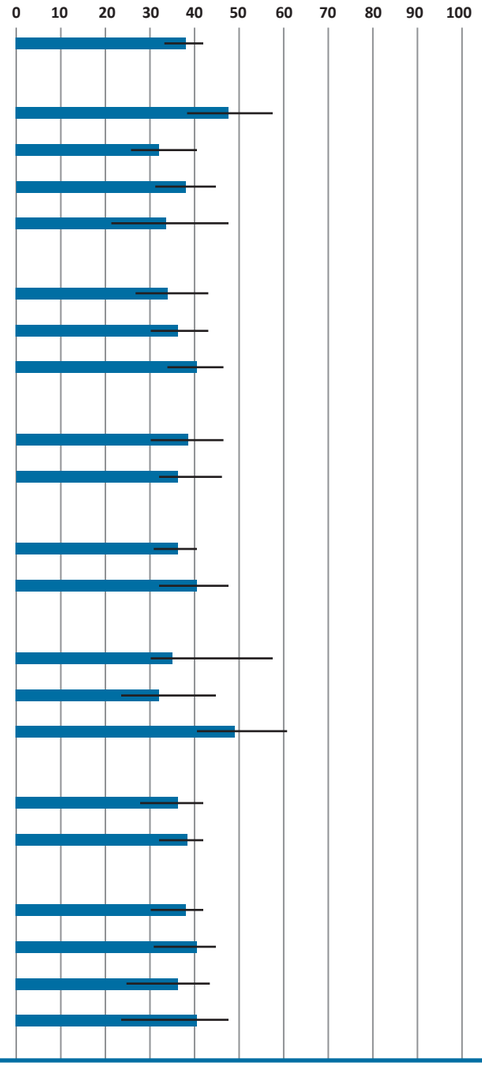


* p < 0.05

Approximately 53% (29% previous report) of Navajo mothers recalled discussion with a health care worker about how to care for their teeth and gums during pregnancy. Navajo mothers not living in McKinley or San Juan counties were statistically significantly more likely to report such discussion.

Oral health service during pregnancy

By maternal characteristic	Percent of mothers who went to a dentist or dental clinic during pregnancy			
2005-2011		%	*Lower*	*Upper*
All NM Navajo Mothers (n=589)		**37.3**	*33.2*	*41.5*
Age				
<20 years		~~**47.9**~~	~~*37.8*~~	~~*58.3*~~
20-24 years		**32.0**	*25.2*	*39.7*
25-34 years		**37.8**	*31.8*	*44.2*
35 or more years		~~**33.0**~~	~~*21.2*~~	~~*47.3*~~
Level of Education				
Less than High School		~~**34.6**~~	~~*27.4*~~	~~*42.6*~~
High School graduate		**36.5**	*30.1*	*43.3*
More than High School		**40.2**	*33.1*	*47.7*
Marital Status				
Married		~~**38.3**~~	~~*30.6*~~	~~*46.6*~~
Not married		**36.9**	*32.3*	*41.8*
Residence				
McKinley/San Juan Counties		**36.2**	*31.6*	*40.8*
Other NM Counties		~~**40.2**~~	~~*32.2*~~	~~*48.6*~~
Income as a Percent of Poverty				
100% or lower	*	**35.4**	*30.3*	*58.4*
101-185%		~~**33.9**~~	~~*24.8*~~	~~*44.5*~~
186% or higher		~~**51.0**~~	~~*41.0*~~	~~*61.0*~~
Enrolled in WIC during Pregnancy				
No		**34.7**	*27.8*	*42.4*
Yes		**37.8**	*32.9*	*42.9*
Payer of Prenatal Care				
Medicaid/not IHS		**37.0**	*30.8*	*43.6*
Medicaid with IHS		~~**39.1**~~	~~*31.2*~~	~~*47.6*~~
IHS/ not Medicaid		~~**34.3**~~	~~*26.3*~~	~~*43.3*~~
Other		~~**41.1**~~	~~*25.9*~~	~~*58.2*~~



* p < 0.05

Over a third, 37% (24% previous report), of Navajo mothers reported that they went to a dentist or dental clinic during pregnancy. Navajo mothers with a higher income level were significantly more likely to visit a dentist. The table and the previous table show marked improvement over time in dental care during pregnancy, but further education and access to dental services is needed.

WIC SERVICE DURING PREGNANCY

By maternal characteristic		Percent of mothers who received prenatal services from the Women, Infants and Children (WIC) program during pregnancy	%	Lower	Upper
2005-2011		0 10 20 30 40 50 60 70 80 90 100			
All NM Navajo Mothers (n=589)			**69.5**	*65.5*	*73.3*
Age					
<20 years	*		~~**73.7**~~	~~*64.2*~~	~~*81.4*~~
20-24 years			**77.6**	*71.0*	*83.1*
25-34 years			**64.2**	*57.7*	*70.2*
35 or more years			~~**59.6**~~	~~*44.0*~~	~~*73.5*~~
Level of Education					
Less than High School			**70.5**	*62.8*	*77.1*
High School graduate			**72.0**	*65.4*	*77.7*
More than High School			**64.8**	*57.2*	*71.8*
Marital Status					
Married			~~**63.6**~~	~~*55.1*~~	~~*71.3*~~
Not married			**71.5**	*66.8*	*75.7*
Residence					
McKinley/San Juan Counties			**69.6**	*64.8*	*73.9*
Other NM Counties			~~**69.5**~~	~~*61.2*~~	~~*76.8*~~
Income as a Percent of Poverty					
100% or lower	*		**75.3**	*70.2*	*79.8*
101-185%			~~**76.0**~~	~~*66.8*~~	~~*83.2*~~
186% or higher			~~**42.4**~~	~~*32.9*~~	~~*52.4*~~
Enrolled in WIC during Pregnancy					
No			**0.0**		
Yes			**100.0**		
Payer of Prenatal Care					
Medicaid/not IHS	*		**78.3**	*72.5*	*83.1*
Medicaid with IHS			**78.8**	*70.8*	*85.0*
IHS/ not Medicaid			~~**60.0**~~	~~*50.6*~~	~~*68.7*~~
Other			~~**40.2**~~	~~*25.5*~~	~~*56.8*~~

* p < 0.05

Most Navajo mothers 70 % (70% previous report) received prenatal WIC services. This table shows that younger Navajo mothers, those with low income levels, and those enrolled in Medicaid were more likely to receive WIC services; all three factors were statistically significant.

HOME VISITING SERVICES DURING PREGNANCY

By maternal characteristic		Percent of mothers who received prenatal home visiting services	%	Lower	Upper
2005-2011		0 5 10 15 20 25 30 35 40 45 50			
All NM Navajo Mothers (n=584)			**13.5**	*10.8*	*16.7*
Age					
<20 years	*		~~**23.6**~~	~~*15.8*~~	~~*33.7*~~
20-24 years			**11.3**	*7.3*	*16.9*
25-34 years			**11.7**	*8.2*	*16.3*
35 or more years			~~**9.5**~~	~~*4.0*~~	~~*21.0*~~
Level of Education					
Less than High School			**16.1**	*12.7*	*23.3*
High School graduate			**15.4**	*11.3*	*20.7*
More than High School			**8.9**	*5.6*	*13.9*
Marital Status					
Married			**14.1**	*9.3*	*20.8*
Not married			**13.3**	*10.3*	*17.0*
Residence					
McKinley/San Juan Counties	*		**16.1**	*12.7*	*20.0*
Other NM Counties			**6.3**	*3.4*	*11.5*
Income as a Percent of Poverty					
100% or lower			**15.1**	*11.6*	*19.3*
101-185%			**11.3**	*5.9*	*20.7*
186% or higher			**11.0**	*6.0*	*19.3*
Enrolled in WIC during Pregnancy					
No			**12.0**	*7.9*	*17.7*
Yes			**14.1**	*10.8*	*18.0*
Payer of Prenatal Care					
Medicaid/not IHS	*		**11.9**	*8.2*	*17.1*
Medicaid with IHS			**9.5**	*6.0*	*14.7*
IHS/ not Medicaid			~~**24.8**~~	~~*17.7*~~	~~*33.8*~~
Other			~~**9.1**~~	~~*2.9*~~	~~*25.1*~~

* p < 0.05

In this table, we see that 14% (7% previous report) of Navajo mothers had home visiting services during pregnancy. Navajo mothers who were younger, or lived in McKinley/San Juan counties, or received services through I.H.S. and were not enrolled in Medicaid were statistically significantly more likely to receive these visits.

Smoking cessation program during pregnancy

By maternal characteristic	Percent of mothers who participated in a smoking cessation class or support group during pregnancy	%	Lower	Upper
2005-2011	0 1 2 3 4 5 6 7 8 9 10			
All NM Navajo Mothers (n=569)		**1.8**	*0.9*	*3.4*
Age				
<20 years		~~**1.2**~~	~~*0.2*~~	~~*7.6*~~
20-24 years		~~**1.2**~~	~~*0.3*~~	~~*4.9*~~
25-34 years		**2.9**	*1.3*	*6.3*
35 or more years		~~**0.0**~~		
Level of Education				
Less than High School		**2.9**	*1.1*	*7.3*
High School graduate		~~**0.7**~~	~~*0.2*~~	~~*2.6*~~
More than High School		~~**2.3**~~	~~*0.7*~~	~~*6.9*~~
Marital Status				
Married		~~**1.3**~~	~~*0.3*~~	~~*5.0*~~
Not married		**1.9**	*0.9*	*4.0*
Residence				
McKinley/San Juan Counties		**1.7**	*0.8*	*3.6*
Other NM Counties		~~**1.9**~~	~~*0.5*~~	~~*7.3*~~
Income as a Percent of Poverty				
100% or lower		**2.4**	*1.2*	*5.0*
101-185%		**0.0**		
186% or higher		~~**2.0**~~	~~*0.5*~~	~~*7.6*~~
Enrolled in WIC during Pregnancy				
No		~~**1.1**~~	~~*0.3*~~	~~*4.3*~~
Yes		**1.8**	*0.8*	*4.0*
Payer of Prenatal Care				
Medicaid/not IHS		**2.3**	*0.9*	*6.0*
Medicaid with IHS		**2.6**	*1.0*	*6.8*
IHS/ not Medicaid		~~**0.7**~~	~~*0.1*~~	~~*4.7*~~
Other		**0.0**		

Approximately 2% (1% previous report) of Navajo mothers participated in a prenatal smoking cessation class or support group during pregnancy. Seventeen percent of Navajo mothers reported smoking before pregnancy (see page 32, Preconception Tobacco Use). These data may indicate an unmet need for smoking cessation support services among pregnant Navajo mothers.

Families first services during pregnancy

By maternal characteristic	Among Medicaid-eligible mothers, percent who received services from the Families FIRST program		%	Lower	Upper
2005-2011	0 2 4 6 8 10 12 14 16 18 20				
All NM Navajo Mothers (n=449)			**5.4**	*3.6*	*8.0*
Age					
<20 years			**5.1**	*1.9*	*12.7*
20-24 years			**2.2**	*0.7*	*6.7*
25-34 years			**7.4**	*4.2*	*12.7*
35 or more years			~~**7.5**~~	~~*2.4*~~	~~*21.3*~~
Level of Education					
Less than High School			**5.2**	*2.5*	*10.6*
High School graduate			**5.7**	*3.2*	*9.8*
More than High School			~~**4.6**~~	~~*1.7*~~	~~*12.3*~~
Marital Status					
Married			~~**4.9**~~	~~*1.7*~~	~~*13.2*~~
Not married			**5.5**	*3.6*	*8.5*
Residence					
McKinley/San Juan Counties		*	**3.8**	*2.1*	*6.6*
Other NM Counties			**9.3**	*5.3*	*16.0*
Income as a Percent of Poverty					
100% or lower		*	**6.5**	*4.2*	*10.1*
101-185%			~~**4.0**~~	~~*1.3*~~	~~*11.8*~~
186% or higher			~~**2.7**~~	~~*0.4*~~	~~*16.1*~~
Enrolled in WIC during Pregnancy					
No			**6.0**	*2.8*	*12.2*
Yes			**4.9**	*3.0*	*8.0*
Payer of Prenatal Care					
Medicaid/not IHS			**6.8**	*4.1*	*11.1*
Medicaid with IHS			**3.3**	*1.4*	*7.8*
IHS/ not Medicaid			~~**7.5**~~	~~*1.9*~~	~~*25.0*~~
Other			~~**7.9**~~	~~*1.2*~~	~~*38.8*~~

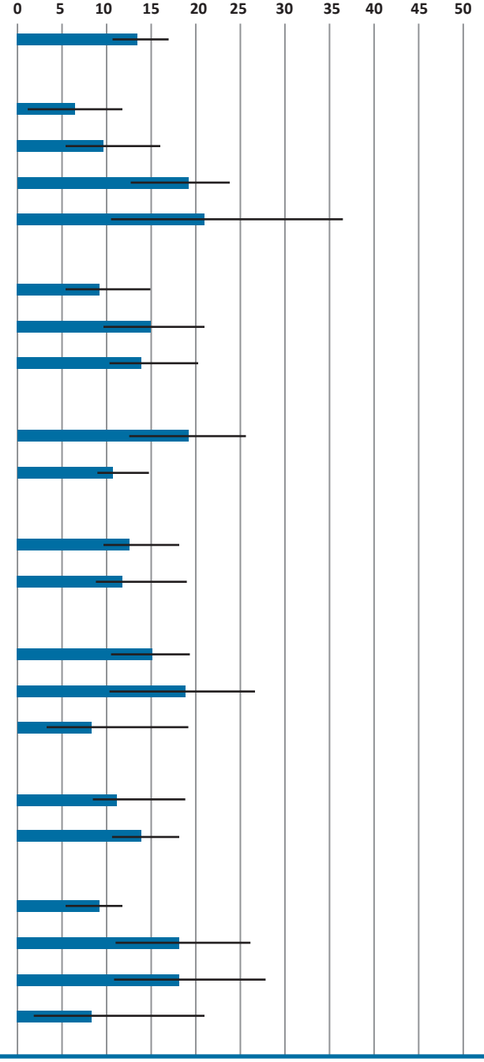
*** p < 0.05**

Five percent (5% previous report) of Navajo mothers enrolled in Medicaid participated in Families FIRST case management (a New Mexico state program for Medicaid-eligible pregnant women and their families) during pregnancy.

Women residing outside of McKinley or San Juan counties were significantly more likely to receive Families FIRST services, as were women under 100% of the federal poverty level.

Gestational diabetes

By maternal characteristic	2005-2011	%	Lower	Upper
	Percent of mothers who developed diabetes during pregnancy			
All NM Navajo Mothers (n=584)		13.6	10.9	16.9
Age				
<20 years	*	5.5	2.5	12.0
20-24 years		9.9	6.2	15.3
25-34 years		18.3	13.6	24.0
35 or more years		~~21.0~~	~~11.1~~	~~36.1~~
Level of Education				
Less than High School		9.6	5.9	15.2
High School graduate		15.3	10.7	21.3
More than High School		14.6	10.1	20.6
Marital Status				
Married	*	19.0	13.0	26.8
Not married		11.9	9.0	15.5
Residence				
McKinley/San Juan Counties		13.9	10.7	17.8
Other NM Counties		12.9	8.3	19.5
Income as a Percent of Poverty				
100% or lower		15.2	11.5	19.8
101-185%		~~17.7~~	~~11.2~~	~~26.7~~
186% or higher		7.2	3.6	19.5
Enrolled in WIC during Pregnancy				
No		12.6	8.4	18.4
Yes		14.1	10.8	18.3
Payer of Prenatal Care				
Medicaid/not IHS	*	9.3	6.4	13.5
Medicaid with IHS		18.5	12.7	26.1
IHS/ not Medicaid		18.3	11.6	27.7
Other		~~7.4~~	~~2.4~~	~~21.2~~

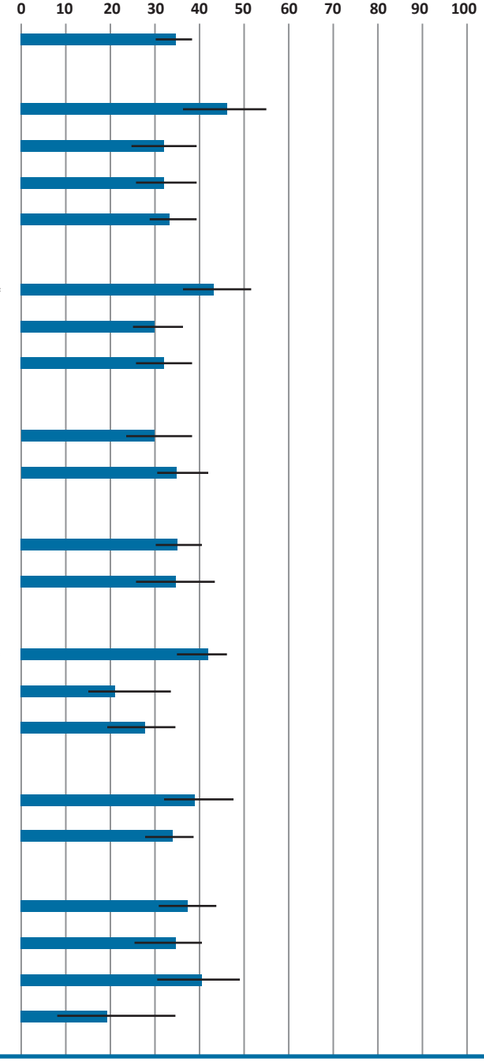


* p < 0.05

Fourteen percent of Navajo mothers developed diabetes during pregnancy (also called gestational diabetes). Older mothers were significantly more likely to develop gestational diabetes, as were married mothers, and those receiving prenatal care through I.H.S.

Emotional stress during pregnancy

By maternal characteristic	2005-2011	%	Lower	Upper
	Percent of mothers who experience emotional stress during pregnancy			
All NM Navajo Mothers (n=591)		34.9	30.9	39.1
Age				
<20 years		~~46.2~~	~~36.3~~	~~56.4~~
20-24 years		31.9	25.4	39.2
25-34 years		32.7	26.9	39.2
35 or more years		~~32.4~~	~~19.1~~	~~49.2~~
Level of Education				
Less than High School	*	~~43.7~~	~~35.9~~	~~51.7~~
High School graduate		30.0	24.0	36.7
More than High School		32.1	25.5	39.7
Marital Status				
Married		~~30.7~~	~~23.4~~	~~39.2~~
Not married		36.2	31.6	41.1
Residence				
McKinley/San Juan Counties		35.1	30.5	40.1
Other NM Counties		~~34.1~~	26.6	~~42.4~~
Income as a Percent of Poverty				
100% or lower	*	41.2	35.8	46.8
101-185%		~~22.9~~	~~15.5~~	~~32.6~~
186% or higher		~~27.0~~	~~19.0~~	~~36.7~~
Enrolled in WIC during Pregnancy				
No		~~39.7~~	~~32.3~~	~~47.6~~
Yes		33.0	28.3	38.0
Payer of Prenatal Care				
Medicaid/not IHS		38.0	31.7	44.7
Medicaid with IHS		~~33.1~~	~~25.7~~	~~41.6~~
IHS/ not Medicaid		~~40.6~~	~~31.8~~	~~50.1~~
Other		~~19.2~~	~~9.7~~	~~34.5~~

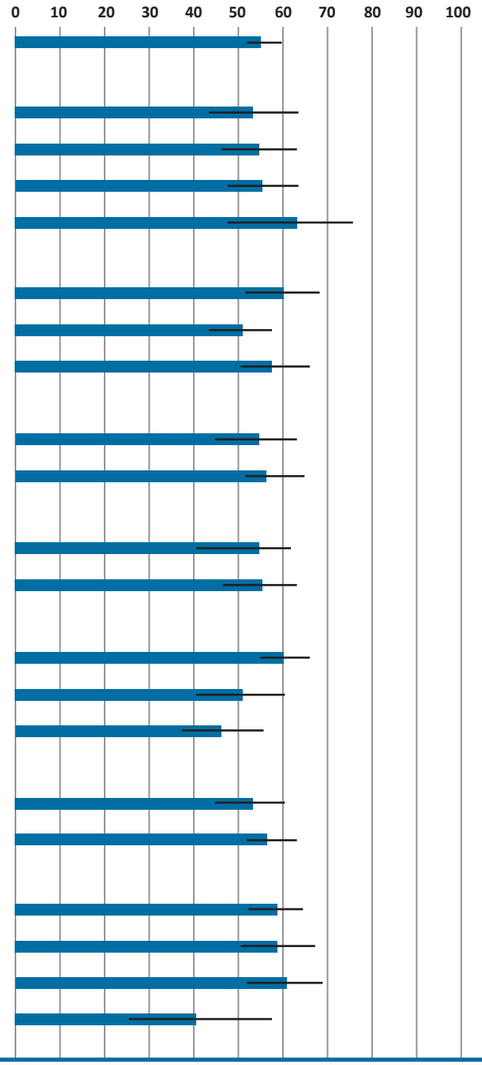


* p < 0.05

Over one-third of Navajo mothers experienced emotional stress during pregnancy. In the PRAMS survey instrument, the mothers are asked of whether a close family member was very sick and had to go into the hospital, or someone very close to her died. Those with less than a high school education and those with incomes below the federal poverty level were significantly more likely to experience emotional stress during pregnancy.

Financial stress during pregnancy

By maternal characteristic	2005-2011	%	Lower	Upper
All NM Navajo Mothers (n=593)		56.2	52.0	60.4
Age				
<20 years		53.7	43.5	63.6
20-24 years		54.7	47.2	62.1
25-34 years		56.9	50.4	63.1
35 or more years		~~63.6~~	~~48.9~~	~~76.2~~
Level of Education				
Less than High School		~~60.8~~	~~52.9~~	~~68.2~~
High School graduate		51.2	44.5	58.0
More than High School		58.1	50.6	65.3
Marital Status				
Married		~~54.0~~	~~45.7~~	~~62.0~~
Not married		57.0	52.0	65.3
Residence				
McKinley/San Juan Counties		~~56.4~~	~~51.5~~	~~61.2~~
Other NM Counties		~~55.8~~	~~47.3~~	~~63.9~~
Income as a Percent of Poverty				
100% or lower	*	60.5	55.1	65.7
101-185%		~~51.1~~	~~40.9~~	~~61.3~~
186% or higher		~~47.0~~	~~37.1~~	~~57.0~~
Enrolled in WIC during Pregnancy				
No		~~53.0~~	~~45.3~~	~~60.6~~
Yes		57.7	52.6	62.6
Payer of Prenatal Care				
Medicaid/not IHS		59.3	52.7	65.6
Medicaid with IHS		~~59.2~~	~~50.8~~	~~67.2~~
IHS/ not Medicaid		~~61.5~~	~~52.4~~	~~69.9~~
Other		~~40.3~~	~~25.5~~	~~57.2~~

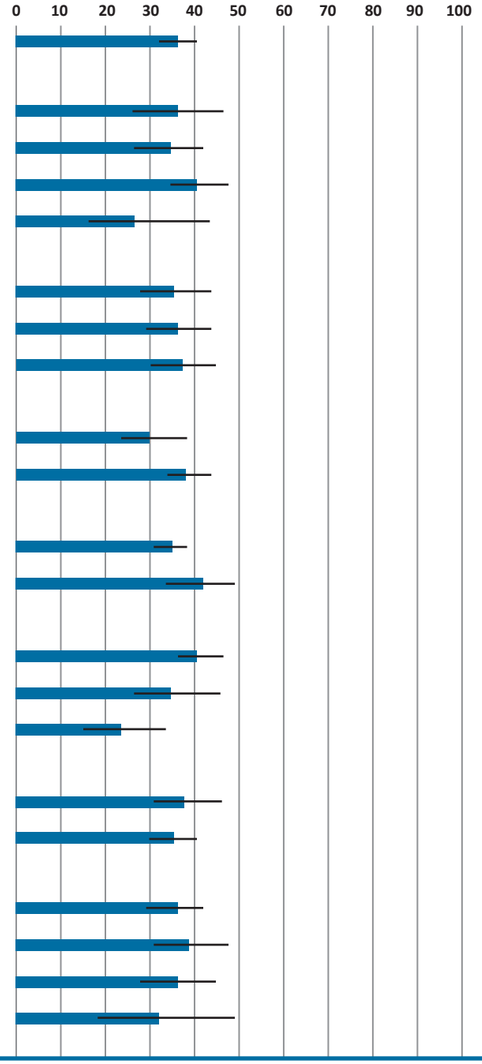


* p < 0.05

Over one-third of Navajo mothers experienced emotional stress during pregnancy. In the PRAMS survey instrument, the mothers are asked of whether a close family member was very sick and had to go into the hospital, or someone very close to her died. Those with less than a high school education and those with incomes below the federal poverty level were significantly more likely to experience emotional stress during pregnancy.

Partner-related stress during pregnancy

By maternal characteristic	2005-2011	%	Lower	Upper
All NM Navajo Mothers (n=592)		36.6	32.6	40.8
Age				
<20 years		~~36.1~~	~~27.1~~	~~46.2~~
20-24 years		34.2	27.5	41.5
25-34 years		40.8	34.6	47.3
35 or more years		~~27.7~~	~~15.3~~	~~44.8~~
Level of Education				
Less than High School		~~35.3~~	~~28.1~~	~~43.2~~
High School graduate		36.2	29.9	43.1
More than High School		37.6	30.6	45.2
Marital Status				
Married		~~30.0~~	~~23.0~~	~~38.1~~
Not married		38.7	34.0	43.7
Residence				
McKinley/San Juan Counties		35.0	30.4	39.8
Other NM Counties		~~41.1~~	~~33.0~~	~~49.6~~
Income as a Percent of Poverty				
100% or lower	*	41.8	36.4	47.4
101-185%		~~35.0~~	~~26.1~~	~~45.1~~
186% or higher		~~23.1~~	~~15.8~~	~~32.4~~
Enrolled in WIC during Pregnancy				
No		~~38.4~~	~~31.0~~	~~46.3~~
Yes		35.6	30.8	40.6
Payer of Prenatal Care				
Medicaid/not IHS		35.9	29.8	42.6
Medicaid with IHS		~~39.3~~	~~31.4~~	~~47.7~~
IHS/ not Medicaid		~~36.1~~	~~27.8~~	~~45.3~~
Other		~~32.5~~	~~19.3~~	~~49.2~~

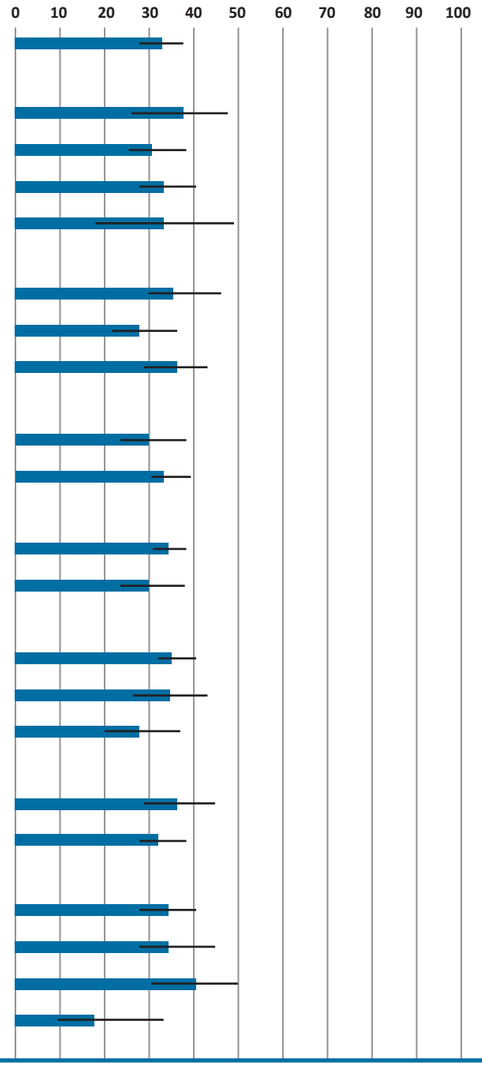


* p < 0.05

Over one-third (37%) of Navajo mothers experienced partner-related stress during pregnancy. This percentage was significantly lower than the 48% of Navajo mothers with partner-related stress in 2000-2004. Navajo mothers with lower income had significantly higher levels of partner-related stress.

Traumatic stress during pregnancy

By maternal characteristic	2005-2011	%	Lower	Upper
All NM Navajo Mothers (n=592)		33.7	29.8	38.0
Age				
<20 years		~~38.0~~	~~28.4~~	~~48.6~~
20-24 years		31.8	25.2	39.1
25-34 years		33.6	27.7	40.0
35 or more years		~~33.2~~	~~19.8~~	~~49.9~~
Level of Education				
Less than High School		~~37.9~~	~~30.3~~	~~46.0~~
High School graduate		28.6	22.7	35.4
More than High School		35.8	28.9	43.3
Marital Status				
Married		~~30.9~~	~~23.7~~	~~39.2~~
Not married		34.7	30.0	39.6
Residence				
McKinley/San Juan Counties		34.9	30.3	39.9
Other NM Counties		~~30.5~~	~~23.3~~	~~38.9~~
Income as a Percent of Poverty				
100% or lower		36.3	31.0	41.9
101-185%		~~33.2~~	~~24.1~~	~~43.6~~
186% or higher		~~28.0~~	~~20.1~~	~~37.4~~
Enrolled in WIC during Pregnancy				
No		~~36.7~~	~~29.4~~	~~44.6~~
Yes		32.5	27.8	37.6
Payer of Prenatal Care				
Medicaid/not IHS		33.4	27.3	40.2
Medicaid with IHS		~~34.7~~	~~27.2~~	~~43.1~~
IHS/ not Medicaid		~~40.6~~	~~31.8~~	~~50.1~~
Other		~~18.2~~	9.1	33.2

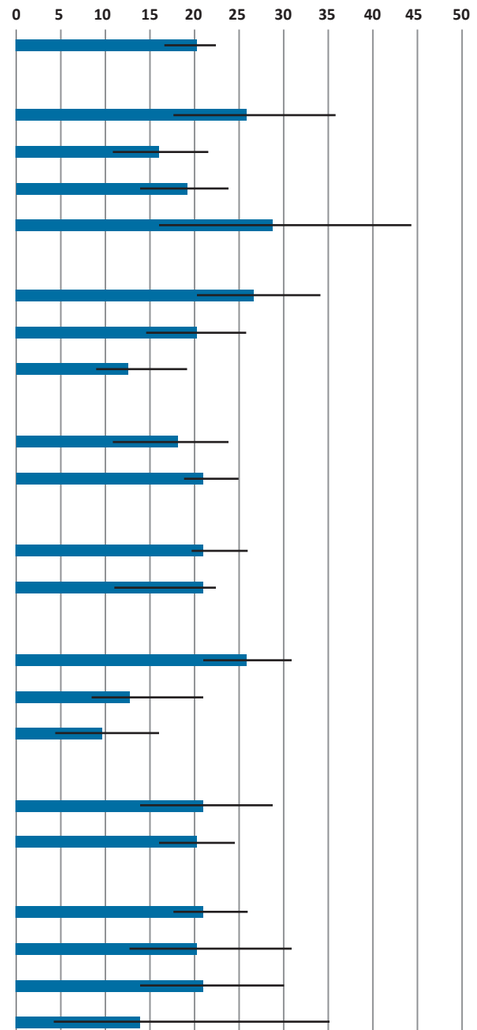


One-third (34%) of Navajo mothers experienced the traumatic stress of a loved one who had a problem with alcohol or drug abuse, a husband/partner was incarcerated, she was in a physical fight, or was homeless while pregnant.

This was significantly less than the 40% of Navajo mothers in the 2000-2004 report who experienced traumatic stress during pregnancy.

Food Insufficiency

By maternal characteristic	2005-2011	%	Lower	Upper
All NM Navajo Mothers (n=589)		20.4	17.2	24.1
Age				
<20 years		~~26.8~~	~~18.8~~	~~36.7~~
20-24 years		16.6	11.8	22.7
25-34 years		18.6	14.1	24.1
35 or more years		~~28.7~~	~~16.6~~	~~44.9~~
Level of Education				
Less than High School	*	27.1	20.6	34.7
High School graduate		20.2	15.2	26.4
More than High School		13.4	9.2	19.2
Marital Status				
Married		17.2	11.8	24.2
Not married		21.5	17.7	25.8
Residence				
McKinley/San Juan Counties		21.9	18.1	26.3
Other NM Counties		16.2	11.0	23.3
Income as a Percent of Poverty				
100% or lower	*	26.0	21.4	31.2
101-185%		13.6	8.4	21.3
186% or higher		9.1	4.9	16.3
Enrolled in WIC during Pregnancy				
No		21.0	14.9	28.8
Yes		20.0	16.4	24.2
Payer of Prenatal Care				
Medicaid/not IHS		21.8	17.5	26.7
Medicaid with IHS		~~20.7~~	~~13.1~~	~~31.2~~
IHS/ not Medicaid		~~21.6~~	~~14.7~~	~~30.6~~
Other		~~14.2~~	4.8	35.5



* p < 0.05

Twenty percent (26% in previous report) of Navajo mothers reported that their families did not have sufficient food in the 12 months before completing the survey, which would have included the time when she was pregnant. Navajo mothers with fewer years of education were significantly more likely to suffer from insufficient food, as were low income mothers.

Postpartum

After pregnancy the health and behavior of mothers remain important for both the mother and child. For instance, breastfeeding is the optimal way to nourish and nurture infants, especially during the first 6 months of life. Infants that are breastfed have a decreased risk of asthma, Type 1 and 2 diabetes, and obesity. In addition, mothers who breastfeed have a reduced risk of ovarian and breast cancers.

Other behaviors known to benefit mother and child are: 1) the use of contraception after pregnancy to help mothers prevent unintended pregnancy and space out pregnancy if women want to become pregnant in the future; 2) putting infants on their back to sleep in order to decrease the risk of SIDS (Sudden Infant Death Syndrome); and 3) the use of support services to educate and inform mothers of ways to improve their health and that of their child.

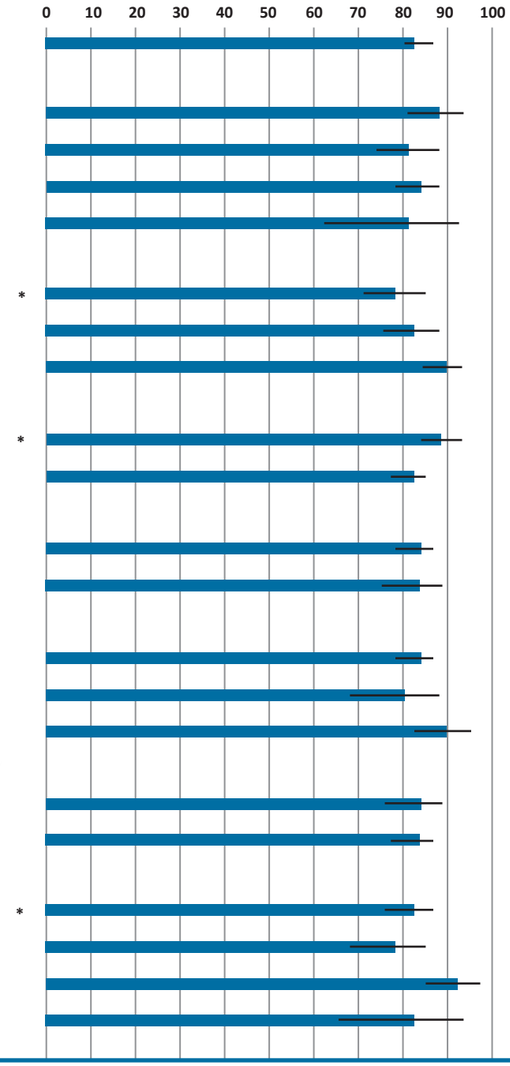
Behaviors and experiences assessed in the New Mexico PRAMS survey during postpartum were: breastfeeding, contraception use, infant sleep position, cigarette smoking, neonatal intensive care unit admission, postpartum depression, and support programs.

Key findings

- Breastfeeding initiation and duration are associated with education level and marital status. From 2005-2011, 60.8% of Navajo mothers reported that they breastfed for at least 2 months. Navajo mothers with less education and who were not married were less likely to engage in this healthy behavior.
- Neonatal intensive care unit admissions were higher (14%) for babies born to Navajo mothers residing elsewhere in New Mexico compared to those residing in McKinley or San Juan counties (8%).
- Postpartum depression was common among Navajo mothers, with 20% reporting symptoms of depression after delivery. The percentages were similar among all the subgroups, except those not enrolled in WIC during pregnancy had a significantly higher rate of 26%.
- After pregnancy, the use of support services varied for Navajo mothers. The most widely used programs were home visiting services at 34%, breastfeeding class at 11.5% or support group at 12%. The least used programs were smoking cessation programs at 0.7%, and Families FIRST case management at 4%.

Breastfeeding initiation

By maternal characteristic	Percent of mothers who ever breastfed their new baby			
2005-2011		**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=573)		**83.8**	*80.1*	*87.0*
Age				
<20 years		**88.9**	*81.0*	*93.8*
20-24 years		**81.4**	*73.9*	*87.2*
25-34 years		**84.0**	*78.6*	*88.3*
35 or more years		**~~81.3~~**	*~~62.0~~*	*~~92.1~~*
Level of Education				
Less than High School	*	**78.5**	*71.2*	*84.4*
High School graduate		**82.9**	*75.9*	*88.2*
More than High School		**90.3**	*84.8*	*93.9*
Marital Status				
Married	*	**89.6**	*83.6*	*93.6*
Not married		**82.0**	*77.4*	*85.8*
Residence				
McKinley/San Juan Counties		**83.9**	*79.5*	*87.5*
Other NM Counties		**83.6**	*75.9*	*89.2*
Income as a Percent of Poverty				
100% or lower		**83.3**	*78.4*	*87.3*
101-185%		**~~80.7~~**	*~~69.6~~*	*~~88.4~~*
186% or higher		**90.7**	*82.6*	*95.3*
Enrolled in WIC during Pregnancy				
No		**84.3**	*76.6*	*89.8*
Yes		**83.4**	*78.9*	*87.1*
Payer of Prenatal Care				
Medicaid/not IHS	*	**82.4**	*76.6*	*87.0*
Medicaid with IHS		**~~78.5~~**	*~~69.5~~*	*~~85.5~~*
IHS/ not Medicaid		**92.4**	*85.2*	*96.3*
Other		**~~82.5~~**	*~~65.4~~*	*~~92.2~~*

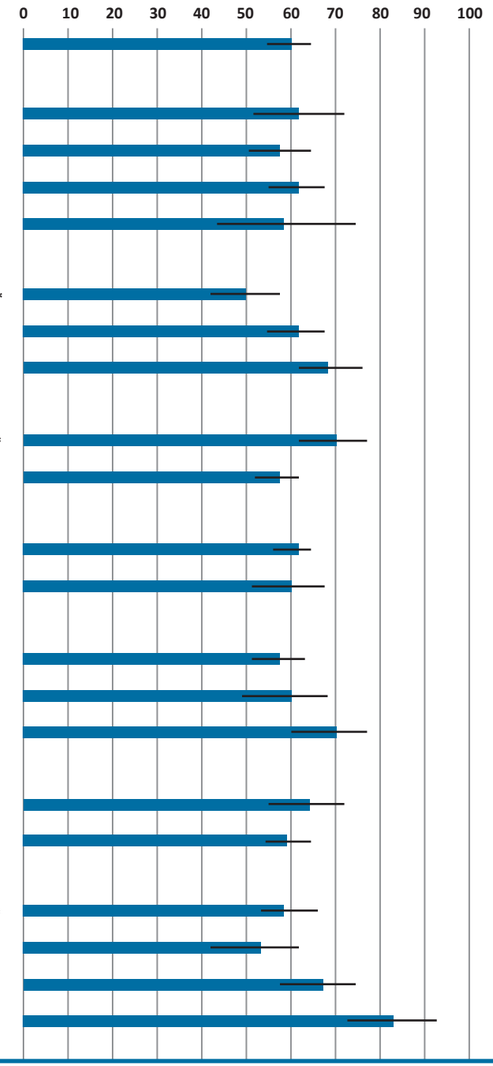


*** p < 0.05**

Approximately 84% (84% previous report) of Navajo mothers who ever breastfed their infants, exceeded the Healthy People 2020 target of at least 81.9% for breastfeeding initiation. Navajo mothers with a higher level of education, those who were married, and those who received prenatal care through I.H.S. without Medicaid coverage were statistically significantly more likely to have breastfed their baby at least once.

Breastfeeding duration

By maternal characteristic	Percent of mothers who breastfed for at least 2 months	%	Lower	Upper
2005-2011				
All NM Navajo Mothers (n=573)		60.8	56.5	65.0
Age				
<20 years		~~62.9~~	~~52.2~~	~~72.4~~
20-24 years		58.4	50.7	65.8
25-34 years		61.9	55.5	68.0
35 or more years		~~59.4~~	~~43.7~~	~~73.4~~
Level of Education				
Less than High School	*	~~50.7~~	~~42.6~~	~~58.7~~
High School graduate		61.8	54.7	68.4
More than High School		69.3	62.1	75.8
Marital Status				
Married	*	70.0	62.0	77.0
Not married		57.8	52.8	62.7
Residence				
McKinley/San Juan Counties		61.1	56.1	65.9
Other NM Counties		~~60.1~~	~~51.4~~	~~68.1~~
Income as a Percent of Poverty				
100% or lower		57.4	51.7	62.8
101-185%		~~60.1~~	~~49.4~~	~~69.9~~
186% or higher		~~70.1~~	~~60.2~~	~~78.4~~
Enrolled in WIC during Pregnancy				
No		~~64.4~~	~~56.3~~	~~71.8~~
Yes		59.4	54.2	64.4
Payer of Prenatal Care				
Medicaid/not IHS	*	59.5	53.7	65.1
Medicaid with IHS		~~52.0~~	~~41.9~~	~~62.0~~
IHS/ not Medicaid		~~67.7~~	~~58.1~~	~~76.0~~
Other		~~82.2~~	~~62.8~~	~~92.6~~

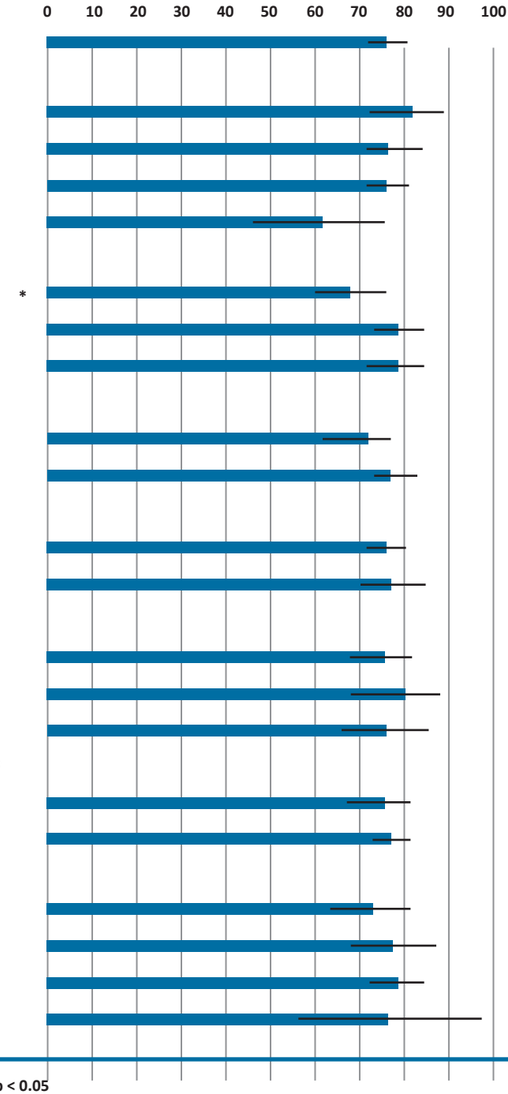


* p < 0.05

Approximately 61% (58% previous report) of Navajo mothers continued breastfeeding their infants for at least 2 months following initiation. The maternal characteristics that showed a significant effect are education, marital status, and payer of prenatal care. Navajo mothers with more education were significantly more likely to breastfeed their infants for at least 2 months, as were married Navajo mothers and those with no Medicaid coverage.

Postpartum contraception use

By maternal characteristic	Percent of women who were using any form of contraception at time of survey (2 to 6 months postpartum	%	Lower	Upper
2005-2011				
All NM Navajo Mothers (n=584)		76.6	72.7	80.1
Age				
<20 years		~~81.9~~	~~72.0~~	~~88.9~~
20-24 years		77.8	71.1	83.2
25-34 years		76.9	71.0	81.9
35 or more years		~~61.7~~	~~45.3~~	~~75.8~~
Level of Education				
Less than High School	*	68.7	60.8	75.7
High School graduate		79.6	73.0	84.8
More than High School		79.4	72.6	84.9
Marital Status				
Married		~~71.1~~	~~62.8~~	~~78.2~~
Not married		78.4	73.9	82.4
Residence				
McKinley/San Juan Counties		75.9	71.3	80.0
Other NM Counties		78.5	70.8	84.7
Income as a Percent of Poverty				
100% or lower		75.5	67.2	81.8
101-185%		~~80.9~~	~~71.2~~	~~87.9~~
186% or higher		~~76.3~~	~~66.2~~	~~84.1~~
Enrolled in WIC during Pregnancy				
No		75.2	67.2	81.8
Yes		77.3	72.7	81.3
Payer of Prenatal Care				
Medicaid/not IHS		~~73.0~~	~~64.6~~	~~80.0~~
Medicaid with IHS		~~78.6~~	~~67.3~~	~~86.8~~
IHS/ not Medicaid		79.4	72.8	84.8
Other		~~76.4~~	~~56.9~~	~~88.9~~

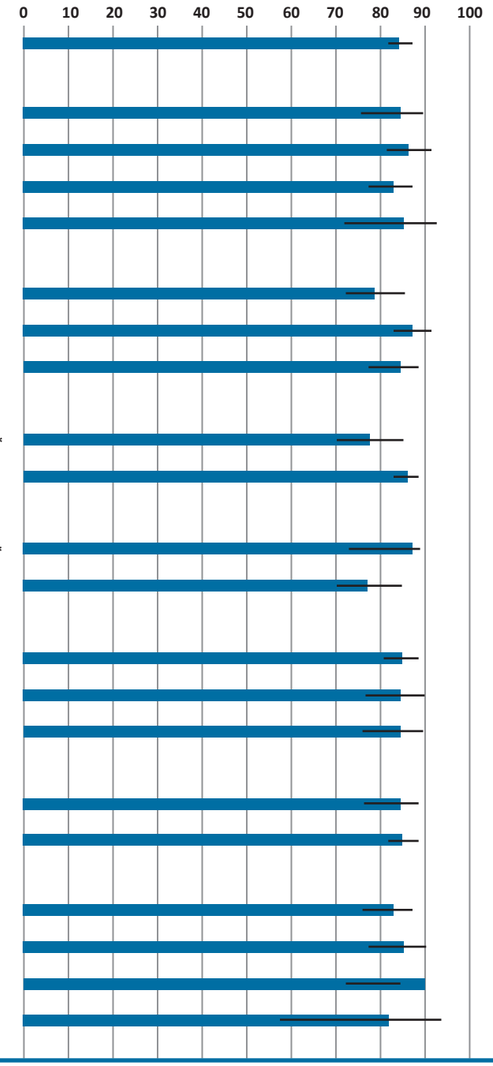


* p < 0.05

Approximately 77% (78% previous report) of Navajo mothers were using contraception 2 to 6 months after giving birth. The high percentage indicates that Navajo Mothers may be more careful about an immediate pregnancy after delivery. Use of contraception postpartum for these Navajo mothers was significantly lower among those with less than a high school education.

Infant sleep position

By maternal characteristic	Percent of mothers who placed their baby on their back to sleep			
2005-2011		%	*Lower*	*Upper*
All NM Navajo Mothers (n=576)		**84.8**	*81.6*	*87.5*
Age				
<20 years		**84.2**	*75.6*	*90.2*
20-24 years		**87.2**	*81.7*	*91.2*
25-34 years		**83.5**	*78.3*	*87.6*
35 or more years		~~**85.2**~~	~~*71.9*~~	~~*92.8*~~
Level of Education				
Less than High School		**79.7**	*72.8*	*85.2*
High School graduate		**88.5**	*83.9*	*91.9*
More than High School		**84.6**	*78.4*	*89.3*
Marital Status				
Married	*	**78.3**	*70.8*	*84.4*
Not married		**86.9**	*83.4*	*89.7*
Residence				
McKinley/San Juan Counties	*	**87.1**	*83.7*	*89.9*
Other NM Counties		**78.4**	*70.7*	*84.5*
Income as a Percent of Poverty				
100% or lower		**85.9**	*81.9*	*89.1*
101-185%		**84.6**	*76.2*	*90.4*
186% or higher		**83.9**	*75.1*	*90.0*
Enrolled in WIC during Pregnancy				
No		**84.0**	*77.7*	*88.7*
Yes		**85.3**	*81.5*	*88.5*
Payer of Prenatal Care				
Medicaid/not IHS		**83.1**	*78.6*	*86.8*
Medicaid with IHS		**85.5**	*78.0*	*90.8*
IHS/ not Medicaid		**90.0**	*82.7*	*84.4*
Other		~~**81.6**~~	~~58.6~~	~~93.3~~

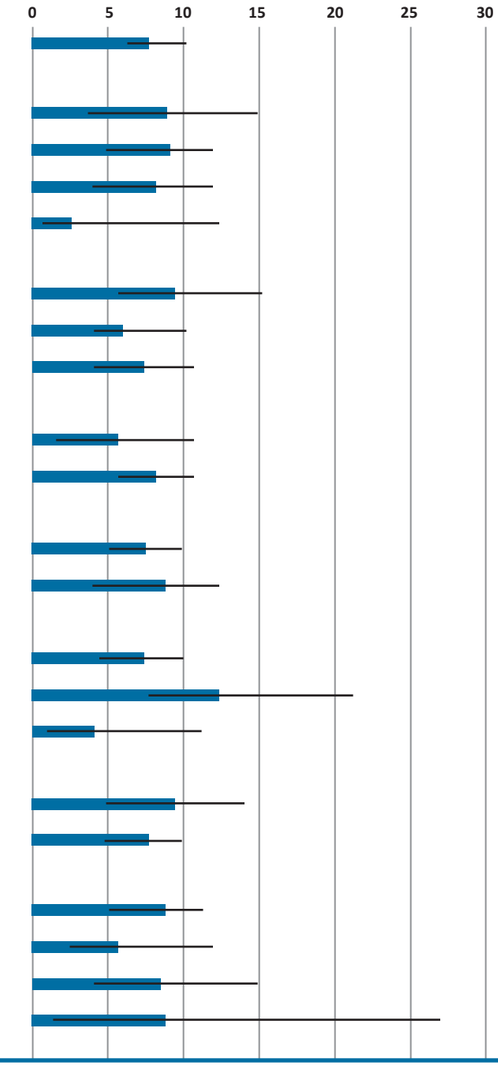


*** p < 0.05**

Most, 85% (78% previous report), of Navajo mothers placed their babies on their back to sleep which is the safest position for a sleeping infant, exceeding the Health People 2020 goal of 75.9%. Married Navajo women were significantly less likely than unmarried Navajo women to place their babies on their back to sleep. Women residing in McKinley or San Juan counties (in or near the Navajo Nation) were more likely to place their babies on their back than women residing in other regions of the state of New Mexico.

Cigarette smoking after delivery

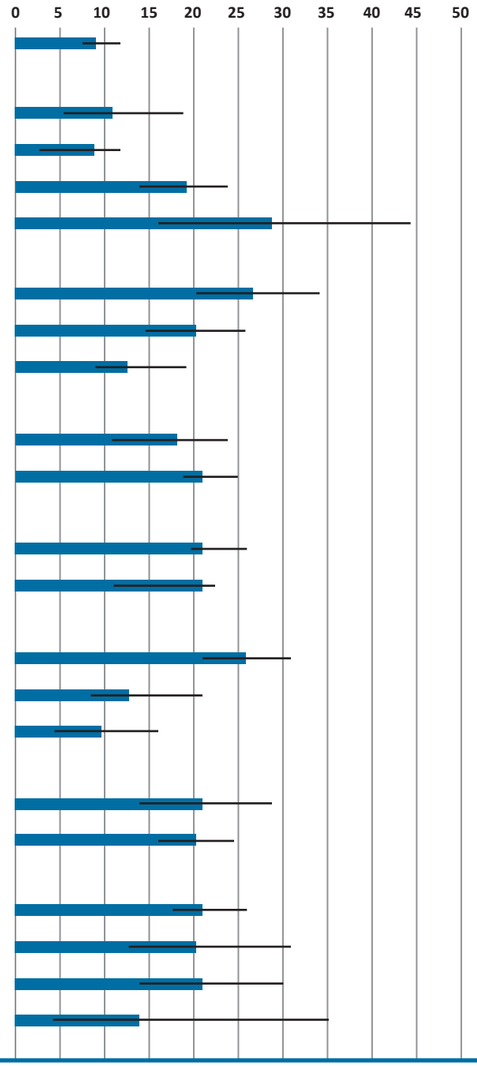
By maternal characteristic	Percent of mothers who were currently smoking cigarettes		
2005-2011	%	*Lower*	*Upper*
All NM Navajo Mothers (n=586)	**7.7**	*5.8*	*10.1*
Age			
<20 years	**8.6**	*4.6*	*15.5*
20-24 years	**8.2**	*5.2*	*12.7*
25-34 years	**7.8**	*4.9*	*12.1*
35 or more years	~~**3.7**~~	~~*0.9*~~	~~*13.7*~~
Level of Education			
Less than High School	**9.9**	*6.2*	*15.6*
High School graduate	**6.6**	*4.2*	*10.4*
More than High School	**7.1**	*4.2*	*11.8*
Marital Status			
Married	**5.5**	*2.6*	*11.3*
Not married	**8.3**	*6.2*	*11.2*
Residence			
McKinley/San Juan Counties	**7.5**	*5.4*	*10.3*
Other NM Counties	**8.0**	*4.6*	*13.7*
Income as a Percent of Poverty			
100% or lower	**7.0**	*4.9*	*10.1*
101-185%	**13.0**	*7.6*	*21.4*
186% or higher	**4.6**	*1.8*	*11.4*
Enrolled in WIC during Pregnancy			
No	**9.2**	*5.8*	*14.2*
Yes	**7.0**	*4.9*	*10.0*
Payer of Prenatal Care			
Medicaid/not IHS	**8.2**	*5.7*	*11.7*
Medicaid with IHS	**6.6**	*3.3*	*12.9*
IHS/ not Medicaid	**8.3**	*4.2*	*15.8*
Other	**8.0**	2.0	27.1



Eight percent of Navajo mothers residing in New Mexico were smoking cigarettes after delivery (7% in previous report). There were no significant differences by maternal characteristics, but the percentages were higher among Navajo mothers under the age of 35 years.

Infant in Neonatal Intensive Care Unit (NICU)

By maternal characteristic	Percent of mothers with a baby who was admitted to NICU			
2005-2011		**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=588)		**9.5**	*7.3*	*12.3*
Age				
<20 years		**11.1**	*5.9*	*19.9*
20-24 years		**7.0**	*3.8*	*12.4*
25-34 years		**11.5**	*8.1*	*16.0*
35 or more years		~~**5.8**~~	~~*2.2*~~	~~*14.5*~~
Level of Education				
Less than High School		**11.8**	*7.5*	*18.0*
High School graduate		**7.1**	*4.5*	*11.0*
More than High School		**10.1**	*6.2*	*16.0*
Marital Status				
Married		**10.4**	*6.4*	*16.4*
Not married		**9.2**	*6.7*	*12.5*
Residence				
McKinley/San Juan Counties	*	**7.8**	*5.7*	*10.6*
Other NM Counties		**14.0**	*8.8*	*21.5*
Income as a Percent of Poverty				
100% or lower		**9.3**	*6.5*	*13.1*
101-185%		**9.5**	*4.9*	*17.6*
186% or higher		**10.2**	*5.9*	*17.1*
Enrolled in WIC during Pregnancy				
No		**9.4**	*6.1*	*14.1*
Yes		**9.7**	*6.9*	*13.3*
Payer of Prenatal Care				
Medicaid/not IHS		**11.0**	*7.8*	*15.3*
Medicaid with IHS		~~**9.1**~~	~~*5.0*~~	~~*16.0*~~
IHS/ not Medicaid		~~**6.0**~~	~~*2.9*~~	~~*12.0*~~
Other		~~**9.4**~~	~~3.1~~	~~25.5~~

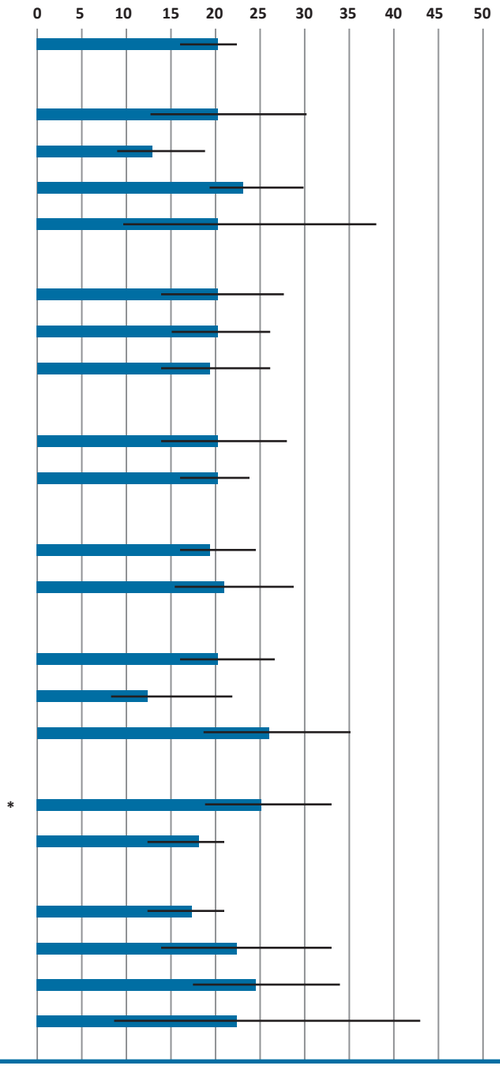


* p < 0.05

Ten percent of infants born to Navajo mothers were admitted to a neonatal intensive care unit (NICU) after delivery. While this measure was not reported in the previous report, the percentage for the 2000-2004 report was 11%. Babies born to Navajo mothers residing outside of McKinley and San Juan counties had a higher rate of NICU admission.

Postpartum depression

By maternal characteristic	Percent of mothers who had symptoms of postpartum depression			
2005-2011		**%**	***Lower***	***Upper***
All NM Navajo Mothers (n=598)		**20.1**	*16.9*	*23.9*
Age				
<20 years		**20.9**	*13.6*	*30.9*
20-24 years		**13.9**	*9.5*	*19.7*
25-34 years		**24.4**	*19.2*	*30.4*
35 or more years		~~**20.8**~~	~~*10.0*~~	~~*38.3*~~
Level of Education				
Less than High School		**20.6**	*14.8*	*27.9*
High School graduate		**20.2**	*15.0*	*26.7*
More than High School		**19.6**	*14.4*	*26.2*
Marital Status				
Married		**20.0**	*14.2*	*27.4*
Not married		**20.2**	*16.4*	*24.6*
Residence				
McKinley/San Juan Counties		**19.7**	*16.0*	*24.1*
Other NM Counties		**21.3**	*15.1*	*29.0*
Income as a Percent of Poverty				
100% or lower		**20.9**	*16.5*	*26.1*
101-185%		**13.6**	*8.0*	*22.2*
186% or higher		**26.0**	*18.3*	*35.5*
Enrolled in WIC during Pregnancy				
No	*	**25.8**	*19.3*	*33.5*
Yes		**17.5**	*13.9*	*21.8*
Payer of Prenatal Care				
Medicaid/not IHS		**17.1**	*13.2*	*21.9*
Medicaid with IHS		~~**22.5**~~	~~*14.4*~~	~~*33.3*~~
IHS/ not Medicaid		~~**25.3**~~	~~*17.8*~~	~~*34.6*~~
Other		~~**22.3**~~	~~9.5~~	~~43.7~~



* p < 0.05

Twenty percent of Navajo mothers reported symptoms of postpartum depression. The questions on symptoms of depression after delivery were first included in the PRAMS survey in 2004, so there is no estimate from the previous report. Navajo women who were not enrolled in WIC were more likely to report symptoms of postpartum depression.

Families FIRST services after delivery

By maternal characteristic	Among Medicaid-eligible mothers, percent who received services from the Families FIRST program after delivery	%	Lower	Upper
2005-2011				
All NM Navajo Mothers (n=440)		**4.4**	*2.8*	*6.6*
Age				
<20 years		**5.7**	*2.4*	*12.9*
20-24 years		**3.1**	*1.3*	*7.1*
25-34 years		**3.5**	*1.7*	*7.3*
35 or more years		~~**10.7**~~	~~*4.0*~~	~~*25.7*~~
Level of Education				
Less than High School		**5.5**	*2.7*	*10.7*
High School graduate		**4.7**	*2.5*	*8.5*
More than High School		~~**2.6**~~	~~*0.9*~~	~~*7.8*~~
Marital Status				
Married		~~**3.2**~~	~~*1.0*~~	~~*9.2*~~
Not married		**4.7**	*2.9*	*7.3*
Residence				
McKinley/San Juan Counties		**4.3**	*2.6*	*7.2*
Other NM Counties		**4.4**	*2.1*	*9.0*
Income as a Percent of Poverty				
100% or lower		**5.2**	*3.2*	*8.2*
101-185%		**2.2**	*0.6*	*8.1*
186% or higher		**4.6**	*1.2*	*16.2*
Enrolled in WIC during Pregnancy				
No		~~**3.1**~~	~~*1.1*~~	~~*8.2*~~
Yes		**4.7**	*3.0*	*7.5*
Payer of Prenatal Care				
Medicaid/not IHS		**4.5**	*2.5*	*7.9*
Medicaid with IHS		**3.4**	*1.5*	*7.5*
IHS/ not Medicaid		~~**6.2**~~	~~*1.5*~~	~~*22.0*~~
Other		~~**8.6**~~	~~1.3~~	~~41.1~~

Four percent of Navajo mothers received Families FIRST high-risk case management services after delivery (4% in previous report). The percentages did not vary significantly by maternal characteristics.

Home visiting services after delivery

By maternal characteristic	Percent of mothers who received home visiting services after delivery	%	Lower	Upper
2005-2011				
All NM Navajo Mothers (n=580)		**34.4**	*30.5*	*38.6*
Age				
<20 years		~~**37.3**~~	~~*28.1*~~	~~*47.5*~~
20-24 years		**29.5**	*23.2*	*36.6*
25-34 years		**36.0**	*30.1*	*42.5*
35 or more years		~~**38.5**~~	~~*24.5*~~	~~*54.7*~~
Level of Education				
Less than High School		**31.2**	*24.3*	*38.9*
High School graduate		**39.2**	*32.7*	*46.1*
More than High School		~~**32.2**~~	~~*25.7*~~	~~*39.4*~~
Marital Status				
Married		~~**33.2**~~	~~*25.8*~~	~~*41.6*~~
Not married		**34.8**	*30.2*	*39.7*
Residence				
McKinley/San Juan Counties	*	**42.9**	*38.0*	*47.9*
Other NM Counties		**11.0**	*6.8*	*17.2*
Income as a Percent of Poverty				
100% or lower		**36.0**	*30.8*	*41.6*
101-185%		~~**34.7**~~	~~*25.9*~~	~~*44.7*~~
186% or higher		~~**29.6**~~	~~*21.5*~~	~~*39.3*~~
Enrolled in WIC during Pregnancy				
No		~~**36.9**~~	~~*29.5*~~	~~*44.9*~~
Yes		**33.4**	*28.8*	*38.4*
Payer of Prenatal Care				
Medicaid/not IHS	*	**24.2**	*19.0*	*30.3*
Medicaid with IHS		~~**37.4**~~	~~*29.6*~~	~~*45.8*~~
IHS/ not Medicaid		~~**57.4**~~	~~*48.1*~~	~~*66.1*~~
Other		~~**22.1**~~	~~11.2~~	~~38.9~~

*** p < 0.05**

Approximately one-third, 34% (12% previous report), of Navajo mothers received home visits by a health worker after giving birth. A higher percentage of women living in McKinley or San Juan counties received home visiting services than those living in other New Mexico counties, as did those women who were not enrolled in Medicaid and received prenatal care through I.H.S.

Smoking cessation program after delivery

By maternal characteristic	2005-2011	%	Lower	Upper
	Percent of mothers who participated in a smoking cessation class or support group after delivery			
All NM Navajo Mothers (n=569)		0.7	0.3	1.8
Age				
<20 years		~~1.2~~	~~0.2~~	~~7.8~~
20-24 years		~~0.4~~	~~0.1~~	~~2.4~~
25-34 years		~~0.9~~	~~0.2~~	~~2.4~~
35 or more years		0.0		
Level of Education				
Less than High School		~~1.5~~	~~0.4~~	~~5.7~~
High School graduate		~~0.6~~	~~0.2~~	~~2.4~~
More than High School		0.0		
Marital Status				
Married		0.0		
Not married		0.9	0.3	2.4
Residence				
McKinley/San Juan Counties		~~0.6~~	~~0.2~~	~~2.0~~
Other NM Counties		~~0.8~~	~~0.1~~	~~5.3~~
Income as a Percent of Poverty				
100% or lower		1.2	0.4	3.1
101-185%		0.0		
186% or higher		0.0		
Enrolled in WIC during Pregnancy				
No		0.0		
Yes		1.0	0.4	2.6
Payer of Prenatal Care				
Medicaid/not IHS		~~1.1~~	~~0.3~~	~~4.3~~
Medicaid with IHS		~~0.5~~	~~0.1~~	~~3.2~~
IHS/ not Medicaid		~~0.6~~	~~0.1~~	~~4.0~~
Other		0.0		

Less than one percent of Navajo mothers participated in a smoking cessation class of support group after giving birth. Because the number of mothers included in this table is small (with only 1% of mothers in the survey saying "yes" to this question), it is not surprising that none of the maternal characteristics were significantly associated with participation.

Breastfeeding class after delivery

By maternal characteristic		2005-2011	%	Lower	Upper
		Percent of mothers who participated in a postpartum breastfeeding class after delivery			
All NM Navajo Mothers (n=571)			11.5	9.1	14.5
Age					
<20 years			13.2	7.8	21.6
20-24 years			14.5	9.8	20.9
25-34 years			8.7	5.8	13.0
35 or more years			11.3	5.1	23.1
Level of Education					
Less than High School	*		7.6	4.4	12.8
High School graduate			9.9	6.6	14.6
More than High School			16.2	11.2	22.7
Marital Status					
Married			13.7	9.0	20.3
Not married			10.8	8.1	14.3
Residence					
McKinley/San Juan Counties	*		9.7	7.2	13.0
Other NM Counties			16.4	11.1	23.6
Income as a Percent of Poverty					
100% or lower			9.7	6.9	13.5
101-185%			13.0	7.5	21.5
186% or higher			16.4	10.2	25.1
Enrolled in WIC during Pregnancy					
No			7.7	4.4	13.1
Yes			13.3	10.3	17.1
Payer of Prenatal Care					
Medicaid/not IHS			9.7	6.4	14.6
Medicaid with IHS			14.3	9.6	20.9
IHS/ not Medicaid			12.1	7.3	19.4
Other			10.3	3.9	24.9

*** p < 0.05**

Twelve percent (10% previous report) of Navajo mothers participated in a breastfeeding class or a support group after giving birth. The characteristics found to be significantly associated with participation were level of mother's education and region of residence. Navajo mothers with education beyond high school were more likely to have participated in a breastfeeding class, and mothers residing outside of the McKinley/San Juan County region.

Discussion

The results in this report can be used to compare and monitor changes from the previous report (2000-2004) in behaviors and experiences of Navajo mothers over the course of pregnancy. The results identified important health issues to address during each pregnancy period.

Preconception Behavior and experiences

- Women who plan their pregnancy have been shown to have more healthy outcomes. However, approximately two-thirds (62%) of Navajo mothers who were not trying to get pregnant failed to use contraception. Over half (52%) of Navajo mothers did not intend to become pregnant
- Most vitamins contain folic acid, an adequate intake of folic acid has been proven to be effective in reducing the occurrence of neural tube defects (defects of the brain, spine, or spinal cord). However, approximately two-thirds (61%) of Navajo mothers did not take a multivitamin or prenatal vitamin before pregnancy.
- In addition to addressing risk behaviors, an aim of preconception care is to identify and provide appropriate management of chronic health conditions that may affect the mother's health during and after pregnancy and that may have a lifetime negative impact on infants. Among the pre-pregnancy health conditions assessed, the prevalence of being overweight was high (57%) among Navajo mothers. As a result a substantial proportion of Navajo mothers were at increased risk of pregnancy complications and experience negative pregnancy outcomes.

Prenatal behaviors and experiences

- Prenatal care gives mothers the opportunity to learn about screening for birth defects, safe medications, breastfeeding and unhealthy behaviors. However, 43% of Navajo mothers did not receive prenatal care beginning in the first trimester, and only half (49%) received adequate prenatal care. These results underscore the need to increase efforts to ensure that mothers enter prenatal care early and receive adequate care. Navajo mothers with less education were at particular risk of receiving late-term or no care.
- Good oral health and dental visits help reduce the number of preterm births and low birth weight infants.1 However, only approximately one-third (37%) of Navajo mothers discussed oral health with their providers or sought dental care during pregnancy.
- Physical abuse during pregnancy not only causes trauma to the mother and fetus but also results in high levels of stress that can put the mother at risk for adverse health and pregnancy outcomes. Unfortunately, physical abuse was experienced by some Navajo mothers in the survey, and the prevalence of physical abuse did not change substantially from preconception to pregnancy (from 8% to 7%). Younger Navajo mothers appeared to be more likely to be abused and remain in unsafe environments after becoming pregnant.
- Medical guidelines advise against any alcohol and tobacco use during pregnancy. Alcohol use puts a mother at risk of having an infant with Fetal Alcohol (FAS), and tobacco use leads to adverse health effects such as restricted uterine growth, stillbirth and low birth weight. Although the reported prevalence for both alcohol and tobacco use were less than 10% in this survey, Navajo mothers still need to be made aware of the risks of using alcohol and tobacco during pregnancy and to be given more opportunities to enter cessation programs.

- In addition to addressing risk behaviors, an aim of prenatal care is to identify and provide appropriate management of chronic health conditions that may affect the mother's health during and after pregnancy and that may have a lifetime negative impact on infants. Among the pre-pregnancy health conditions assessed, the prevalence of pre-existing diabetes was high about 3% among Navajo mothers. As a result a substantial proportion of Navajo mothers were at increased risk of pregnancy complications and negative pregnancy outcomes.
- Sufficient supply of nutritious food during pregnancy is essential to the health of the mother and child. However, 20% of Navajo mothers reported food insufficiency during pregnancy. This finding indicates that these Navajo mothers may not have sufficient nutritional intake during pregnancy. Navajo mothers with a lower level of education and low income mothers were more likely to not always have sufficient food to eat.

Notes:

Jeffcoat M, Geurs N, Reddy M, Cliver S, Goldenberg R, Hauth J. Periodontal infection and preterm birth: results of a prospective study. J Am Dent Association. 2001 July; 132(7); 875-80.

Postpartum behavior and Experiences

- The consistent and proper use of contraception is essential to prevent unintended and unwanted pregnancies. Contraceptive use increased from 32% before pregnancy to 77% postpartum among Navajo mothers who did not want to be pregnant. This finding suggests that Navajo mothers may have greater awareness of or access to contraception after pregnancy compared to before pregnancy.
- As described before, breastfeeding offers many health benefits to the mother and child. Breastfeeding initiation among Navajo mothers was high (84%). However, only 61% continued to breastfeed for at least 2 months. These results indicate that, in addition to encouraging Navajo mothers to begin breastfeeding, mothers should also be encouraged to prolong breastfeeding, especially Navajo mothers with less education.
- In general, support programs focus on improving maternal experiences and behaviors. However, Navajo mothers reported low participation in support programs that aim to reduce family violence and use of alcohol, drugs and cigarettes. The most widely used programs were home visiting services at 34%, breastfeeding class or support group at 12%. The least used programs were smoking cessation programs at 0.7%, and Families FIRST case management at 4%. These findings identify the important need of determining why Navajo mothers did not participate in such programs, or why these programs might not be available.
- In general, babies are admitted to neonatal intensive care unit (NICU) to receive additional specialized medical care. Reasons for NICU admissions include preterm birth, birth defects, breathing and feeding problems, infections, or other medical conditions. NICU admissions were higher (14%) for babies born to Navajo mothers residing elsewhere in New Mexico compared to those residing in McKinley or San Juan counties (8%).
- Postpartum depression (PPD) affects mothers within the first year after giving birth. Younger mothers and those experiencing partner-related stress or physical abuse might be more likely to develop PPD. PPD was common among Navajo mothers, with 20% reporting symptoms of depression after delivery. The percentages were similar among all the subgroups, except those not enrolled in WIC during pregnancy had a significantly higher rate of 26%.

Conclusions and Recommendations

The results discussed in the report identify important maternal and child health indicators that need to be targeted to promote healthy pregnancy and birth outcomes. These findings indicate that many Navajo mothers did not engage in healthy behaviors and/or experienced unhealthy outcomes throughout pregnancy.

In light of the results, targeted and accessible public health services, education and interventions are needed. The following recommendations constitute a framework that public health and health care providers can use to improve the health of Navajo mothers and their infants.

- Increase education about the benefits of folic acid and multivitamin consumption, particularly before pregnancy. Conduct research to identify the barriers to taking multivitamins and folic acid regularly.
- Increase education efforts to make Navajo mothers more aware of and guide them to programs that help make better lifestyle decisions. Healthy foods must also be made accessible, and public health and health care programs must strategize on how to increase physical activity among at-risk mothers.
- Increase collaborations between tribal health programs and healthcare professionals to identify barriers to early prenatal care and strategize to reduce or eliminate these barriers.
- Increase efforts to educate mothers on the importance of oral health, including the risks of poor oral health during pregnancy. Oral health education programs targeted at pregnant mothers are needed.
- Increase provider screening for domestic abuse during prenatal care and refer at-risk mothers to appropriate services and resources. Improve education and access to contraception methods to prevent unintended and unwanted pregnancies.
- In 2008, the Navajo Nation passed legislation in support of breastfeeding in the workplace, allowing mothers greater opportunity to breastfeed. Health professionals need to ensure that mothers receive the resources needed to feel confident and comfortable with breastfeeding.
- Increase awareness of programs that provide nutritious food to pregnant mothers and their infants, thereby addressing the issue of food insufficiency.
- Increase referrals of mothers to effective and culturally relevant support services to improve unhealthy situations and behaviors. Tribal health programs and healthcare professionals must work together and support research to determine why mothers do not use available support programs as well as why programs might not be available.
- Increase initiatives that encourage family planning. Women who plan their pregnancy are more likely to enter pregnancy in better health, have their chronic health conditions under control, and be aware of unhealthy behaviors and experiences than can adversely affect their health and the health of their unborn child.
- Inform the Navajo Nation Council to advocate for funds on behalf of Navajo mothers and their children to address the needs stated above and establish policies accordingly.
- Eliminate legislation loopholes in the public safety and judicial systems to provide a safe environment for women and children by enforcing violent perpetrators with penalties.

Appendix

Phase 6 New Mexico Pregnancy Risk Assessment Monitoring System Survey

Please mark your answers. Follow the directions included with the questions. If no directions are presented, check the box next to your answer or fill in the blanks. Because not all questions will apply to everyone, you may be asked to skip certain questions.

BEFORE PREGNANCY

First, we would like to ask a few questions about *you* and the time *before* you got pregnant with your new baby.

1. At any time during the *12 months before* you got pregnant with your new baby, did you do any of the following things? For each item, circle **Y** (Yes) if you did it or circle **N** (No) if you did not.

		No	Yes
a.	I was dieting (changing my eating habits) to lose weight	N	Y
b.	I was exercising 3 or more days of the week	N	Y
c.	I was regularly taking prescription medicines other than birth control	N	Y
d.	I visited a health care worker to be checked or treated for diabetes.	N	Y
e.	I visited a health care worker to be checked or treated for high blood pressure	N	Y
f.	I visited a health care worker to be checked or treated for depression or anxiety	N	Y
g.	I talked to a health care worker about my family medical history	N	Y
h.	I had my teeth cleaned by a dentist or dental hygienist.	N	Y

2. During the *month before* you got pregnant with your new baby, were you covered by any of these health insurance plans?

Check all that apply

- ❑ Health insurance from your job or the job of your husband, partner, or parents
- ❑ Health insurance that you or someone else paid for (not from a job)
- ❑ Medicaid or Salud!
- ❑ TRICARE or other military health care
- ❑ Indian Health Service (IHS)
- ❑ State Coverage Insurance (SCI)
- ❑ Indigent Health Care
- ❑ Other source(s) → Please tell us:

  _____

- ❑ I did not have any health insurance before I got pregnant

3. 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?

- ❑ I didn't take a multivitamin, prenatal vitamin, or folic acid vitamin at all
- ❑ 1 to 3 times a week
- ❑ 4 to 6 times a week
- ❑ Every day of the week

→ **Go to Page 2, Question 5**

4. What were your reasons for not taking multivitamins, prenatal vitamins, or folic acid vitamins during the *month before* you got pregnant with your new baby?

Check all that apply

- ❑ I wasn't planning to get pregnant
- ❑ I didn't think I needed to take vitamins
- ❑ The vitamins were too expensive
- ❑ The vitamins gave me side effects (such as constipation)
- ❑ Other → Please tell us:

  _____

5. *Just before* you got pregnant with your new baby, how much did you weigh?

_____ Pounds **OR** _____ Kilos

6. How tall are you without shoes?

_____ Feet _____ Inches

OR _____ Meters

7. What is *your* date of birth?

_____ / _____ / 19_____

Month Day Year

8. *Before* you got pregnant with your new baby, were you ever told by a doctor, nurse, or other health care worker that you had Type 1 or Type 2 diabetes? This is not the same as gestational diabetes or diabetes that starts during pregnancy.

- ❑ No
- ❑ Yes

9. *Before* you got pregnant with your new baby, did you ever have any other babies who were born alive?

- ❑ No → **Go to Question 12**
- ❑ Yes

Go to Question 10

10. Did the baby born *just before* your new one weigh *more* than 5 pounds, 8 ounces (2.5 kilos) at birth?

- ❑ No
- ❑ Yes

11. Was the baby *just before* your new one born *more* than 3 weeks before his or her due date?

- ❑ No
- ❑ Yes

The next questions are about the time when you got pregnant with your *new* baby.

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

Check one answer

- ❑ I wanted to be pregnant sooner
- ❑ I wanted to be pregnant later
- ❑ I wanted to be pregnant then
- ❑ I didn't want to be pregnant then or at any time in the future

13. When you got pregnant with your new baby, were you trying to get pregnant?

- ❑ No
- ❑ Yes → **Go to Question 16**

Go to Question 14

14. When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant? (Some things people do to keep from getting pregnant include not having sex at certain times [natural family planning or rhythm] or withdrawal, and using birth control methods such as the pill, condoms, vaginal ring, IUD, having their tubes tied, or their partner having a vasectomy.)

- ❑ No
- ❑ Yes → **Go to Question 16**

15. What were your reasons or your husband's or partner's reasons for not doing anything to keep from getting pregnant?

Check all that apply

- ❑ I didn't mind if I got pregnant
- ❑ I thought I could not get pregnant at that time
- ❑ I had side effects from the birth control method I was using
- ❑ I had problems getting birth control when I needed it
- ❑ I thought my husband or partner or I was sterile (could not get pregnant at all)
- ❑ My husband or partner didn't want to use anything
- ❑ Other → Please tell us:

_____

DURING PREGNANCY

The next questions are about the prenatal care you received during your most recent pregnancy. Prenatal care includes visits to a doctor, nurse, or other health care worker before your baby was born to get checkups and advice about pregnancy. (It may help to look at the calendar when you answer these questions.)

16. How many weeks or months pregnant were you when you were *sure* you were pregnant? (For example, you had a pregnancy test or a doctor or nurse said you were pregnant.)

_____ Weeks **OR** _____ Months

- ❑ I don't remember

17. How many weeks or months pregnant were you when you had your first visit for prenatal care? Do not count a visit that was only for a pregnancy test or only for WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children).

_____ Weeks **OR** _____ Months

- ❑ I didn't go for prenatal care → **Go to Page 4, Question 19**

Go to Page 4, Question 18

18. Did you get prenatal care as early in your pregnancy as you wanted?

- ❑ No
- ❑ Yes → **Go to Question 20**

19. Did any of these things keep you from getting prenatal care at all or as early as you wanted? For each item, circle **T** (True) if it was a reason that you didn't get prenatal care when you wanted or circle **F** (False) if it was not a reason for you or if something does not apply to you.

		True	False
a.	I couldn't get an appointment when I wanted one	T	F
b.	I didn't have enough money or insurance to pay for my visits	T	F
c.	I had no transportation to get to the clinic or doctor's office	T	F
d.	The doctor or my health plan would not start care as early as I wanted	T	F
e.	I had too many other things going on	T	F
f.	I couldn't take time off from work or school	T	F
g.	I didn't have my Medicaid or Salud! card	T	F
h.	I had no one to take care of my children	T	F
i.	I didn't know that I was pregnant	T	F
j.	I didn't want anyone else to know I was pregnant	T	F
k.	I didn't want prenatal care	T	F

If you did not go for prenatal care, go to Question 23.

20. Where did you go *most of the time* for your prenatal care visits? Do not include visits for WIC.

Check one answer

- ❑ Hospital clinic
- ❑ Health department clinic
- ❑ Private doctor's office or HMO clinic
- ❑ Indian Health Service clinic or hospital
- ❑ Community clinic
- ❑ Other → Please tell us:

21. Did any of these health insurance plans help you pay for your *prenatal care*?

Check all that apply

- ❑ Health insurance from your job or the job of your husband, partner, or parents
- ❑ Health insurance that you or someone else paid for (not from a job)
- ❑ Medicaid or Salud!
- ❑ TRICARE or other military health care
- ❑ Indian Health Service (IHS), with or without Medicaid
- ❑ State Coverage Insurance (SCI)
- ❑ Premium Assistance for Maternity (PAM)
- ❑ Other source(s) → Please tell us:
- ❑ I did not have health insurance to help pay for my prenatal care

22. *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? *Please count only discussions*, not reading materials or videos. For each item, circle **Y** (Yes) if someone talked with you about it or circle **N** (No) if no one talked with you about it.

		No	Yes
a.	How smoking during pregnancy could affect my baby	N	Y
b.	Breastfeeding my baby	N	Y
c.	How drinking alcohol during pregnancy could affect my baby	N	Y
d.	Using a seat belt during my pregnancy	N	Y
e.	Medicines that are safe to take during my pregnancy	N	Y
f.	How using illegal drugs could affect my baby	N	Y
g.	Doing tests to screen for birth defects or diseases that run in my family	N	Y
h.	The signs and symptoms of preterm labor (labor more than 3 weeks before the baby is due)	N	Y
i.	What to do if my labor starts early	N	Y
j.	Getting tested for HIV (the virus that causes AIDS)	N	Y
k.	What to do if I feel depressed during my pregnancy or after my baby is born	N	Y
l.	Physical abuse to women by their husbands or partners	N	Y

23. At any time during *your most recent* pregnancy or delivery, did you have a test for HIV (the virus that causes AIDS)?

- ❑ No
- ❑ Yes
- ❑ I don't know

24. During *your most recent* pregnancy, were you on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)?

- ❑ No
- ❑ Yes

25. During *your most recent* pregnancy, were you told by a doctor, nurse, or other health care worker that you had gestational diabetes (diabetes that started during *this* pregnancy)?

- ❑ No
- ❑ Yes

26. Did you have any of the following problems during *your most recent* pregnancy? For each item, circle **Y** (Yes) if you had the problem or circle **N** (No) if you did not.

		No	Yes
a.	Vaginal bleeding	N	Y
b.	Kidney or bladder (urinary tract) infection	N	Y
c.	***Severe*** nausea, vomiting, or dehydration	N	Y
d.	Cervix had to be sewn shut (cerclage for incompetent cervix)	N	Y
e.	High blood pressure, hypertension (including pregnancy-induced hypertension [PIH]), preeclampsia, or toxemia	N	Y
f.	Problems with the placenta (such as abruptio placentae or placenta previa)	N	Y
g.	Labor pains more than 3 weeks before my baby was due (preterm or early labor)	N	Y
h.	Water broke more than 3 weeks before my baby was due (premature rupture of membranes [PROM])	N	Y
i.	I had to have a blood transfusion	N	Y
j.	I was hurt in a car accident	N	Y

The next questions are about smoking cigarettes around the time of pregnancy (before, during, and after).

27. Have you smoked any cigarettes in the *past 2 years*?

- ❑ No → **Go to Question 31**
- ❑ Yes

Go to Question 28

28. In the *3 months before* you got pregnant, how many cigarettes did you smoke on an average day? (A pack has 20 cigarettes.)

- ❑ 41 cigarettes or more
- ❑ 21 to 40 cigarettes
- ❑ 11 to 20 cigarettes
- ❑ 6 to 10 cigarettes
- ❑ 1 to 5 cigarettes
- ❑ Less than 1 cigarette
- ❑ I didn't smoke then

29. In the *last 3 months* of your pregnancy, how many cigarettes did you smoke on an average day? (A pack has 20 cigarettes.)

- ❑ 41 cigarettes or more
- ❑ 21 to 40 cigarettes
- ❑ 11 to 20 cigarettes
- ❑ 6 to 10 cigarettes
- ❑ 1 to 5 cigarettes
- ❑ Less than 1 cigarette
- ❑ I didn't smoke then

30. How many cigarettes do you smoke on an average day *now*? (A pack has 20 cigarettes.)

- ❑ 41 cigarettes or more
- ❑ 21 to 40 cigarettes
- ❑ 11 to 20 cigarettes
- ❑ 6 to 10 cigarettes
- ❑ 1 to 5 cigarettes
- ❑ Less than 1 cigarette
- ❑ I don't smoke now

31. Which of the following statements best describes the rules about smoking *inside* your home *now*?

Check one answer

- ❑ No one is allowed to smoke anywhere inside my home
- ❑ Smoking is allowed in some rooms or at some times
- ❑ Smoking is permitted anywhere inside my home

The next questions are about drinking alcohol around the time of pregnancy (before, during, and after).

32. Have you had any alcoholic drinks in the *past 2 years*? A drink is 1 glass of wine, wine cooler, can or bottle of beer, shot of liquor, or mixed drink.

- ❑ No → **Go to Question 35**
- ❑ Yes

33a. During the *3 months before* you got pregnant, how many alcoholic drinks did you have in an average week?

- ❑ 14 drinks or more a week
- ❑ 7 to 13 drinks a week
- ❑ 4 to 6 drinks a week
- ❑ 1 to 3 drinks a week
- ❑ Less than 1 drink a week
- ❑ I didn't drink

then → **Go to Question 34a**

33b. During the *3 months before* you got pregnant, how many times did you drink 4 alcoholic drinks or more in one sitting? A sitting is a two hour time span.

- ❑ 6 or more times
- ❑ 4 to 5 times
- ❑ 2 to 3 times
- ❑ 1 time
- ❑ I didn't have 4 drinks or more in 1 sitting

34a. During the *last 3 months* of your pregnancy, how many alcoholic drinks did you have in an average week?

- ❑ 14 drinks or more a week
- ❑ 7 to 13 drinks a week
- ❑ 4 to 6 drinks a week
- ❑ 1 to 3 drinks a week
- ❑ Less than 1 drink a week
- ❑ I didn't drink

then → **Go to Question 35**

Go to Question 34b

34b. During the *last 3 months* of your pregnancy, how many times did you drink 4 alcoholic drinks or more in one sitting? A sitting is a two hour time span.

- ❑ 6 or more times
- ❑ 4 to 5 times
- ❑ 2 to 3 times
- ❑ 1 time
- ❑ I didn't have 4 drinks or more in 1 sitting

Pregnancy can be a difficult time for some women. The next questions are about things that may have happened *before* and *during* your most recent pregnancy.

35. This question is about things that may have happened during the *12 months before* your new baby was born. For each item, circle **Y** (Yes) if it happened to you or circle **N** (No) if it did not. (It may help to look at the calendar when you answer these questions.)

		No	Yes
a.	A close family member was very sick and had to go into the hospital	N	Y
b.	I got separated or divorced from my husband or partner	N	Y
c.	I moved to a new address	N	Y
d.	I was homeless	N	Y
e.	My husband or partner lost his job	N	Y
f.	I lost my job even though I wanted to go on working	N	Y
g.	I argued with my husband or partner more than usual	N	Y
h.	My husband or partner said he didn't want me to be pregnant	N	Y
i.	I had a lot of bills I couldn't pay	N	Y
j.	I was in a physical fight	N	Y
k.	My husband or partner or I went to jail	N	Y
l.	Someone very close to me had a problem with drinking or drugs	N	Y
m.	Someone very close to me died	N	Y

36. During the *12 months before* you got pregnant with your new baby, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?

- ❑ No
- ❑ Yes

37. During *your most recent* pregnancy, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?

- ❑ No
- ❑ Yes

The next questions are about your labor and delivery. (It may help to look at the calendar when you answer these questions.)

38. When was your baby due?

____ / ____ / 20____
Month Day Year

39. When did you go into the hospital to have your baby?

____ / ____ / 20____
Month Day Year

- ❑ I didn't have my baby in a hospital

40. When was your baby born?

____ / ____ / 20____
Month Day Year

41. How was your *new* baby delivered?

- ❑ Vaginally → **Go to Question 43**
- ❑ Cesarean delivery (c-section)

42. What was the reason that your *new* baby was born by cesarean delivery (c-section)?

Check all that apply

- ❑ I had a previous cesarean delivery (c-section)
- ❑ My baby was in the wrong position
- ❑ I was past my due date
- ❑ My health care provider worried that my baby was too big
- ❑ I had a medical condition that made labor dangerous for me
- ❑ My health care provider tried to induce my labor, but it didn't work
- ❑ Labor was taking too long
- ❑ The fetal monitor showed that my baby was having problems during labor
- ❑ I wanted to schedule my delivery
- ❑ I didn't want to have my baby vaginally
- ❑ Other reason(s) → Please tell us:

_____

43. When were you discharged from the hospital after your baby was born?

____ / ____ / 20____
Month Day Year

- ❑ I didn't have my baby in a hospital

44. Did any of these health insurance plans help you pay for the *delivery* of your new baby?

Check all that apply

- ❑ Health insurance from your job or the job of your husband, partner, or parents
- ❑ Health insurance that you or someone else paid for (not from a job)
- ❑ Medicaid or Salud!
- ❑ TRICARE or other military health care
- ❑ Indian Health Service (IHS)
- ❑ State Coverage Insurance (SCI)
- ❑ Premium Assistance for Maternity (PAM)
- ❑ Other source(s) → Please tell us:

_____

- ❑ I did not have health insurance to help pay for my delivery

AFTER PREGNANCY

The next questions are about the time since your new baby was born.

45. After your baby was born, was he or she put in an intensive care unit?

- ❑ No
- ❑ Yes
- ❑ I don't know

46. After your baby was born, how long did he or she stay in the hospital?

- ❑ Less than 24 hours (less than 1 day)
- ❑ 24 to 48 hours (1 to 2 days)
- ❑ 3 to 5 days
- ❑ 6 to 14 days
- ❑ More than 14 days
- ❑ My baby was not born in a hospital
- ❑ My baby is still in the hospital → **Go to Question 49**

47. Is your baby alive now?

- ❑ No → **Go to Page 11, Question 57**
- ❑ Yes

48. Is your baby living with you now?

- ❑ No → **Go to Page 11, Question 57**
- ❑ Yes

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

- ❑ No → **Go to Page 10, Question 53b**
- ❑ Yes

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

- ❑ No
- ❑ Yes → **Go to Page 10, Question 53a**

51. How many weeks or months did you breastfeed or pump milk to feed your baby?

____ Weeks **OR** ____ Months

- ❑ Less than 1 week

52. What were your reasons for stopping breastfeeding?

Check all that apply

- ❑ My baby had difficulty latching or nursing
- ❑ Breast milk alone did not satisfy my baby
- ❑ I thought my baby was not gaining enough weight
- ❑ My nipples were sore, cracked, or bleeding
- ❑ It was too hard, painful, or too time consuming
- ❑ I thought I was not producing enough milk
- ❑ I had too many other household duties
- ❑ I felt it was the right time to stop breastfeeding
- ❑ I got sick and was not able to breastfeed
- ❑ I went back to work or school
- ❑ My baby was jaundiced (yellowing of the skin or whites of the eyes)
- ❑ Other → Please tell us:

_____

53a. How old was your new baby the first time he or she drank liquids other than breast milk (such as formula, water, juice, tea, or cow's milk)?

_____ Weeks **OR** _____ Months

- ❑ My baby was less than 1 week old
- ❑ My baby has not had any liquids other than breast milk

53b. How old was your new baby the first time he or she ate food (such as baby cereal, baby food, or any other food)?

_____ Weeks **OR** _____ Months

- ❑ My baby was less than 1 week old
- ❑ My baby has not eaten any foods

If your baby is still in the hospital, go to Question 57.

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

Check one answer

- ❑ On his or her side
- ❑ On his or her back
- ❑ On his or her stomach

55. Listed below are some things that describe how your new baby *usually* sleeps. For each item, circle **T** (True) if it usually applies to your baby or **F** (False) if it doesn't usually apply to your baby.

		True	False
a.	My new baby sleeps in a crib or portable crib	T	F
b.	My new baby sleeps on a firm or hard mattress	T	F
c.	My new baby sleeps with pillows	T	F
d.	My new baby sleeps with bumper pads	T	F
e.	My new baby sleeps with plush blankets	T	F
f.	My new baby sleeps with stuffed toys	T	F
g.	My new baby sleeps with another person	T	F

56. Was your new baby seen by a doctor, nurse, or other health care worker for a *one week check-up* after he or she was born?

- ❑ No
- ❑ Yes

57. Are you or your husband or partner doing anything *now* to keep from getting pregnant? (Some things people do to keep from getting pregnant include not having sex at certain times [natural family planning or rhythm] or withdrawal, and using birth control methods such as the pill, condoms, vaginal ring, IUD, having their tubes tied, or their partner having a vasectomy.)

- ❑ No
- ❑ Yes → **Go to Question 59**

58. What are your reasons or your husband's or partner's reasons for not doing anything to keep from getting pregnant *now*?

Check all that apply

- ❑ I am not having sex
- ❑ I want to get pregnant
- ❑ I don't want to use birth control
- ❑ My husband or partner doesn't want to use anything
- ❑ I don't think I can get pregnant (sterile)
- ❑ I can't pay for birth control
- ❑ I am pregnant now
- ❑ Other → Please tell us:

_____

59. Below is a list of feelings and experiences that women sometimes have after childbirth. Read each item to determine how well it describes your feelings and experiences. Then, write on the line the number of the choice that best describes how often you have felt or experienced things this way *since your new baby was born*. Use the scale when answering:

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

a. I felt down, depressed, or sad. . . ___

b. I felt hopeless . . . . . ___

c. I felt slowed down . . . . . ___

OTHER EXPERIENCES

The next questions are on a variety of topics.

If you did not go for prenatal care, go to Page 12, Question 61.

60. There are many feelings and experiences women may have with prenatal care. Please select the statement or statements that most closely describe your feelings or experiences with prenatal care *during your most recent pregnancy*.

Check all that apply

- ❑ I was happy with the prenatal care I got
- ❑ I felt disrespected by clinic or hospital staff during prenatal care
- ❑ I did not have prenatal insurance coverage and I did not qualify for Medicaid
- ❑ I wanted prenatal care earlier, but I was waiting for my Medicaid eligibility
- ❑ I received some or all of my prenatal care outside of the United States
- ❑ My husband/partner or boyfriend did not want me to get prenatal care.

61. During *your most recent* pregnancy, did any of the following medical problems cause you to go to the hospital or emergency room? For each item, circle **Y** (Yes) if it caused you to go to the hospital or emergency room or circle **N** (No) if it did not. It may help to look at a calendar when you answer this question.

		No	Yes
a.	Preterm or early labor	N	Y
b.	Severe nausea or dehydration	N	Y
c.	Kidney or bladder infection	N	Y
d.	High blood pressure	N	Y
e.	Vaginal bleeding	N	Y
f.	Premature rupture of membranes	N	Y
g.	Other	N	Y

Please tell us: ⟶

62. This question is about the care of your teeth during *your most recent* pregnancy. For each item, circle **Y** (Yes) if it is true or circle **N** (No) if it is not true.

		No	Yes
a.	I had a dental problem while I was pregnant	N	Y
b.	I went to a dentist or dental clinic while I was pregnant	N	Y
c.	A dental or other healthcare worker talked with me about how to care for my teeth and gums	N	Y
d.	I could not find a provider or clinic that would take Medicaid patients	N	Y
e.	I could not find a provider or clinic that would take pregnant patients	N	Y
f.	I could not afford to go to the dentist	N	Y
g.	I had no way to get to the dentist	N	Y

63. During your most recent pregnancy, did you participate in any of these services? For each one, circle **Y** (Yes) if you did participate or circle **N** (No) if you did not.

		No	Yes
a.	Home visiting services by a nurse, social worker, or other health care worker	N	Y
b.	Families FIRST	N	Y
c.	A class or support group to stop smoking cigarettes	N	Y
d.	Healthy Start	N	Y

If your baby is not alive or is not living with you, go to Question 70.

64. How did you get your new baby's infant car seat(s)?

Check all that apply

- ❑ I bought a car seat ***new***
- ❑ I received it new for this baby as a gift
- ❑ I had one from another one of my babies
- ❑ I bought a car seat ***used***
- ❑ I borrowed a car seat from a friend or family member
- ❑ I borrowed or rented a car seat from a loaner program
- ❑ The hospital where my new baby was born gave me a car seat
- ❑ A community program gave me a car seat
- ❑ I did not ever get a car seat for my new baby
- ❑ Other ⟶ Please tell us:

65. Have you worked outside the home in the past two years?

- ❑ No ⟶ **Go to Question 67**
- ❑ Yes

Go to Question 66

66. New Mexico state law requires that all employers provide a clean, private location for mothers to breastfeed or pump milk for their infants. What happens when a mother wants to breastfeed or pump milk for her baby at your current or most recent workplace?

Check all that apply

- ❑ She can breastfeed or pump breast milk any time
- ❑ She can breastfeed her baby during break times only
- ❑ She can pump breast milk during break times only
- ❑ She has flexible break times to breastfeed or pump milk
- ❑ She has a clean, private place that is not a bathroom, where she can breastfeed or pump milk
- ❑ She is not allowed to breastfeed or pump milk at work
- ❑ I don't know

67. *Since you delivered your new baby*, would you have the kinds of help listed below if you needed them? For each one, circle **Y** (Yes) if you would have it or circle **N** (No) if not.

		No	Yes
a.	Someone to loan me $50	N	Y
b.	Someone to help me if I were sick and needed to be in bed	N	Y
c.	Someone to talk with about my problems	N	Y
d.	Someone to take care of my baby	N	Y
e.	Someone to help me if I were tired and feeling frustrated with my new baby	N	Y

68. Since your new baby was born, have you or your baby received any home visiting services by a nurse, social worker, or other health care worker?

- ❑ No
- ❑ Yes

69. *Since your new baby was born*, have you participated in any of these services? For each one, circle **Y** (Yes) if you have participated or circle **N** (No) if you have not.

		No	Yes
a.	Breastfeeding class or peer counseling	N	Y
b.	WIC for you or your baby	N	Y
c.	Families FIRST	N	Y
d.	A class or support group to stop smoking cigarettes	N	Y
e.	Healthy Start	N	Y

70. *Since your new baby was born*, have you seen a doctor, nurse, or midwife for yourself for any of these reasons? For each one, circle **Y** (Yes) if you did or circle **N** (No) if you did not.

		No	Yes
a.	I got help for depression or "baby blues"	N	Y
b.	I received a birth control method	N	Y
c.	I received a referral for a health problem	N	Y

71. During the past 12 months, which one of the following statements best describes the food eaten by you and your family?

Check one answer

- ❑ Enough food to eat
- ❑ Sometimes not enough food to eat
- ❑ Often not enough food to eat

The last questions are about the time during the *12 months before* your new baby was born.

72. During the *12 months before* your new baby was born, did you or any member of your household apply for government payments such as welfare, TANF (Temporary Assistance for Needy Families), or other public assistance?

- ❑ No → **Go to Question 74**
- ❑ Yes

73. Did any of these happen to you when you applied for government assistance?

Check all that apply

- ❑ I received assistance
- ❑ I was told I made too much money to get assistance
- ❑ I was told I shouldn't apply because I might need my benefits later
- ❑ I was told I couldn't get assistance because I am from another country

74. During the *12 months before* your new baby was born, what was your yearly total household income before taxes? Include your income, your husband's or partner's income, and any other income you may have received. (All information will be kept private and will not affect any services you are now getting.)

- ❑ Less than $10,000
- ❑ $10,000 to $14,999
- ❑ $15,000 to $19,999
- ❑ $20,000 to $24,999
- ❑ $25,000 to $34,999
- ❑ $35,000 to $49,999
- ❑ $50,000 to $64,999
- ❑ $65,000 to $74,999
- ❑ $75,000 or more

75. During the *12 months before* your new baby was born, how many people, *including yourself*, depended on this income?

_____ People

76. What is today's date?

_____ / _____ / 20_____

Month Day Year

Please use this space for any additional comments you would like to make about the health of mothers and babies in New Mexico.

Thanks for answering our questions!

Your answers will help us work to make New Mexico mothers and babies healthier.

Report on New Mexico Navajo Mothers and Their Infants, 2005-2011

Based on New Mexico Pregnancy Risk Assessment Monitoring System Data