Introduction

The New Mexico Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing project of the New Mexico Department of Health with support from the national Centers for Disease Control and Prevention (CDC). PRAMS is a multi-year, population- based surveillance system designed to identify and monitor selected maternal behaviors and experiences occurring before, during and after pregnancy. NM PRAMS has been conducted statewide since 1997. New Mexico is one of 30 states currently participating in PRAMS nationwide. Each year, approximately 2000 new mothers are randomly sampled.

PRAMS is a mailed survey with questions on 40 different topics including feelings about the pregnancy, barriers to and content of prenatal care, nutrition and folic acid awareness, pregnancy related violence, psychosocial stress and support, alcohol and tobacco use before and during pregnancy, health insurance coverage, Medicaid coverage, breastfeeding, birth control, infant sleep position and immunizations.

PRAMS provides a picture of the health of mothers and infants in New Mexico. PRAMS findings are used in the public and private sectors to inform the policymaking process, program planning, decisions about health resources, and education of health care providers and the greater public.

Translating data into public health action is what NM PRAMS is all about. It is our primary goal. Our expectation is that ultimately this report will be used to generate a positive impact on the health of women and children in New Mexico. This happens through in-depth analysis and interpretation of data, broad-based participation in its dissemination and development of intervention strategies based on the data.

The PRAMS team actively seeks opportunities to present data to groups in the public and private sectors in boardrooms, medical grand rounds, professional association meetings, community gatherings and other groups. See contact information below.

This report looks at about 30 of the 69 questions asked by the survey. The executive summary outlines the critical findings of this report and should be of interest to all. For more detailed analysis of an individual subject, please see the appropriate section. Each section includes a detailed data table, highlights of important findings, a graph or chart depicting one or more of these findings, and a description of what is happening at the national level as well as locally in New Mexico. This report does not attempt to make recommendations for each issue. The hope is that the facts will stimulate and support policies and programs to improve maternal and infant health.

Learn more about NM PRAMS at our home page:
http://www.health.state.nm.us/phd/prams/home.html
You may also contact us by email at:
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By telephone at:
(505) 476-8890
CDC PRAMS home page at:
http://www.cdc.gov/nccdphp/drh/srv prams.htm

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Executive Summary

New Mexico PRAMS gives women and young families a voice on topics of vital importance to their health and well being. Through extensive data collection procedures detailed in the methodology section, NM PRAMS drew a statistically representative sample of 2,115 recently delivered NM resident mothers from the 1999 NM birth registration files of whom 71.8% responded to this mailed survey that covers over 100 topics.
This executive summary highlights selected NM PRAMS topics that are key to informed policy, decisions and education of providers and the public in the maternal and infant health arena.

- **Preconceptional health** for potential mothers and fathers is a critical message for the State's health care industry. Yet it is a tough one to sell. Nearly half of NM live births were unintended pregnancies. The policy implication is clear: more than half of new parents were not necessarily thinking about being in the best possible health when they conceived. Yet good physical, nutritional and psychosocial well being are predictive of an infant's health and well being. For the policy arena, NM PRAMS data strongly point to missed opportunities to support every parent's desire to have a healthy infant and family:
  - ✓ **Folic acid**, 0.4 mg per day starting before pregnancy, can reduce the risk of serious birth defects by 50%.[1] Almost 1/3 of NM mothers were not aware of this benefit of folic acid. Such supplementation should be included in a family planning formulary and other pre-pregnancy health services.
  - ✓ **Family Planning** needs are not met. Over 50% of women with an unintended pregnancy were not using a contraceptive method at the time of conception. Of equal significance, over 40% were using some method. This underlines problems with not having an effective method or unsuccessful use of a method. All men and women should have affordable access to the full range of effective contraceptive methods and counseling on use through health insurance. Such policy must also include the emergency contraceptive pill, a critical service to avert an unintended pregnancy.
  - ✓ **Alcohol Use**: Pre-pregnancy alcohol use is high: 45% of mothers who had a live birth, drank in the 3 months before pregnancy. The potential risk is high because fetal development begins before many mothers knew they were pregnant. Four percent of mothers drank in the last 3 months of pregnancy and in NM this means between 770 and 1,300 infants were exposed to alcohol during that period of development.
  - ✓ **Tobacco Use**: One quarter of NM mothers smoked during the 3 months before they got pregnant - one of the lowest of the 24 PRAMS states.[2] Among mothers who smoked before pregnancy, 42% continued during pregnancy, 28% quit during and afterwards, and 30% quit during but resumed afterwards. Policies in health insurance and managed care organizations need to target the fact that effective smoking cessation services and pharmaceutical support are not reaching vulnerable populations.

- ✓ **Substance Use**: NM PRAMS asks if anyone close had a problem with drugs or alcohol. Among women who were abused before pregnancy, 18.6% reported this issue; nearly 4 times greater than women who were not abused. Similarly, 16.7% of mothers abused during pregnancy reported this issue; almost 5 times greater than women not abused.

- **Family Violence**: Policy and programs are challenged by the prevalence of family violence in the state. Nearly 8% of women reported abuse by a partner before pregnancy. Over 6% were abused by a partner during pregnancy, which is 20 times the national 2010 Healthy People goal by a partner during a woman's adulthood.[3] Younger, poor, single and minority women were at even greater risk among NM PRAMS respondents. While health care professionals screen most mothers for many issues, less than half who were abused during pregnancy were screened and less than 15% of these women received any counseling or other support during that time. The long-term costs on infants and children exposed to violence are great. Providers do not have adequate time in the present environment to do a good job in this arena, though savings to the industry in the long run could be great.
- **Prenatal Care**: New Mexico continues to have the lowest performance in the nation for early and continuous prenatal care. NM PRAMS data directs policy makers to continue efforts to enroll new mothers in care as early as possible, with Medicaid as a leader in making inroads. It also directs policy makers to understand that a significant portion of the problem is unintended pregnancy and mothers who do not recognize they are pregnant until after the 12th week. The need for preconceptional health services, and their potential impact on costs and health indicators cannot be underestimated.
- **Breastfeeding**: New Mexico mothers are doing well with breastfeeding initiation; they are supported by extensive efforts of the NM Breastfeeding Task Force, providers in public and private sectors and the NM WIC program. Almost 80% of new mothers initiate breastfeeding, including teens, surpassing the Healthy People 2010 goal of 75%. Breastfeeding continuation, associated with infant health and well being, is lower. Of those who start breastfeeding, only 60% continue for at least 9 weeks. Policy recommendations include adequate WIC coverage to meet needs and enhanced workplace arrangements to support breastfeeding mothers in every kind of workplace in the state. The payoff to employers and employed mothers can be great because breastfed infants have lower rates of illness and less sick-leave required for mothers to take an infant to the doctor or stay at home.
- **Home visiting services** reached 11% of mothers during pregnancy and 18% of mothers after delivery. The short and long term benefits of home visiting are numerous to mother and infant. First time mothers, young mothers and mothers of infants with special needs are especially likely to benefit from home visitation. While cost savings may not be seen in one year, long-term savings can be substantial. For example, home visiting follow-up after 24-hour discharge can save up to $500 in net costs per infant.[4]

Executive Summary

- **Teen Births**: With over 4,700 births to teen mothers in 1999[5], New Mexico ranked fifth highest in the nation.[6] Good information about and access to a variety of methods of contraception are critical and must be paired with opportunities such as programs that build self-esteem and feelings of empowerment for both girls and boys. Schools should choose from and carefully replicate programs that have been demonstrated to be effective with similar populations of teens. Over half of 15-17-year old pregnant teenagers had late or no prenatal care. Only one fifth of 15- to 19-year old pregnant teens with a live birth received services specifically for pregnant teenagers during pregnancy, such as GRADS. One tenth of these mothers received teen-focused parenting services after delivery. There is much evidence of both immediate and long-term benefits of services for teens, including home visitation[7], most specifically a reduction in repeat unintended pregnancies. Long-term savings to the health care industry can be substantial.
- **Sudden Infant Death Syndrome (SIDS):** Only one half of New Mexican mothers placed their infants to sleep on the back in 1999. This equals over 10,000 infants who are at a greater risk of sudden infant death syndrome (SIDS) from sleeping on the stomach. The "back to sleep" message should be incorporated into all formal hospital discharge information protocols for parents of newborns. Policy should require licensed day care providers to place infants on their back for sleep. During the most vulnerable months for SIDS, age 1-6 months, the Back to Sleep message should be repeated in medical, well-child, nutrition, social services and home visiting programs in public and private sectors. The reduction of SIDS also requires that such providers work to ensure that infants are never exposed to smokers.

Footnotes

[1] MRC Vitamin Study Research Group. Prevention of neural tube defects: results of the Medical Research Council Vitamin Study. Lancet. 1991;338:131-137.

[2] Lipscomb LE, Johnson CH, Morrow B, Colley Gilbert B, Ahluwalia IB, Beck LF, Gaffield ME, Rogers M, Whitehead N. PRAMS 1998 Surveillance Report. Atlanta: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000. This is the source for all comparisons with other PRAMS states in this report.

[3] U.S. Department of Health and Human Services. Healthy People 2010 Conference Edition. Washington DC: January 2000.

[4] Brumfield CG, Nelson KG, Stotser D, Yarbaugh D, Patterson P, Sprayberry NK. 24-hour mother-infant discharge with a follow-up home health visit: results in a selected Medicaid population. Obstet Gynecol 1996 Oct;88(4 Pt 1):544-8.

[5] NM Vital Records and Health Statistics, NM Department of Health, Santa Fe, NM.

[6] Ventura SJ, Martin JA, Curtin SC, Menacker F, Hamilton BE. Births: Final data for 1999. National Vital Statistics Reports 49(1). Ranks calculated by the National Campaign to Prevent Teen Pregnancy. April 2001.

[7] American College of Obstetricians and Gynecologists, Evaluation of teen pregnancy programs < www.acog.org>
Evaluation of home visiting programs: Recent Program Evaluations, The Future of Children Series, v.9 (spring/summer 1999) <www.futureofchildren.org>

Acknowledgements

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Report Design

Hopwood Communications

Use of Tables

In the table below, we estimated that 43.6% of all New Mexican resident women who gave birth in New Mexico to a live newborn infant in 1999 had an unintended pregnancy. Because we could not survey every woman who had a live birth, we used our sample to make an estimate for the whole population. Using statistical techniques, we calculated a "margin of error" (95% confidence interval) ranging from 40.7% to 46.5%. If we drew the sample many times, 95% of the samples would have a "margin of error" that includes the true percentage of mothers with unintended pregnancy in the population (all New Mexican resident women who gave birth to a live newborn in New Mexico in 1999).

Among NM girls who had a live birth in 1999 and were 15-17 years old at delivery, we estimated that 77.6% had an unintended pregnancy. Our "margin of error" for this estimate was 65.9% to 89.3%. The range was wider than for all mothers because the number of 15-17-year old mothers surveyed (sample size) was much smaller than the number of all mothers.

Detailed tables with sample sizes and estimated numbers will be posted on our web site. For instance, we estimated that 10439 (95% confidence interval was 9722 to 11157) NM mothers with live birth in 1999 had an unintended pregnancy.

Excerpt from unintended pregnancy table

	%	Error Margin*	
		lower	upper
All mothers	**43.6**	*40.7*	*46.5*
Maternal characteristic			
Age (years)			
15-17	**77.6**	*65.9*	*89.3*
18-19	**60.6**	*52.0*	*69.2*
20-24	**47.4**	*42.1*	*52.6*
25-34	**33.9**	*29.8*	*38.0*
35 +	**35.7**	*27.0*	*44.4*

[Rest of table not shown above]

Uses of data

Percentages identify potential target populations and show who is in need of services. Targeting teens is justified because teens are more likely to have unintended pregnancy than older mothers.

Estimated numbers may also help project needs for resources and plan programs. In the detailed tables, only 35.7% of mothers 35 years or older had unintended pregnancy, the estimated number was 838, almost as many as the 936 young teens (15 to 17 years old).

Caution: groups that have overlapping 95% confidence intervals may not actually differ. We estimate that 60.6% of older teens (18 to 19 years old) had unintended pregnancy compared with 77.6% of younger (15 to 17 year old) teens. However, the 95% confidence intervals overlap (the upper confidence limit for older teens is 69.2% and the lower limit for younger teens is 65.9%). We cannot be sure that the prevalence of unintended pregnancy differs for younger and older teens.

Further tests may be done to check whether there is a statistically significant difference.

Tables reflect responses among mothers with various characteristics, experiences or behaviors. In most cases, estimates are given for 25,917 New Mexican mothers who gave birth to a live infant based on 1519 respondents to the NM PRAMS survey. Sample sizes are useful for checking whether large confidence intervals may be due to small numbers. Estimates are not reported when there were fewer than 30 respondents. Estimates may be imprecise when there were fewer than 60 respondents. These instances are noted with a †. Negative numbers have been replaced with a zero.

The population

The source population is all New Mexico resident mothers giving live birth in NM in 1999, excluding non-residents mothers, out-of-state births, and infants given up for adoption; and including only one infant from multiple births. The sample number, 2115, is the total number of mothers who received surveys. The NM PRAMS population (25917) is smaller than the number of live births reported by NM Vital Records and Health Statistics. The difference is due largely to exclusion of out-of-state births.

The appendix provides more information about technical aspects of methods.

Reading this report

Each section provides:

- A summary of important findings
- Background information from the national scene
- What is being done in New Mexico that features policies and program initiatives
- PRAMS Asks, the text of the question mothers answered
- PRAMS Voices, a quote from one or more respondents to illustrate mothers' ideas or concerns
- Detailed data tables
- Graphs to highlight selected data

Preconception

Intended pregnancy promotes preconception planning. Ample time is needed for mothers to adopt healthy habits before pregnancy: eating well and exercising; taking a multivitamin with folic acid *before* conception to prevent birth defects; and avoiding alcohol and tobacco smoke. Medical problems, prenatal care, finances, and especially for young parents, educational needs can be addressed before pregnancy.

Adoption of a healthy prenatal lifestyle *before* pregnancy is also necessary because women often do not know they are pregnant until after the critical period of fetal development. Only 18% of New Mexican mothers with live birth had confirmed pregnancy by 3 weeks.[1] In New Mexico, the Prenatal Care Utilization Task Force[2] has launched a campaign to make every woman's health care visit an opportunity for preconception counseling.

Only 17% of New Mexican mothers were "prepared" to have a baby according to these criteria: pregnancy was intended, the woman did not smoke tobacco during the 3 months before pregnancy, she was neither underweight nor obese, and she was aware of folic acid benefits.[3] If freedom from partner abuse and abstaining from alcohol were added to the criteria, only 9% were prepared.[4] Poverty and lower educational level were correlated with these preconception issues.

The next two parts look at folic acid awareness and intention of pregnancy. Use of tobacco smoke and alcohol, partner abuse before pregnancy, and maternal pre-pregnancy weight, are included in separate sections.

Footnotes

Preconception

[1] NM PRAMS, Maternal and Child Health Epidemiology Program, Family Health Bureau, NM Dept. of Health, Santa Fe, NM. For 1999 births, estimate was 17.7%, 95% confidence limits,15.6 %to 19.9%. Data not shown.

[2] The Prenatal Care Utilization Task Force includes representatives from the Department of Health, the New Mexico Prenatal Care Network, the New Mexico Hospital and Health Systems Association, the March of Dimes, and Lovelace, Cimarron and Presbyterian Health Plans and others.

[3] All questions are asked after delivery; it is likely that fewer women were aware of folic acid during the preconception period. NM PRAMS, Maternal and Child Health Epidemiology Program, Family Health Bureau, NM Dept. of Health, Santa Fe, NM. For 1999 births, estimate was 17.1 (95% confidence interval 14.9% to 19.2%).

[4] NM PRAMS, Maternal and Child Health Epidemiology Program, Family Health Bureau, NM Dept. of Health, Santa Fe, NM. For 1999 births, estimate was 8.7% (95% confidence interval 7.2% to 10.3%).

Folic Acid Awareness

PRAMS Asks,
"Have you ever heard or read that taking the vitamin folic acid (folate) can help prevent some birth defects?"

Poverty and lower educational level were associated with lack of awareness of the importance of folic acid.

PRAMS findings

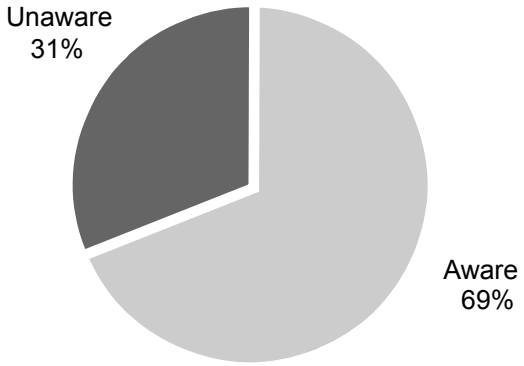
- Even after delivery, only about 2/3 of mothers were aware that folic acid can help prevent birth defects. Most likely, a smaller proportion knew this before conception.
- Even among women whose pregnancy was *intended*, only 3/4 knew that folic acid can help prevent birth defects. If pregnancy was unintended, only about 60% knew this.
- Teen mothers were far less likely to know that folic acid can prevent birth defects.

National scene

Folic acid should be taken in a multivitamin before conception and during the first three months of pregnancy to prevent neural tube defects (NTDs), which affect the spine and/or brain. Fifty percent or more of NTDs can be prevented if women take a multivitamin with folic acid before and during the early weeks of pregnancy.[1,2] This may also help prevent cleft lip and palate and defects of the heart, limbs, genital and urinary organs.[3,4] Since about 1/2 of new mothers did not intend to get pregnant at conception, the USPHS recommends that *all* women of child-bearing age take 0.4 mg of folic acid regularly.[5]

According to a telephone poll in 1995, 52% of women age 18-45 had heard anything about folic acid. Awareness of folic acid increased steadily to 79% of these women in 2001. However, in 2001, only 32% of women with a pregnancy in the past one to two years were taking folic acid daily. Among pregnant women, about 80% were taking folic acid daily; this proportion has not changed appreciably since 1997.[6] For other PRAMS states, 62% to 83% of mothers who gave live birth had heard that folic acid can prevent some birth defects.[7]

Folic acid awareness among NM mothers



What is being done in NM?

The NM Birth Defects Prevention Task Force is working with WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) and the Cooperative Extension Service to educate the general public about the benefits and timing of folic acid supplements. Educational materials about preconception and pregnancy have also been developed within the Navajo Nation.

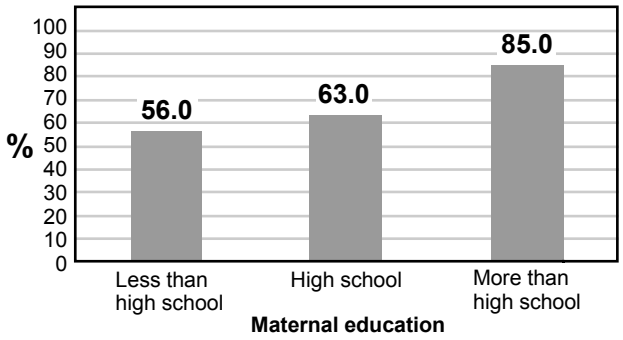
PRAMS Voices,

"I think there should be more information on the vitamin folic acid. I am curious to know more about it."

- PRAMS Mom

The New Mexico Birth Defects Prevention and Surveillance System monitors birth defects, actively ascertaining neural tube defects (NTDs) and orofacial clefts, and there is a NTD Recurrence Prevention Project. Medicaid pays for multivitamins with folic acid for mothers with a history of NTD-affected pregnancy.

Mothers who were aware of folic acid benefits



Intended Pregnancies

PRAMS Asks,
"Thinking back to just before you got pregnant, how did you feel about becoming pregnant?"

Response options indicate that mother wanted to be pregnant at these times: (1) sooner, (2) later, (3) then, (4) not then or at any time. The fifth response option was that she didn't know.

Intended pregnancy is defined as "sooner" or "then, and unintended, as "later" or "not then or at any time". "Don't know" responses are excluded from the definition.

Poverty and lower educational level were correlated with unintended pregnancy.

PRAMS found that

- About 1/2 of all pregnancies in New Mexico were intended.
- 12% of all NM mothers did not want the pregnancy "then or ever"
- The proportion of unintended pregnancies generally decreased as the mother's age increased.
- Among unmarried women, 58% of pregnancies were unintended compared with 32% of married women's pregnancies.

National scene

Intended pregnancy allows ample time to plan for a new baby by adopting healthy habits, screening for medical problems, and addressing social and financial issues. Unintended pregnancy is correlated with unhealthy maternal lifestyle (poor nutrition, cigarette smoking, use of alcohol and other drugs) and delayed prenatal care. For the infant, outcomes associated with unintended pregnancy include premature delivery, low birth weight, and small size for gestational age. These may be due to unhealthy maternal behaviors associated with unintended pregnancy.[8] Children born of an unintended pregnancy may also experience lower cognitive, behavioral, and emotional development, and child abuse and neglect.[9]

Women who were non-users of contraception accounted for more than 1/2 of all unintended pregnancies.[10]

Factors underlying unintended pregnancy include issues related to contraception: access to effective methods, correct use, the decision to use contraception, and ambivalence about pregnancy. Male involvement contributes to the intent of pregnancy, as do choice and consistent use of contraception.[9]

For teens, increased access to contraception by itself is not enough to prevent unintended pregnancy. Research has shown that a comprehensive approach is more promising. This includes youth development programs, which focus on overall healthy development as well as educate about abstinence, protection from pregnancy and diseases, and reducing sexual risk-taking behavior.[11,12] Healthy development includes school and extracurricular activities, including school health services, involvement with peers and adults in the community and family, and employment. Religious faith and a strong moral sense may help protect teens from early sexual activity and teen pregnancy.[13]

In other PRAMS states, the rate of unintended pregnancy among women with live birth ranged from 34% to 53%.[14]

What is being done in NM?

State and community agencies educate clients with income below 185% of the federal poverty line (FPL) and increase their access to family planning methods. Teen pregnancy prevention includes comprehensive programs. Some of these programs include:

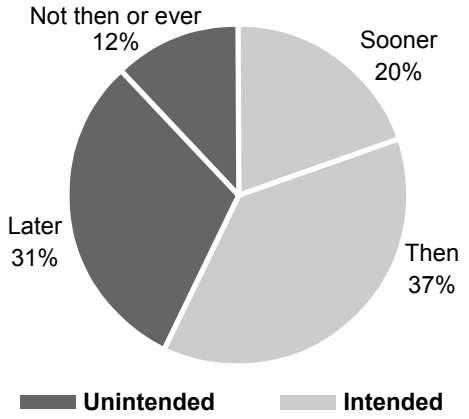
- Planning strategies to increase access to health care.
- Low-cost clinical family planning services
- Comprehensive programs for teens, training of health care providers, and evaluation of these activities.
- Young Fathers Project activities targeting young fathers, or males acting as fathers, to improve parenting skills, educational levels, employment, social stability, and to reduce repeated pregnancies.
- School-based health centers providing education and direct care or referrals for primary health care, mental health, substance abuse, and reproductive health services. Healthier School sites coordinate services in schools and communities.
- The Abstinence Education Program, working through schools and faith-based organizations to educate youth and parents.
- Public awareness campaigns and education of health care providers to increase awareness that the emergency contraceptive pill is effective, safe, and not an abortifacient.
- Research and educational outreach about the importance of family planning in prevention of birth defects.
- Key community players include Maternal and Child Health Councils, providers funded by the Medicaid 1115 waiver, New Mexico Planned Parenthood, New Mexico Teen Pregnancy Coalition, and the New Mexico March of Dimes, the NM Department of Health Family Planning Program, Adolescent Pregnancy Prevention Program, and Office of School Health.

PRAMS Voices,

"I think now that planning to have a baby is better than to be surprised and not knowing the consequences of the things a mother does before she knows she is pregnant."

- PRAMS Mom

At conception, when would mother have wanted the pregnancy?



Footnotes

Folic Acid Awareness

Footnotes

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Intended/Unintended Pregnancies

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Contraception At Conception

? *PRAMS Asks,*
"When you got pregnant with your new baby, were you or your husband or partner using any kind of birth control?"

How does lack of contraception contribute to unintended pregnancy?

About 1/6 of mothers who had an unintended pregnancy were still not using contraception after delivery.

National scene[1]

The financial costs of an unintended pregnancy were estimated at $3,795 in a managed care setting and $1,680 in a publicly funded program, and *any* method of contraception is very cost-effective when compared to no method.[2] About half of fee-for-service health insurance plans do not cover any reversible contraception and only 15% cover all five prescription methods (the pill, intrauterine device, diaphragm, implant and injectable). Health maintenance organizations offer the most comprehensive contraceptive coverage, but 7% of HMOs do not cover prescription contraceptives and only 39% cover all five. In 1998, Congress required full contraceptive coverage in plans participating in the Federal Employees Health Benefits Program. By July 1999, eight states (not including New Mexico) required full contraceptive coverage in private insurance.[3]

Emergency contraceptive pills (ECPs) can prevent 85% of unintended[4] pregnancies. Provision of ECPs in advance can save $263 to $498 in a managed care setting and $99 to $205 in a public payer setting.[5] Access is usually limited both by the cost and requirement of a prescription. In Washington State, pharmacists may dispense ECPs without a physician's order. Access would be even greater if ECPs could be sold over-the-counter, a move supported by the American College of Obstetricians and Gynecologists and other professionals.[6]

In other PRAMS states in 1998, 38% to 45% of mothers with live birth and unintended pregnancy were using contraception at the time of conception.[7] This raises the question of why there were so many contraceptive failures.

What is being done in NM?

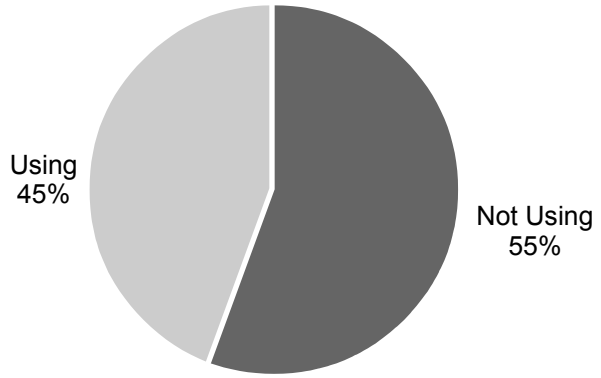
State and community agencies educate low-income clients and increase their access to family planning methods. Teen pregnancy prevention includes comprehensive programs.[8] Some of these programs include:

- Planning strategies to increase access to health care
- Low-cost clinical family planning services
- Comprehensive programs for teens, training of health care providers, and evaluation of these activities
- Young Fathers Project activities targeting young fathers, or males acting as fathers, to improve parenting skills, educational levels,

employment, social stability, and to reduce repeated pregnancies
- School-based health centers providing education and direct care or referrals for primary health care, mental health, substance abuse, and reproductive health services. Healthier School sites coordinate services in schools and communities
- The Abstinence-only Education Program, working through community-based groups to educate youth and parents
- Public awareness campaigns and education of health care providers to increase awareness that the emergency contraceptive pills are effective, safe, and are regular birth control pills used in a special way, not the "abortion pill"
- Research and educational outreach about the importance of family planning in prevention of birth defects.

Key community players include County Maternal and Child Health Councils, services paid by Medicaid's 1115 Family Planning waiver, New Mexico Planned Parenthood, New Mexico Teen Pregnancy Coalition, and the New Mexico March of Dimes, the NM Department of Health Family Planning Program, Adolescent Pregnancy Prevention Program, Abstinence Education Advisory Committee and Office of School Health.

What percent of mothers with unintended pregnancy were using contraception at conception?



PRAMS Voices,

Reasons for not using birth control at conception:

"I couldn't afford birth control."

"He said he was sterile."

"I didn't think I could get pregnant."

"I didn't think about it."

"My husband didn't want to use condoms."

Birth Control At Conception

Among mothers with unintended pregnancy.

PRAMS Asks,
"Why were you or your husband or partner not using any birth control?"

Unintended pregnancy among women who used contraception at conception may be due to incorrect use of a method that usually works or correct use of a method that failed.

PRAMS found that among mothers with unintended pregnancy, at conception,

- Almost 1/2 of the mothers were using and slightly over 1/2 were not using contraception.
- Among women who had older children, 1/2 used a method.
- Poverty did not appear correlated with contraceptive use
- Neither educational level nor health insurance was *statistically* significant for the use of contraception. However, point estimates suggest that women with greater than high school education or health insurance may have been less likely to be using contraception.
- Native American women were less likely to use contraception than Hispanic white women.

Reasons for not using birth control

Among women who had an unintended pregnancy and were not using contraception at conception, the most frequently chosen responses were that they

- did not think they could get pregnant,
- did not think they were going to have sex,
- had a partner who did not want to use birth control.

Many women also said they

- did not want to use birth control or
- wanted to get pregnant (even though they indicated in the previous question that the pregnancy was unintended)

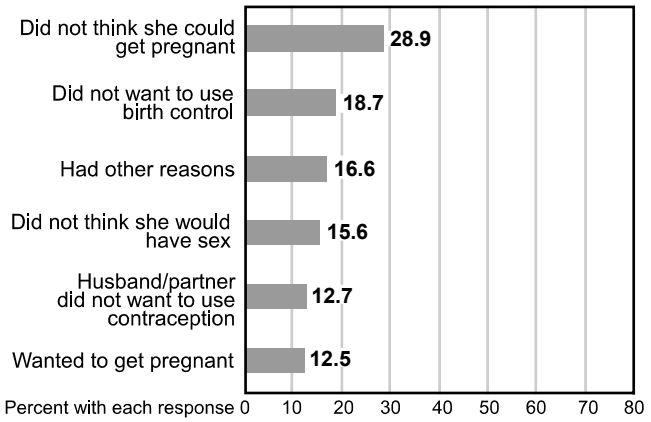
Education about safety and benefits of contraceptives might increase their use. A poll in the year 2000 found that about half of women knew oral contraceptives had non-contraceptive health benefits. The other half did not know this.[9] Perceptions about risks of contraception contribute to unintended pregnancy. Unfavorable media reports about the intrauterine device and oral contraceptives have been associated with discontinuation of these methods and increases in unintended pregnancy and abortion.[10,11,12]

PRAMS findings indicate that couples need education about contraception and parenthood and that many women feel ambivalent about pregnancy. For women who were not expecting to have sex, long-acting reversible birth control methods or emergency contraception could help prevent unwanted pregnancy. Male involvement should be encouraged.

Reasons mothers were not using birth control at conception

	%	*Error Margin**	
		lower	*upper*
Did not think she could get pregnant	**28.9**	*23.7*	*34.2*
Did not want to use birth control	**18.7**	*14.3*	*23.2*
Had other reasons	**16.6**	*12.3*	*20.9*
Did not think she would have sex	**15.6**	*11.4*	*19.8*
Had a husband or partner who did not want to use birth control	**12.7**	*8.7*	*16.8*
Wanted to get pregnant	**12.5**	*8.7*	*16.4*

Reasons for not using contraception at conception?

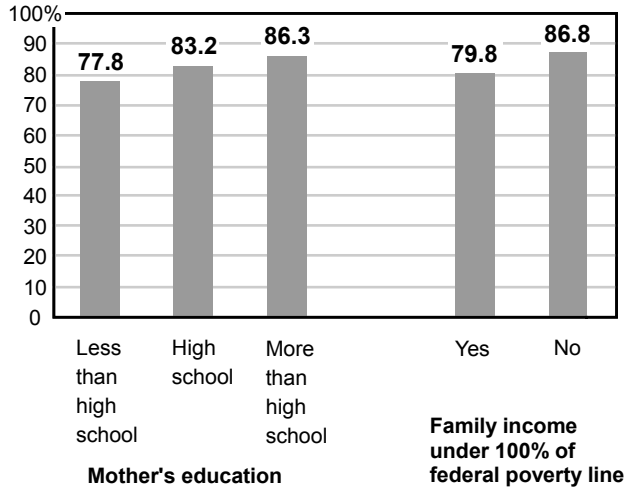


Postpartum Use of Contraception Among All Mothers

PRAMS Asks,
"Are you or your husband or partner using any kind of birth control now?"

Among all respondents, 83% said "yes". Mothers with social disadvantage were less likely to use postpartum contraception.

Percent of respondents using postpartum contraception



PRAMS found that use of postpartum contraception was

- Less likely among mothers with less education or living in poverty
- More likely among married than unmarried women
- More likely among non-Hispanic whites than Native Americans

Spacing of births is important to ensure healthy mothers and babies. An interval less than 6 months increases the risk of low birth weight, prematurity, and small size for gestational age infants.[13] Even for mothers who are exclusively breastfeeding, contraception is important. Other reasons for encouraging intended pregnancies are mentioned in "Preconception Planning" and "Intention of Pregnancy".

Footnotes

Contraception At Conception

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[8] Family Planning Program. Challenge 2005: reducing teen pregnancy in New Mexico. Santa Fe, NM: NM Department of Health, 2000. Source for all except ECP campaign information.

Reasons For Not Using Birth Control At Conception

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Postpartum Use of Contraception Among All Mothers

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Alcohol Use Before & During Pregnancy

PRAMS Asks,

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

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

New Mexican mothers were much less likely to drink during than before pregnancy.

However, 4% of births means between 770 and 1,300 infants who were exposed to alcohol during the last 3 months of pregnancy.

PRAMS found that

- Overall, 45% of mothers drank during the 3 months before pregnancy.
- Only 18%[1] of mothers had confirmed pregnancy by the 3rd week of pregnancy.
- Even among mothers who intended their pregnancy, over 40% drank alcohol in the three months *before* pregnancy.
- Only 4% drank during the last 3 months of pregnancy.

Before pregnancy

- Women in poverty were *less* likely to drink alcohol.
- The likelihood of drinking alcohol increased with *higher* levels of maternal education.
- Non Hispanic White mothers were *more* likely than Native American and Hispanic White mothers to drink.
- The proportion of women who drank alcohol may have increased with age.*

During pregnancy, mothers over 35 years of age or non-Hispanic whites were more likely to drink alcohol.

Among women who drank alcohol during pregnancy,

15% did not recall prenatal counseling about how alcohol could affect the baby.

National scene

Prenatal exposure to alcohol is among the most commonly identifiable causes of mental retardation and neurodevelopmental disorders. An infant may be born with both mental disabilities and abnormal physical features if the mother drank alcohol while pregnant. There is no known safe level of prenatal alcohol consumption or safe time during pregnancy to drink.[2]

Fetal Alcohol Syndrome (FAS) is a cluster of birth defects resulting from prenatal alcohol exposure. The terms *alcohol-related neurodevelopmental disorder* (ARND) and *alcohol-related birth defects* (ARBD) also identify infants affected by prenatal exposure to alcohol. Prevalence rates of FAS in the United States have been estimated at 5.2/10,000. Higher rates have been reported among some subgroups, for instance, 30/10,000 among Native Americans[2]. Fetal alcohol syndrome is costly, with an estimated annual financial burden of at least $75 million in 1991.[3]

PRAMS asks about alcohol use just before pregnancy because alcohol use just before

pregnancy may measure early pregnancy use more accurately than use in the first trimester.

In other PRAMS states in 1998, only about 20% of mothers knew they were pregnant before their 3rd week of pregnancy. Among these states, 32% to 55% of women with live birth used alcohol in the 3 months before pregnancy and 2.3% to 8.3% drank during the last 3 months of pregnancy.[4]

What is being done in NM?

The prevalence of FAS in New Mexico in 1992 was estimated at 1 per 1000,[5] almost twice the national average. Nevertheless, 38% of women requesting a pregnancy test in NM public health clinics in 1996 reported currently using alcohol. Even among women who were pregnant and intended to be pregnant, 20% admitted current drinking.[6]

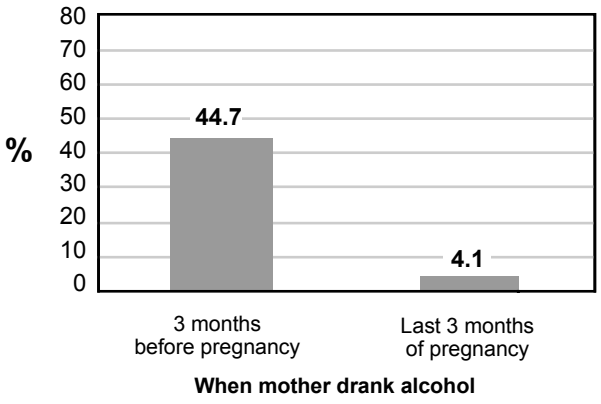
In 1996, the State Legislature passed HB 171 authorizing funds for a statewide Fetal Alcohol Syndrome Prevention Program. Community activities include media campaigns, developing and distributing informational materials, and coordinating educational programs for professionals, families and students. When cases of FAS are identified, mothers are linked with services to prevent future FAS-affected infants. The "Pregnant Pause Campaign", launched in 1996, emphasizes that pregnant women should stop drinking.

Since New Mexican women who eventually have a child with FAS invariably gave birth to their first child in their teen years,[7] prevention efforts also target youth. An FAS curriculum was developed for middle schools and peer trainers teach other students about FAS prevention.

The V.A.S.T. (violence, alcohol, substance abuse, and tobacco use) initiatives train health care providers across public and private sectors to identify victims of sexual and physical violence, assess the problems, and link them with resources.

V.A.S.T. is an initiative of the NM Department of Health and has been led largely by the Family Planning Program and the Injury Prevention Bureau. Community activities are led by many organizations, including CASAA[8], the March of Dimes, the Arc of New Mexico, the UNM Department of Pediatrics, and the Graduation Reality and Dual Role Skills (GRADS) program, a collaboration between the NM Human Services Department, Children, Youth, and Families Department and Department of Education.

Percent of Mothers Who Drank Alcohol



Tobacco Smoking

PRAMS Asks,
*"In the **3 months before** you got pregnant, how many cigarettes or packs of cigarettes did you smoke on an average day?"*

PRAMS Asks,
*"In the **last 3 months of your pregnancy**, how many cigarettes or packs of cigarettes did you smoke on an average day?"*

PRAMS Asks,
*"How many cigarettes or packs of cigarettes do you smoke on an average day **now?"***

PRAMS Asks,
"About how many hours a day, on average, is your new baby in the same room with someone who is smoking?"

Pregnancy motivates over 1/2 of smoking mothers to stop, but about 1/2 of those who quit relapse after delivery.

- 26% of mothers smoked during the 3 months before pregnancy.
- More than half of women who smoked before pregnancy quit smoking during their pregnancy.
- Of those who quit smoking during pregnancy, about half relapsed and were smoking after delivery.
- The 11.1% of mothers who smoked during late pregnancy translates into 2,800 (2,370 to 3,300) infants exposed to maternal smoking *in utero*.[9]

PRAMS findings about maternal smoking

- Women living with the stress of poverty were almost twice as likely to smoke before or during pregnancy as mothers living above the federal poverty line (FPL)
- Smoking before or during pregnancy was more likely among women with less than high school education
- Teens were more likely to smoke before pregnancy or currently than mothers over 25 years of age. During the last 3 months of pregnancy, differences by age were not significant.
- Native American and Hispanic mothers were far less likely than non-Hispanic white mothers to smoke before or during pregnancy.
- More than one fifth of women who planned their pregnancies smoked in the three months before they got pregnant. Almost 10% of these mothers smoked during pregnancy as well.

After delivery, babies were more likely to be exposed to smoke if the mother was currently smoking or if she

- was non-Hispanic white
- was on Medicaid during prenatal care and delivery
- did not intend to get pregnant

Statewide, over 1,000 (1,190 to 1,870) infants born in 1999 were exposed to tobacco smoke during the first 6 months of life.[10]

Did smokers receive prenatal counseling?

- Most women (89%) who smoked before pregnancy did receive prenatal counseling about tobacco smoking. However, 11% of mothers who smoked before pregnancy were not counseled. (Data tables are on page 41.)

National scene

Smoking during pregnancy exposes the infant to the risk of growth retardation, prematurity, and sudden infant death syndrome (SIDS).[11,12] Second-hand smoke increases the risk of respiratory

illnesses such as pneumonia, asthma and ear infections, and may increase the risk of SIDS.[13,14]

Women and girls have been extensively targeted in tobacco marketing. Nationally, although smoking has decreased among adults, the gender gap in smoking prevalence between adult women and men has narrowed since 1965. In 1998, 22.0% of women and 26.4% of men were smoking. For teens, not only did the prevalence of smoking increase in the 1990s, but the gender gap almost closed: among high school seniors in the year 2000, 29.7% of girls and 32.8% of boys were current smokers.[15] From 1993 to 1998, 3 of 12 PRAMS states reported a statistically significant decrease in smoking during the last 3 months of pregnancy.[16]

Smoking tobacco is expensive for society. National costs attributed to smoking among complicated births in 1995 were $1.4 billion.[17] Counseling by health care providers is effective, doubling quit rates among pregnant Medicaid patients[18] and tripling quit rates in an HMO setting.[19]

In other PRAMS states, 23.6% to 41.4% of mothers smoked during the 3 months before pregnancy, 11.5% to 27.7% smoked during the last 3 months of pregnancy, and 17.9% to 35.2% smoked after pregnancy (1998 births).[20]

What is being done in NM?

New Mexico's smoking rates among women with a recent live birth compare favorably with other states. However, NM teen smoking rates have increased in the last decade; in 1997, over 50% of NM high school seniors said they smoked in the last year.[21]

Pregnancy is a "window of opportunity" when women are eager to quit smoking. Tobacco settlement funds are used for smoking prevention and cessation efforts. These include supporting community programs and coalitions, increasing smoke-free environments, decreasing access of tobacco to youth, smoking cessation programs in schools and elsewhere, and media campaigns. Health care providers receive technical assistance in identifying and helping smokers. Prevention and cessation activities include:

- Television, radio and billboard messages encouraging all New Mexicans, especially pregnant women, to quit smoking and to avoid passive smoke exposure.
- Smoking cessation services offered by most health insurance plans, including SALUD! and regular Medicaid. Medicaid services include smoking cessation classes, nicotine replacement and other pharmacological treatments.
- WIC counseling about the effects of smoking on the fetus and infant and referral of smokers to cessation services.
- Education of women who are pregnant or have young children by health and social service providers.
- Perinatal tobacco education workshops for teens, especially targeting pregnant teens in the GRADS programs.
- Manuals and technical assistance to clinicians on counseling their patients provided by the New Mexico Medical Society.
- Smoking cessation classes offered free of cost in at least 7 counties.[22]

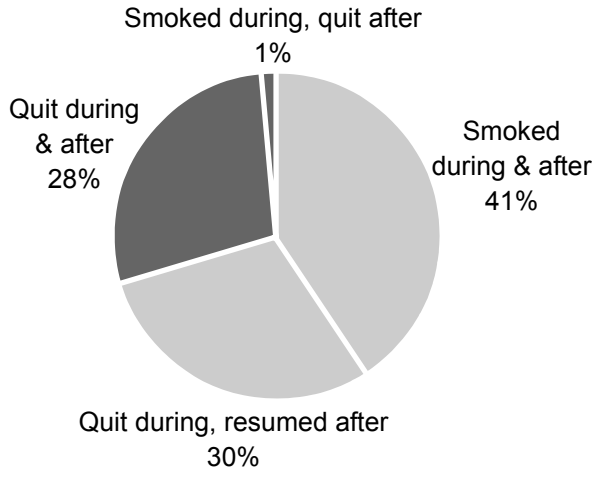
Technical assistance is provided by the Tobacco Use Prevention and Control Program (TUPAC), the American Cancer Society (Make Yours a Fresh Start Family Program The Freedom From Smoking Program), the American Lung Association, and the New Mexico Department of Health Violence, Alcohol, Substance abuse, and Tobacco use (V.A.S.T.) initiative led by the Family Planning Program.

PRAMS Voices,

"I smoked before I became pregnant. I quit when I found out I was pregnant. I don't smoke in my house or car. We always sit in non-smoking when we go out to eat. I know there is still smoke from the smoking sections, but we do our best."

- PRAMS Mom

Among mothers who smoked before pregnancy, smoking status during & after pregnancy



Partner Abuse Before Or During Pregnancy

PRAMS Asks,
"During the 12 months before you got pregnant with your new baby, did any of these people physically abuse you?"
Physical abuse means pushing, hitting, slapping, kicking, or any other way of physically hurting someone.

PRAMS Asks,
"During your most recent pregnancy, did any of these people physically abuse you?"
Physical abuse means pushing, hitting, slapping, kicking, or any other way of physically hurting someone.

Poverty and stressful events were strongly associated with abuse.

Stressful events included having someone close to them with a drug or alcohol problem and financial troubles, including unpaid bills or the loss of a job. These events were strongly correlated with living in poverty.

For PRAMS findings, "abused by a partner" means the respondent answered that she was physically abused by a partner. Prevalence of abuse during pregnancy may be lower than before pregnancy because the duration of pregnancy is 9 months or less, while the period "before" spans 12 months.

PRAMS found that

During the year before pregnancy, 7.7% of New Mexican mothers were abused by a partner. This translates into almost 2,000 women. About 6.3% responded that they were abused by a partner during pregnancy. These rates are about 20 times greater than the Healthy People 2010 objective, which is not just limited to the perinatal period.[23]

PRAMS also found that during the 12 months before or during pregnancy

- Unmarried women were more than twice as likely to be abused by their partner
- Women whose pregnancy was unintended were almost twice as likely to be abused.
- There were disparities between ethnic groups in the prevalence of partner abuse

Health care providers did not discuss physical abuse with many women who had this experience

Less than 1/2 of abused mothers recalled discussing partner abuse with a health care provider during prenatal care. Only about 15% of these women received any type of counseling service for the abuse. An even smaller percentage received services to protect them from family violence during their pregnancy or after delivery.

National scene

Physical abuse can result in fetal loss, early labor, prematurity and low birth weight as well as injuries to the mother. Both the physical and emotional aspects of partner abuse can jeopardize mother's and infant's health through inadequate prenatal care, maternal use of tobacco, alcohol, or illicit drugs, poor maternal weight gain, anemia, and other medical problems.[24] Childhood exposure to

domestic violence is associated with difficulties with behavior, emotional health, schoolwork,[25] and delinquency.[26] Effects may last into adulthood through increased alcoholism, drug abuse, mental health problems, smoking, and poor health.[27]

The medical costs of domestic violence are notable: battered women may account for 22 to 35% of women seeking care in emergency departments.[28] Women who were abused by a partner were more likely to be hospitalized for injury-related, digestive system, and psychiatric diagnoses.[29]

Among other PRAMS states in 1998, New Mexico's prevalence of partner abuse during the 12 months before pregnancy (8.2%) was one of the highest; estimates ranged from 3.6% to 7.4% in other states. During pregnancy, 6.6% of New Mexican mothers were abused by a partner, compared with 2.4% to 5.5% in other PRAMS states.[30]

What Is Being Done In NM?

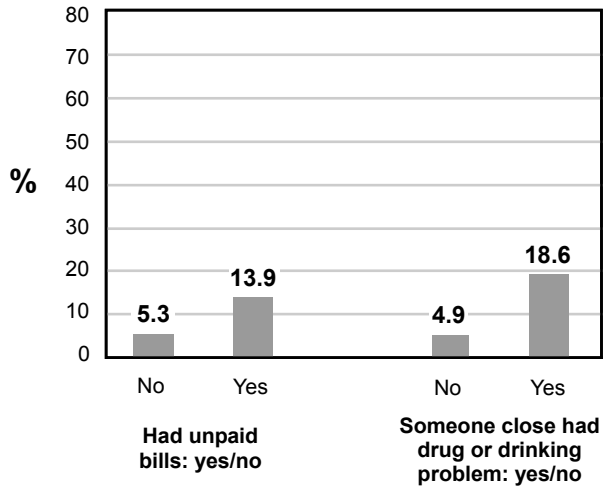
There are 28 community-based groups working on domestic violence. Law enforcement, judicial, and social service agencies are working together. There are only 19 shelters for victims of domestic violence and 14 providers who counsel families outside of shelters. Gaps in services include shelters and services, especially in rural areas, transitional housing and vocational preparation for women, batterer's treatment programs, and children's counseling services statewide. The Coalition Against Domestic Violence is a clearinghouse for all shelters and providers; provides technical training to domestic violence prevention and treatment advocates, health care providers, employees and employers in workplaces, youth, and law enforcement officers; and publishes a resource directory.

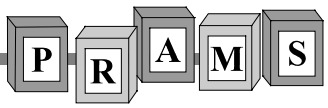
The V.A.S.T (Violence, Alcohol, Substance Abuse, and Tobacco use) initiative trains clinical providers to identify victims of sexual and physical violence, assess the problems, and link them with resources. Education about sexual coercion among adolescents is included. V.A.S.T is sponsored by the NM Department of Health, with the Family Planning Program and the Injury Prevention Bureau playing key roles.

PRAMS Voices,

"I was abused in the fifth month of pregnancy and I brought it to the attention of my doctor and nothing was done about it!" *- PRAMS Mom*

Percent of mothers with partner abuse before pregnancy





Footnotes

Alcohol Use

** These comparisons were not statistically significant.*

[1] NM PRAMS 1999 births. Estimate was 17.7%, 95% confidence interval=15.6%to 19.9%. Maternal and Child Health Epidemiology Program, Family Health Bureau, New Mexico Department of Health, Santa Fe, NM.

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[6] Martin J, Hall I. Substance use among childbearing-age females (SUCAF). Division of Epidemiology, Evaluation and Planning, New Mexico Department of Health, Santa Fe, NM, 1996.

[7] Center of Alcoholism, Substance Abuse, and Addictions at University of New Mexico, 1997.

[8] Center of Alcoholism, Substance Abuse, and Addictions at University of New Mexico, 1997.

Tobacco Smoking

[9] NM PRAMS data, 1999 births. Table not shown but will be available on NM PRAMS web site.
Estimated number of mothers who smoked during last 3 months of pregnancy=2,836 (95% CI=2371 to 3302.

[10] NM PRAMS data, 1999 births. Table not shown but will be available on NM PRAMS web site.
Estimated number of infants exposed to tobacco smoke = 1,532 (95% CI=1191 to 1873).

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[20] Lipscomb LE, Johnson CH, Morrow B, Colley Gilbert B, Ahluwalia IB, Beck LF, Gaffield ME, Rogers M, Whitehead N. PRAMS 1998 Surveillance Report. Atlanta: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000.
Range for smoking during 3 months before pregnancy: 23.6% (95%CI=21.0% to 26.2%) in Alabama to 41.4% (95%CI=38.1% to 44.8% in West Virginia; during last 3 months of pregnancy: 13.0% (95% CI=10.7% to 15.3% in Washington) to 27.75 (95% CI=24.6% to 30.7% in W. Virginia; after pregnancy: 17.9% (95% CI=15.3% to 20.5% in Washington state) to 35.2% (32.0% to 38.4% in W. Virginia).

[21] A preliminary report on alcohol, tobacco, other drug use and school safety among 7th-12th grades in New Mexico Public Schools, April 1998. Office of Epidemiology. NM Department of Health.

[22] Otero (Alamogordo), Dona Ana, Hidalgo (Lordsburg) , Santa Fe, Grant (Silver City), and Socorro counties and Eight Northern Pueblos.

Partner Abuse

[23] The objective is fewer than 3.6 physical assaults by a current or former intimate partner per 1,000 persons 12 years or older. US. Department of Health and Human Services. Healthy People 2010 Conference Edition. Washington DC: January 2000. <http://www.health.gov/healthypeople/Document/default.htm>

[24] Original references cited in Lipscomb LE, Johnson CH, Morrow B, Colley Gilbert B, Ahluwalia IB, Beck LF, Gaffield ME, Rogers M, Whitehead N. PRAMS 1998 Surveillance Report. Atlanta: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000.

[25] Fantuzzo JW, Boruch R, Beriama A, et al. Domestic violence and children: prevalence and risk in five major U.S. cities. J American Academy of Child and Adolescent Psychiatry 1997;36:116-22.

[26] Osofsky JD. The impact of violence on children. The Future of Children 1999;9:33-49. References 16 and 19.

[27] Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. Am J Prev Med 1998;14:245-258.

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[29] Kernic MA, Wolf ME, Holt VL Rates and relative risk of hospital admission among women in violent intimate partner relationships. .Am J Public Health 2000 Sep;90(9):1416-20.

[30] Lipscomb LE, Johnson CH, Morrow B, Colley Gilbert B, Ahluwalia IB, Beck LF, Gaffield ME, Rogers M, Whitehead N. PRAMS 1998 Surveillance Report. Atlanta: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000. 95% CIs for were 3.6% (2.4$-4.8%); for 7.4% (5.7% to 9.1%), and for NM's 8.2% (6.5% to 9.9%).
Estimates and 95% CIs for physical abuse during the 12 months before pregnancy were: 3.6% (2.4%-4.8%) in Maine, 7.4% (5.7% to 9.1%) in Arkansas, and 8.2% (6.5% to 9.9%) in NM. For partner abuse during pregnancy, estimates and 95% CIs were2.4%% (1.1% to 3.6%) in New York, 5.5% (3.9% to 7.0%) in Arkansas, and 6.6% (5.1% to 8.1%) in NM.

Maternal Weight & Gestational Diabetes

PRAMS Asks,
"Just before you got pregnant, how much did you weigh?"
"How tall are you without shoes?"
Responses to these two questions allow calculation of pre-pregnancy body mass index, which is classified as under-, normal-, over weight and obese.[1]

PRAMS Asks,
"During your pregnancy, did a doctor, nurse, or other health care worker treat you for any of these problems?"
Response options include "diabetes I had during this pregnancy" and "diabetes I had before this pregnancy". Mothers who were treated during, but not before pregnancy were classified as gestational diabetics.

Women who were overweight were three times as likely to be treated during pregnancy for gestational diabetes. The Body Mass Index (BMI) compares a woman's weight and height in kilograms and meters. If the index is more than 26 kilograms per square meter, the person is overweight.

PRAMS found that

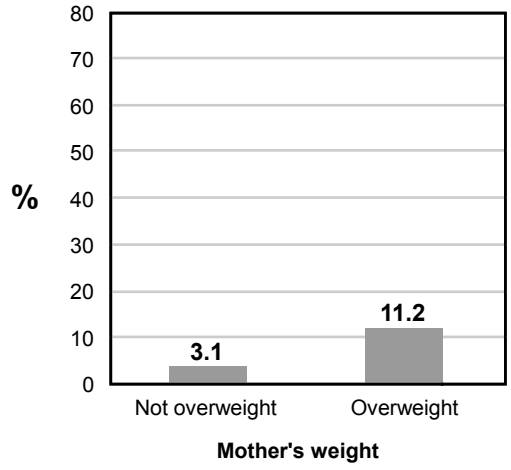
- 6.0% (4.6% to 7.3%) of mothers were treated for gestational diabetes.
- Over 2/3 of women between the ages of 25-34 were not overweight at conception. Younger women were less likely to be overweight.
- Two thirds of women with a previous live birth were not overweight at the time they got pregnant.
- Native American mothers may have been more likely to be treated for gestational diabetes than other groups*

National scene

Pre-pregnancy weight and birth weight are directly related. Overweight mothers are at increased risk of having a large infant (weighing over 4000 g), whose size may cause injury to mother or baby. Obese mothers are at greater risk of losing their fetus in late pregnancy.[2] Overweight mothers are more likely to have gestational diabetes or preeclampsia (high blood pressure).

Diabetes in the mother during pregnancy increases the risk that the infant will have low blood sugar after birth or subsequently develop diabetes.[3] When the mother is both obese and a gestational diabetic, the baby has an increased risk of serious birth defects involving the nervous system or heart.[4]

Mothers who were treated during pregnancy for gestational diabetes



Women with gestational diabetes have a 50% risk of developing non-insulin-dependent diabetes mellitus within 10 years of delivery. Screening for GDM, resulting in healthy lifestyle changes, could delay or prevent progression to overt diabetes. This would save between 32 million and 331 million health care dollars over 10 years.[5]

What is being done in NM?

Health care providers should screen pregnant women for diabetes during prenatal care with blood tests[6] and counsel women about nutrition (see "Prenatal care counseling" section of this report). The NM Diabetes Prevention and Control Program (DPCP) collaborates with WIC to educate women about gestational diabetes, especially about the potential short-term and long-term implications.

Footnotes

** These comparisons were not statistically significant.*

[1] Body mass index (BMI) equals weight in kilograms divided by height in meters squared. BMI over 26 means "overweight" and over 30 is "obese", based on Institute of Medicine, Committee on Nutritional Status during Pregnancy and Lactation. Nutrition during pregnancy. Part I: Weight Gain. Washington, Dc: National Academy Press, 1990.

[2] Chattingius S, Bergstrom R, Lipworth L, Kramer MS. Prepregnancy weight and the risk of adverse pregnancy outcomes. N Engl J Med 1998;338:147-52.

[3] Pettit DJ, Knowler WC. Long-term effects of intrauterine environment,
birthweight, and breast-feeding in Pima Indians. Diabetes Care 1998; 21 (Supplement 2): B138-142.

[4] Moore LL, Singer MR, Bradlee ML, Rothman KJ, Milunsky A. A prospective study of the risk of congenital defects associated with maternal obesity and diabetes mellitus. Epidemiology 2000 Nov;11(6):689-94

[5] Gregory KD, Kjos SL, Peters RK. Cost of non-insulin-dependent diabetes in women with a history of gestational diabetes: implications for prevention. Obstet Gynecol 1993 May;81(5 (Pt 1)):782-6.

[6] American Academy of Pediatrics / American college of Obstetricians and Gynecologists. Guidelines for Perinatal Care, 4th ed. Elk Grove Village, IL: American Academy of Pediatrics or Washington, DC: American college of Obstetricians and Gynecologists, 1997.

Late Or No Prenatal Care[1]

PRAMS Asks,
"How many weeks or months pregnant were you when you had your first visit for prenatal care?"
"Did you get prenatal care as early in your pregnancy as you wanted?"

Disparities are notable: women with less education or income below the federal poverty level (FPL) were more likely to have late or no prenatal care than women with more socio-economic advantage.

Month of entry into prenatal care is taken from NM birth certificates but estimates for demographic groups differ from official Vital Records reports because NM PRAMS is a sample survey of NM residents with birth in this state.[2]

These mothers had no prenatal care or started after the 3rd month of pregnancy

- One third of all mothers in New Mexico
- Over half of young teens
- Over 40% of unmarried mothers
- Almost 40% of mothers with unintended pregnancy

PRAMS findings about mothers' satisfaction with time of starting prenatal care:

- About 3/4 mothers started prenatal care as early as they wanted.
- However, among mothers who had late or no prenatal care, many said they got prenatal care as early as they wanted.[3]
- The most common barriers to entering prenatal care as early as wanted were lack of timely appointments, mother's unawareness of pregnancy, and finances.

National scene

The Healthy People 2010 objective is for 90% of pregnant women to start prenatal care in the first three months of pregnancy. [4] Timely and adequate prenatal visits help providers to detect and care for medical problems such as high blood pressure and diabetes, and social problems including partner abuse. Early counseling about nutrition, smoking, and drinking can promote healthy outcomes. Inadequate use of prenatal care has been linked with increased risk for poor health of the infant, including low birth weight and prematurity, as well as maternal mortality. [5] Expansions in Medicaid can improve prenatal care utilization among women of low socioeconomic status.[6] For undocumented immigrants, every $1.00 cut from publicly-funded prenatal care is expected to increase costs of postnatal care by $3.33 and incremental long-term costs by $4.63.[7]

In other PRAMS states, the prevalence of late entry into prenatal care based on survey data ranged from 15.5% to 29.7% compared with 29.8% of New Mexican mothers in 1998. For 3 states, there was a significant increasing trend from 1993-1998 for not getting prenatal care as early as desired.[8]

What is being done in NM?

The finding that 60% of mothers with late or no prenatal care said they got care as early as

desired suggests that these mothers did not recognize the benefits of early prenatal care. In addition to increasing access, strategies must also increase utilization of available resources.

Based on all live births in this state (not just the PRAMS sample), the proportion of mothers starting prenatal care after the first three months increased from 33% in 1996 to 38% in 1999.[9] Several efforts are used to increase access to prenatal care. Medicaid covers care for women at or below 185% of the federal poverty level (FPL). Certified Nurse-Midwives (CNMs), many educated at the University of New Mexico, provide about 28% of prenatal care in New Mexico. These CNMs care for the underserved with cost-effective, independent services statewide. As a safety net, the NM Department of Health provides direct prenatal services to rural residents with no other source of care, funds care for medically indigent women with a high-risk pregnancy, and shares prenatal care costs for medically indigent women with a primary care provider.

Families FIRST and *promotora* programs provide case management linking pregnant mothers with services. Home visiting programs include case management as well as intensive support for mothers with special challenges. Maternal and Child Health Planning Councils in 27 counties assess local needs and apply for funds to extend services and build systems of care.

The Prenatal Care Utilization Task Force[10] has launched new strategies for increasing utilization of prenatal care: a media campaign, a clinician education campaign, and a policy group to study economic incentives and education curriculum policies.

PRAMS Voices,

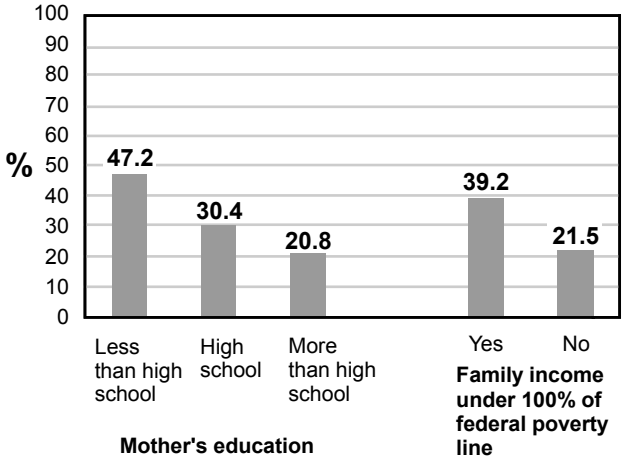
"I didn't want my parents to find out."

"I was scared to go."

"I was waiting for Medicaid."

"I didn't have time off from my job."

Percent of mothers with late/no prenatal care



Prenatal Counseling

PRAMS Asks,

"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?"
Responses include 13 topics.

Mothers were less likely to recall discussion of seat belt use, HIV testing, or partner abuse than other topics.

PRAMS found gaps among "at risk" mothers regarding discussion of important issues during prenatal care

- Among women who experienced physical abuse by their partner during the 12 months before pregnancy, about 60% did not remember prenatal counseling about this issue.
- Among women who smoked during the 3 months before pregnancy, 11% did not report talking about smoking.
- Of those who drank alcohol during the last 3 months of pregnancy, about 15% did not report discussion of how alcohol could affect the baby.

Most (at least 88%) mothers recalled discussion about safe medications, breastfeeding, baby's growth, and nutrition.

However, at least 11% of mothers did not recall counseling about each of the 9 other topics:

- Almost 1/4 of all mothers did not recall talking about getting an HIV test
- Over 15% of all mothers did not recall talking about how smoking or alcohol affects the baby.
- Almost 13% of all mothers did not remember discussing birth control methods to use after pregnancy.

National scene & background

National guidelines for perinatal care[11,12] include most of the topics above. Counseling about tobacco cessation, alcohol, and breast-feeding are associated with improved outcomes.[12] Prenatal HIV testing can reduce transmission of infection to infants by two-thirds[13] and has been recommended for all women.[14,15,16] Seat belt use could prevent motor vehicle deaths. Motor vehicle crashes were the #1 cause of maternal mortality in New Mexico from 1994-1998.[17].

In other PRAMS states, over 85% of women who have a high need for prenatal counseling about cigarette use, alcohol use, breastfeeding, or pre-term labor recalled prenatal discussion of the topic related to their need. However, only 35% of women disclosing partner abuse during pregnancy said their health care provider discussed partner abuse.[18]

What is being done in NM?

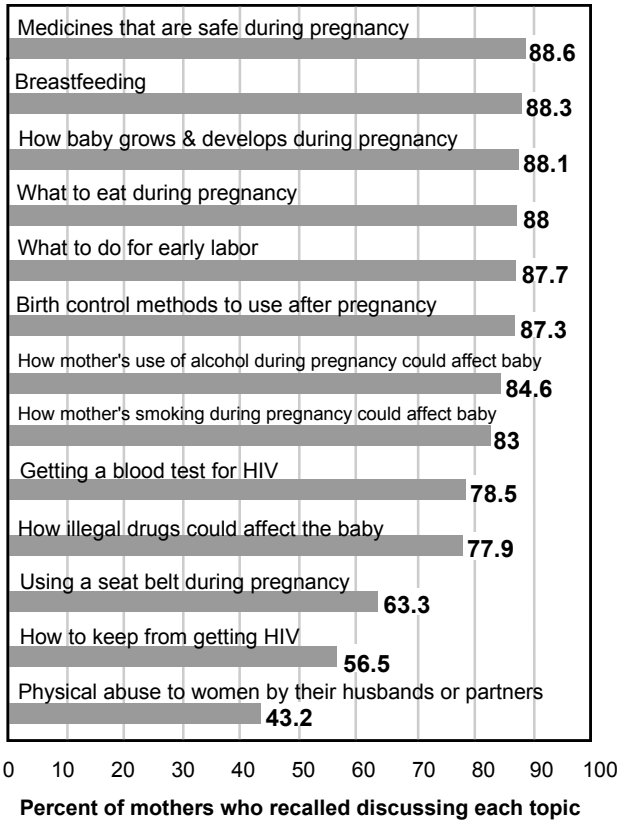
The state's three largest managed care organizations and some other provider of prenatal care are about to pilot "Centering Pregnancy". This is a new model that improves prenatal care through enhanced education, support, client satisfaction and attendance. Through pregnancy and the postpartum period, stable groups of clients with similar gestational age participate in facilitated

client discussions. This innovation complements traditional physical examinations.[19]

PRAMS Voices,

"I just wish my care provider had more time to explain things to their patients. [They are] always in a hurry."

Prenatal care discussion: percent of mothers who recalled discussing each topic



Prenatal counseling - Percentage of mothers who said a health care worker talked with them about these topics during prenatal care

	%	Error Margin* lower	Error Margin* upper
Medicines that are safe during pregnancy	**88.6**	*86.8*	*90.4*
Breastfeeding	**88.3**	*86.5*	*90.1*
How baby grows and develops during pregnancy	**88.1**	*86.2*	*89.9*
What to eat during pregnancy	**88.0**	*86.2*	*89.9*
What to do for early labor	**87.7**	*85.9*	*89.5*
Birth control methods to use after pregnancy	**87.3**	*85.5*	*89.2*
How mother's use of alcohol during pregnancy could affect the baby	**84.6**	*82.5*	*86.6*
How mother's smoking during pregnancy could affect the baby	**83.0**	*80.8*	*85.1*
Getting a blood test for HIV	**78.5**	*76.2*	*80.8*
How illegal drugs could affect the baby	**77.9**	*75.6*	*80.2*
Using a seat belt during pregnancy	**63.3**	*60.6*	*66.1*
How to keep from getting HIV	**56.5**	*53.8*	*59.3*
Physical abuse to women by their husbands or partners	**43.2**	*40.4*	*46.0*

Prenatal discussion about tobacco smoking

Among mothers who did and did not smoke during 3 months before pregnancy

	%	Error Margin* lower	Error Margin* upper
Smoking status during 3 months before pregnancy			
Did not smoke	**80.9**	*78.3*	*83.4*
Smoked	**88.6**	*84.9*	*92.2*
Smoking status during last 3 months of pregnancy			
Did not smoke	**81.8**	*79.5*	*84.1*
Smoked	**92.6**	*88.2*	*96.9*

Prenatal discussion about partner abuse

Among mothers who were and were not abused

	%	Error Margin* lower	Error Margin* upper
Abused by partner during 12 months before pregnancy			
Not abused	**43.4**	*40.5*	*46.3*
Abused	**41.0**	*31.1*	*50.9*
Abused by partner during pregnancy			
Not abused	**42.9**	*40.0*	*45.8*
Abused	**48.1**	*36.6*	*59.5*

Prenatal discussion about drinking alcohol during pregnancy

Among mothers who did and did not drink

	%	Error Margin* lower	Error Margin* upper
Drank alcohol during 3 months before pregnancy			
Did not drink	**83.4**	*80.6*	*86.3*
Drank	**86.0**	*83.1*	*89*
Drank alcohol during last 3 months of pregnancy			
Did not drink	**84.6**	*82.5*	*86.6*
Drank	**85.5**	*75.8*	*95.2*

Home Visiting Services

PRAMS Asks,
"During your pregnancy or since your delivery, did you participate in any of these services?"
"Home visiting services" is one response option.

With large gaps in resources, few mothers can participate in these services. During pregnancy, about 11% of all mothers had home visiting services, and after delivery, about 18% had these services.

PRAMS found that

- Younger mothers, especially teen mothers may have been more likely to receive home visiting services during pregnancy and after delivery.*
- Others who were more likely to receive home visiting services during pregnancy included Native American mothers, unmarried women, Medicaid recipients, or women living in poverty. Similar associations were found for visits after delivery, although more data are needed to confirm the last three.

National scene

Home visiting services provide important support to families, especially in the face of increasingly early hospital discharges. Home visit follow-up after 24-hour discharge can save about $500 in *net* costs per infant.[20] More intensive home visiting programs can help families access services, gain parenting skills, defer subsequent pregnancies, and move into the workforce; home visitation can also prevent child abuse.[21] Home-based peer counseling can increase "breastfeeding only" practices.[22]

Although newborn home visitation is universal in Europe, in the U.S., these services and their evaluation have focused on families with socioeconomic disadvantages. Prenatal and infancy nurse home visitation can improve a wide range of maternal and child health outcomes. Benefits to mothers included a reduced risk of pregnancy-induced hypertension, and to the child, decreased injuries or poison ingestions. Moreover, mothers with home visits were less likely to have a repeat pregnancy within 2 years of delivery.[23] Comprehensive home visiting programs can also increase spacing between pregnancies, and decrease the duration of welfare use.[24] For low-income families, the cost of home visiting was recovered by less overall government spending of $180 per family.[25]

What is being done in NM?

Early hospital discharge after birth is common in this state. In 1999, 41 % of New Mexican mothers reported that the infant spent fewer than 2 nights in hospital.[26]

Models for home visiting vary greatly in their goals, outcomes, training and supervision of staff, ages of children served, intensity of intervention, and frequency of home visits.

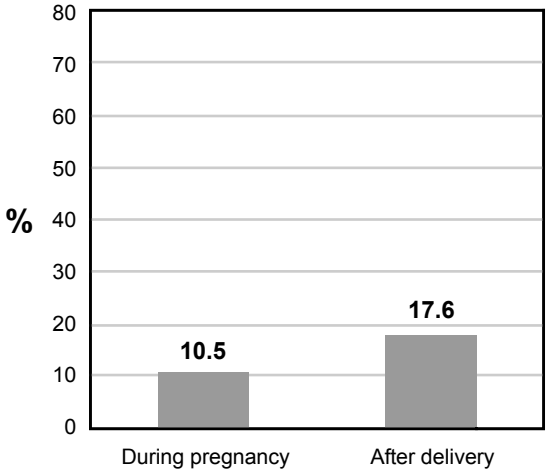
- Families FIRST provides a systematic, universal approach to voluntary support for families from the prenatal period until the child is 3 years old. This program works with Managed

Care Organizations in a case management approach and offers one home visit and four additional contacts per client. Families FIRST links Medicaid-eligible mothers and children with needed health, social, and educational services. In 2001, Families FIRST served 6,800 clients statewide. Every dollar spent on these services can save $3.55.

- Other programs may target different clients or periods of maternal-child care. Over 150 community organizations provide home visiting services to pregnant women and/or infants and young children. In the southern part of New Mexico, *promotoras* are trained lay workers who provide case management and support to women during the perinatal period.

There is still a large unmet need for home visiting to build family strengths and infant well-being.

Mothers who received home visiting services during pregnancy & after delivery



PRAMS Voices,

"My baby was taken from the hospital because I was using drugs. I am pregnant again but I am straight and need help."

WIC Participation During Pregnancy

(Special Supplemental Nutrition Program for Women, Infant, and Children)

PRAMS Asks,
"During your pregnancy, were you on WIC?" (Question 17)

Statewide, over 50% of mothers had WIC services. About 77% of new mothers with low incomes and 80% of mothers with Medicaid as a payor of prenatal care and/or delivery participated.

PRAMS found that

- Slightly over half of all mothers in New Mexico participated in the WIC Program during pregnancy.
- Those women who did not finish high school were more than twice as likely to receive WIC services as women who had more than a high school education.
- Mothers of minority groups were more likely to receive WIC services.

Background

WIC provides healthy foods, nutrition counseling and education, and referrals to needed services. Clients are nutritionally at-risk infants and children, and women during the perinatal period whose income is 185% of poverty or less. States run this program primarily with federal funds.

Studies show that WIC services can reduce fetal deaths, infant mortality, prematurity, and low birth weight rates.[27,28] WIC improves nutrition, growth, and cognitive development of at-risk infants and children. Pregnant women using WIC benefit from improved weight gain and earlier prenatal care. WIC is a hub of referrals for immunizations, well child care, family planning, car seats, smoking cessation, violence and substance abuse services, and case management. Outcomes in more than 70 studies have shown that WIC is an effective nutrition program. It has been calculated that for every $1.00 spent on WIC benefits $3.00 to $4.00 are saved in postnatal medical costs.

What is being done in NM?

Since 1974, the New Mexico WIC Program has expanded from 2144 to 56,000 clients/month. Services are provided at 110 sites and 5 mobile units. Over 50% of its clinics are in satellite sites.

The NM WIC Program is the backbone of the statewide Breastfeeding Task Force. In 1991, WIC initiated a social marketing project to increase breastfeeding through community task forces, education of medical and WIC staff and participants, and training and use of peer counselors. Focus group research produced recommendations for breastfeeding support in hospital, childcare, and worksite settings.[29]

The NM WIC Program works with other programs in the State in 38 unincorporated "colonias". It developed an educational approach where facilitated discussions replace lectures. NM WIC is doing research on teaching feeding practices to parents. This may help prevent eating disorders and obesity. The Farmers' Market Nutrition

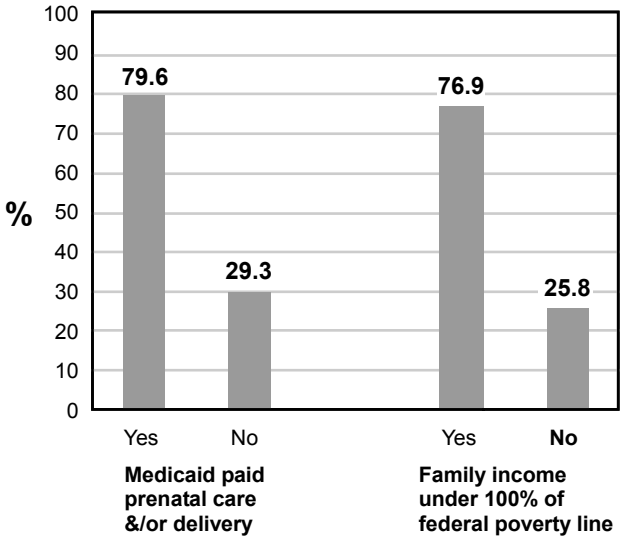
Program allows WIC clients to purchase fresh fruits and vegetables directly from local NM farmers.

Recently a study showed that anemia among children on the NM WIC Program has decreased by 20% over the last 10 years. During the last 10 years, breastfeeding initiation among WIC clients has increased from 43% to 63%.

PRAMS Voices,

"With WIC they help us feed our babies and they teach us what we should eat so that the baby is well nourished. I thank them for all the help they provide Latina mothers. Thank You!"

Mothers participating in WIC during pregnancy



Services For Pregnant & Parenting Teens

PRAMS Asks,
"During your pregnancy or since your delivery, did you participate in any of these services?"
One response option is "program for pregnant or parenting teenagers".

Unless otherwise noted, "teens" refers to 15-19-year-olds.

Most teen mothers did not report participating in services targeting teens: 22% had prenatal services and 11% had postpartum services.

PRAMS found that among pregnant or parenting teenagers

- Younger teens (ages 15-17) were much more likely to access services than older teens
- Native American and Hispanic teens may have been more likely to receive services*
- Teen mothers living in Public Health Division District 3 (southwest NM) may have been more likely to receive these services*
- Older (18-19-year old) teen mothers were more likely than younger teens (15-17 years old) to exhibit some risk factors, yet received fewer services overall than younger teen mothers. These risks included infant's exposure to tobacco smoke and higher rates of gestational diabetes (see separate sections of this report).

National scene

In the United States, New Mexico ranks fifth highest in teen *pregnancy* rates and *birth* rates.[30] Teens need extra support in life skills, parenting, child care, finishing school, and earning a living. Disadvantage often underlies teen pregnancy and continues into the next generation. Emotional deprivation at an early age may predispose youth to teen parenthood, [31,32] and youth from poorer families are more likely to start sexual activity early and not to use contraception.[33] Having a child before age 20 reduces schooling by almost 3 years.[34] Children of adolescent mothers suffer high rates of school failure and behavioral problems[35] and are at risk of developmental and other health problems. They are 50% more likely to repeat a grade than children of older mothers.[36] Abundant evidence shows immediate and long-term benefits of programs for teen pregnancy prevention, and services for pregnant and parenting teens, including comprehensive home visitation.[37]

What is being done in NM?

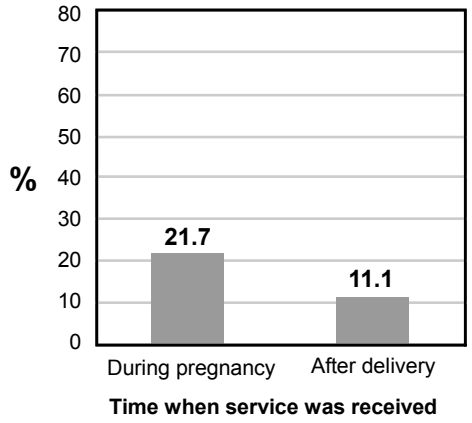
There are over 40 programs around New Mexico serving pregnant and parenting teens. Yet resources are not adequate for all who could benefit. Efforts include Families FIRST case management, GRADS programs,[38] Teen Parent Residences, and school based health centers.[39] Key players in these efforts include the NM Children Youth & Families Department, Department of Education, Department of Health, and University of New Mexico. The statewide New Mexico Teen Pregnancy Coalition[40] works with providers through education, training, and networking; offers scholarships to teens after high school; promotes policy changes through grassroots advocacy; and evaluates programs. The Young Fathers Project works to improve parenting skills, educational

levels, employment, social stability, and to reduce repeated pregnancies. When funded, the State Children's Health Insurance program will target teen mothers and infants for comprehensive home visiting services during a pregnancy and for 3 years after delivery.

PRAMS Voices,

"As a teen mother we need more helpful information because a teen mother isn't exactly a 'teen' anymore. Life, responsibility and the future is different. As I've seen it this reality is hard for some teen mothers to accept."

Teen mothers who received services for teens



Footnotes

Prenatal Care

[1] Future PRAMS reports will report the Adequacy of Prenatal Care Index, which is based on the number of visits and time of entry and described in Kotelchuck M. An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed Adequacy of Prenatal Care Utilization Index. Am J Public Health 1994;84:1313-20.

[2] The official NM Vital Records reports include all NM resident births. The NM PRAMS sample excludes out-of-state births to NM residents, multiple births of more than triplet, mothers who cannot read or speak English or Spanish, and mothers of infants adopted at birth. The PRAMS study population is eligible NM mothers, not live births; each mother is included only once (the mother of twins or triplets is only eligible to be sampled once). The NM PRAMS sample provides smaller estimates of the population than the NM Vital Records and Health Statistics denominators.

3 Estimate for mothers who had late or no prenatal care & said they started as early as they wanted was 58.6% (95% CI 53.3%, 63.9%) using birth certificates (hospital reports) and 31.7% (95% CI 25.0% to 38.5%) using PRAMS mothers' reports.

[4] .U. S. Department of Health and Human Services. Healthy People 2010 Conference Edition. Washington DC: January 2000. <http://www.health.gov/healthypeople/Document/default.htm>

[5] Wilcox LS, Marks JS, editors. From data to action: CDC's public health surveillance for women, infants, and children. CDC maternal and child health monograph. Atlanta: Centers for Diseases Control and Prevention, 1994.

[6] Dubay L, Joyce T, Kaestner R, Kenney GM. Changes in prenatal care timing and low birth weight by race and socioeconomic status: implications for the Medicaid expansions for pregnant women. Health Serv Res 2001 Jun;36(2):373-398. Comment in: Health Serv Res. 2001 Jun;36(2):399-403. Authors are affiliated with Th Urban Institute, Washington, DC 20037, USA.

[7] Lu MC, Lin YG, Prietto NM, Garite TJ. Elimination of public funding of prenatal care for undocumented immigrants in California: a cost/benefit analysis. Am J Obstet Gynecol 2000 Jan;182(1 Pt 1):233-239.

[8] Lipscomb LE, Johnson CH, Morrow B, Colley Gilbert B, Ahluwalia IB, Beck LF, Gaffield ME, Rogers M, Whitehead N. PRAMS 1998 Surveillance Report. Atlanta: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000. For late prenatal care among 1998 births, estimates (and 95% confidence intervals) were 15.5% (12.6%-18.5%) in New York, 29.7% (26.8%-32.6%) in Arkansas, and 29.8% (26.9%-32.7%) in New Mexico.

[9] Personal communication, Vicky Howell. NM Vital Records and Health Statistics, Office of Information Management, NM Department of Health, Santa Fe, NM, Sept. 2001.

[10] The Prenatal Care Utilization Task Force includes representatives from the Department of Health, the New Mexico Prenatal Care Network, the New Mexico Hospital and Health Systems Association, the March of Dimes, and Lovelace, Cimarron and Presbyterian Health Plans.

Prenatal Counseling

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[39] These are operated and funded through efforts of local schools, the University of New Mexico, and the NM Department of Health.

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Breastfeeding

PRAMS Asks,
"For how many weeks did you breast-feed your new baby?"

Almost 80% of mothers start breastfeeding, but among those who start, only 60% continue for at least 9 weeks. This translates into 13,000 infants who never breastfed or breastfed fewer than 9 weeks.

PRAMS found that

- Economic advantage appears to promote breastfeeding, as women with more education and income above poverty were more likely to initiate and continue breastfeeding their infants at least 9 weeks.
- While younger teens (15-17 years old) seemed more likely to initiate breastfeeding than older teen mothers (18-19 years old),* less than half of either group continued breastfeeding past 9 weeks.
- Other characteristics of mothers who were more apt to initiate or continue breastfeeding included being married and intending the pregnancy.

National scene

Health benefits provide the basis for the American Academy of Pediatrics' recommendation for exclusive breastfeeding during the first six months of life, followed by breastfeeding plus supplemental foods until at least one year.[1] Breastfeeding protects infants against respiratory and gastrointestinal infections and may help their cognitive development.[2] Breastfeeding also benefits mothers by reducing the risk of postpartum blood loss, pre-menopausal breast cancer and ovarian cancer.[3]

When women start to breastfeed, they need support from family and friends, community norms, and workplace policies. Home-based peer counseling can increase "breastfeeding-only" practices.[4] After the infant is older, women who return to work may continue breastfeeding if given places to pump and refrigerate breast milk. Recently, U.S. Congress passed the act giving mothers the right to breastfeed on any federal property.[5]

Health care costs during the first year of life were estimated to be $331-$475 higher for infants who were never breastfed.[6] In non-breastfed infants, national health care costs of treating diarrhea, respiratory syncytial virus, and otitis media were estimated at over $1 billion each year. Moreover, formula costs twice as much on the average as supplemental food for the breastfeeding mother. Thus, an additional $2,665,715 in federal funds is needed yearly in order for WIC to provide infant formula to non-breastfeeding mothers.[7] Breastfeeding can reduce public spending: breastfed infants enrolled in WIC saved $478 monthly in WIC and Medicaid expenditures during the first 6 months of life.[8] In addition, employers in the private sector stand to benefit. One company reported a return of almost 3 to 1 on its investment in prenatal classes, access to pumping rooms, and conferences with lactation consultants.[9]

In other PRAMS states, 47.0% to 87.8% of mothers initiated breastfeeding.[10]

What is being done in NM?

In 1991, WIC initiated a project to increase breastfeeding through community task forces, education of WIC staff and participants, and training and use of peer counselors.

The NM WIC Program

- Provides all pregnant and breastfeeding women with individual counseling and group facilitated education
- Offers breast pumps and other supplies to breastfeeding women
- Provides electric pumps and other specialized equipment to mothers who need them.
- Trains health care professionals and lay counselors in free "Breastfeeding Basics" workshops
- Runs a Peer Counselor Project, where an experienced WIC breastfeeding mother helps and supports a new breast-feeding WIC client

The NM Breastfeeding Task Force, a committee of the NM Pediatric Society, sponsors these activities:[11]

- Legislation and policies to support breastfeeding in the worksite. In 2000, the NM legislature passed a law making it legal for mothers to breastfeed in public places.[12] The Task Force has developed guidelines and technical assistance for businesses and employers to implement this law.
- The "Just Say No" campaign, which encourages hospitals and clinics to not distribute formula companies' gift packs for new parents
- Focus group research in 1993 – 1994, which produced practical recommendations for breastfeeding support in hospital, childcare, and worksite settings
- Technical assistance to providers and employers to enable breastfeeding practices

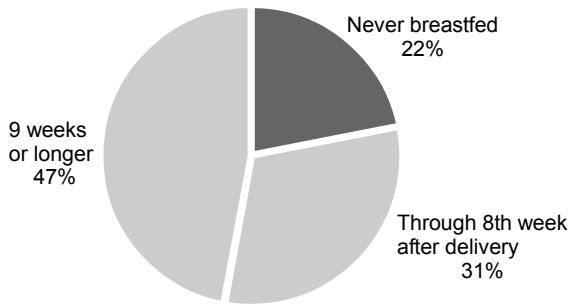
The NM WIC Program and the NM Breastfeeding Task Force celebrate World Breastfeeding Week each year with events to promote the benefits of breastfeeding among the WIC clients and the public.

PRAMS Voices,

"[I have] been asked to leave restaurants because I was breastfeeding. We need more public encouragement for women to breastfeed."

"Breastfeeding is the most important thing a mother can do for her baby. Even if it is only for the first month of the baby's life."

How long did the infant breastfeed?



Infant's Sleep Position

PRAMS Asks,
"How do you put your new baby down to sleep most of the time?" The three responses are on his or her side, back, or stomach.

Disparities persist: the challenge is to assure that every mother knows how to protect her baby against the tragedy of Sudden Infant Death Syndrome (SIDS). Women with lower educational levels or living below the poverty level were less likely to place their infant to sleep on the back, the safest position.

PRAMS findings

- About 1/2 of mothers are placing their infant to sleep on the back. This translates into 10,700 to 12,100 infants born in a given year who are ***not*** sleeping on their back.
- Only 39% of young teen mothers (15-17 years old) used the back sleep position
- Women who had had a previous child were less likely to put their infants to sleep on their back**
- Native American mothers were most likely to use the back sleep position, followed by Non-Hispanic White mothers and finally Hispanic mothers.
- Infants with exposure to tobacco smoke or very low birth weight, which are risks for SIDS, may have been less to be put to sleep on their back (more data are needed to confirm this).

National scene

Sleep position is an important factor in preventing sudden infant death syndrome (SIDS). Infants who sleep prone (on the stomach) are 3.5 to 9.3 times more likely to have SIDS than infants who sleep on their back,[13] and the side position is also riskier than the back.[14] Prenatal maternal smoking, which leads to a 4-fold odds of SIDS,[15] postnatal exposure to cigarette smoke, and prenatal maternal anemia combined with smoking[16] are also implicated.[15] Other factors include respiratory infections (which are more likely with passive smoke exposure and less likely with breastfeeding),[17] high altitude of residence in combination with the prone sleeping position,[18] soft bedding[19], and thermal stress.[20] Bed-sharing increases the risk of SIDS only if the mother is a smoker.[21]

Since the back position was recommended in 1992,[22] prone (on the stomach) sleeping among US infants has decreased from 70% to about 25% in 1996, and the rate of SIDS in the US declined by approximately 30%.[23] However, a recent study revealed that nearly 1/2 of child care centers surveyed in a large city were still using the prone sleeping position for infants < 6 months of age.[24] Among other PRAMS states, about 33% to 63% of mothers use the back sleep position for their infant.[25]

What is being done in NM?

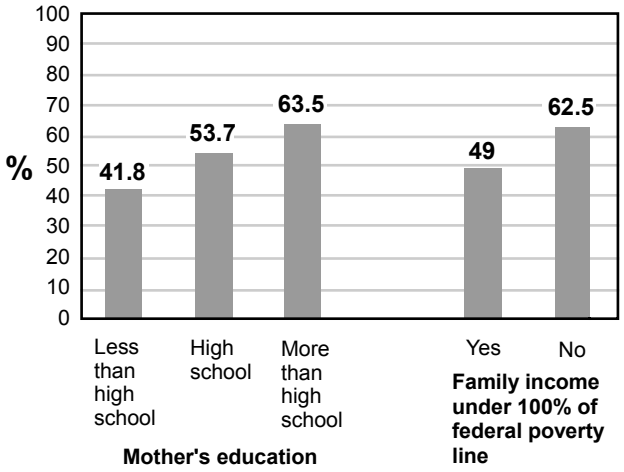
Since the "Back to Sleep" campaign, there was a 53% decline in the five-year averages for the rate of SIDS deaths (1.55 per 1,000 live births during the period 1990-1994 to under 0.75 during the period 1995-2000).[26]

After the national "Back to Sleep" campaign started in 1994[27], brochures were distributed to health care providers.

Known risk factors for SIDS can be reduced further in New Mexico by:

- Incorporating the "back to sleep" message into hospital discharge information for parents of newborns
- Educating all caregivers of infants, including relatives, sitters, and day-care providers
- Requiring that day care centers place infants on their back for sleep
- Protecting the fetus from prenatal smoke exposure, and the infant from passive smoke.

Percent of infants placed to sleep on back



Well Child Visits Among Infants 2 Months of Age or Less

PRAMS Asks,
"How many times has your baby been to a doctor or nurse for routine well baby care? Don't count the times you took your baby for care when he or she was sick."

Only 62% of New Mexican newborns have an adequate number of well-child care visits. Higher maternal education appears to confer only a slight advantage, and income does not make a significant difference.

The definition of an adequate number of well-baby visits for infants ages 2 to 9 months was adapted from the American Academy of Pediatrics guidelines.[28]

Infants with these characteristics were more likely to have the recommended visits

- First birth
- Low birth weight

Mothers who were more likely to take their infants for the recommended visits

- Residence other than northwest New Mexico
- Education beyond high school
- Non-Hispanic or Hispanic white ethnicity/race

National scene

In addition to providing time for immunizations, well child visits let parents discuss child development, parenting, and family issues; professionals can identify medical problems and counsel about safety.[29] The benefits of well-child care have been documented among underprivileged families. Medicaid-covered children are less likely to have a usual source of care, and are more likely to use emergency services and be hospitalized than more affluent children. A recent study showed that a series of well-child visits maintained during the first 2 years of life decreases rates of avoidable hospitalizations among poor and near-poor children, regardless of race, level of poverty, or health status.[30]

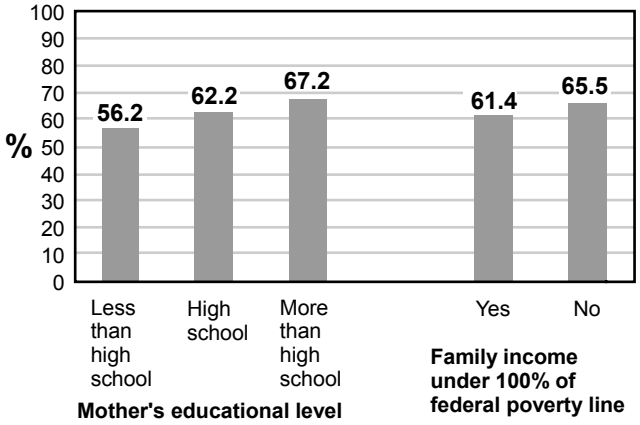
What is being done in NM?

Following federal legislation in 1997, New Mexico passed the Child Health Act authorizing its own SCHIP (State Children's Health Insurance Plan) program in 1998 to provide Medicaid covered services to those children whose family income falls in the range of 186 to 235% of the federal poverty level. Of 27,294 live births in 1998, nearly three quarters could potentially benefit from either Medicaid or SCHIP coverage. Both Medicaid and SCHIP cover well-child care services and screenings. Our best estimates tell us that in federal fiscal year 1999, about 95% of those infants enrolled in Medicaid used their card for services, and close to 86% received a screening.[31] Seventy-eight percent of infants enrolled in SCHIP received services, less than one half received a screening.

Staff at the Women Infant and Children (WIC) Program, which serves more than one half of new

mothers, routinely check whether infants' immunization and well child care are current. Staff monitor ongoing well child care and offer referrals to needed services, improving mothers' and infants' access to care.

Mothers whose infant had appropriate number of well child visits



PRAMS Voices,

"Now there is no excuse for a parent not to take care of their child's health."

- PRAMS Mom

Immunizations

PRAMS Asks,
"Has your new baby gone to a clinic for his or her first baby shots (immunizations)?"

PRAMS estimates that most New Mexican babies who are less than 3 months old (92%) started their immunizations on time.

PRAMS findings

- Poverty and education did not appear to correlate with receipt of first immunizations.
- The small sample number for infants under 12 weeks of age precludes other single-year comparisons

National scene[32]

Childhood vaccines prevent ten infectious diseases. Although at least 95% of U.S. children are adequately vaccinated by kindergarten, about one million pre-school children are not adequately protected against potentially fatal illnesses.

Failure to immunize can lead to new outbreaks of disease. In 1989-91, a measles epidemic resulted in more than 11,000 hospitalizations and more than 120 deaths. Vaccines are cost-effective. More than $13 are saved for every $1 spent on measles/ mumps/ rubella vaccine; more than $29 are saved for every $1 spent on diphtheria/tetanus/pertussis vaccine.

The federal Childhood Immunization Initiative works with public and private sectors, health care professionals and volunteer organizations. The initiative will reduce vaccine costs for parents through the Vaccines for Children (VFC) program and will improve vaccination services**,** parental awareness about immunizations, monitoring of diseases and vaccinations, quality of vaccines and ease of vaccine use (number of shots and vaccine schedule). State WIC programs are providing on-site immunization services, checking immunization records, and adding immunization information to WIC food packages.

What is being done in NM?

The NM Immunization Program and PRAMS data suggest that collaboration between Medicaid, the NM Department of Health, and private providers help achieve high initial immunization rates among groups with socioeconomic disadvantage.

However, New Mexico ranked last or next to last among states in immunization coverage of its two-year olds.[33] There appears to be a serious statewide decline in coverage rates since 1996 when these rates were 80%, among the highest in the nation. With a coverage rate of 64.5% for vaccines recommended by 2 years of age, New Mexico's children are vulnerable to the spread of vaccine preventable disease. A child who receives first vaccinations on or after 12 weeks of age is a late starter.[34] Late starters are twice as likely to be inadequately vaccinated at 2 years old then those who start earlier.[35]

Tracking includes a reminder to every child born in NM sent by NM Office of Vital Records and Health Statistics. A survey of VFC providers last year showed that 75% have some kind of tracking and reminder system. NMSIIS (New Mexico Statewide Immunization Information System), a Web-based system will use the new Medicaid Management Information System for tracking and reminders.

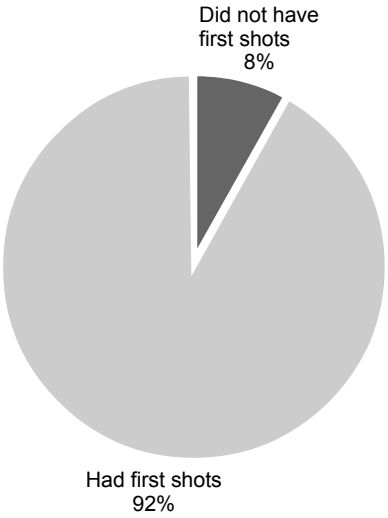
Providers are required to educate parents with a Vaccine Information Statement before every dose of vaccine as part of informed consent. The Immunization Program has conducted sessions statewide to ask parents about their concerns and learn how to address these issues.

Three major managed care organizations (Presbyterian, Lovelace and Cimmaron) require all SALUD! providers to be members of Vaccines for Children. In NM, vaccinations are free to all children through 19 years of age. Since access to providers is assured, low immunization rates are attributed to missed opportunities. Barriers include these practices in both private and public clinical settings: not vaccinating during minor illnesses or visits other than well-child checkups, limiting the number of injections per visit, sliding fees and co-pays. In public health sites, clinic hours and program segregation create obstacles.

Among infants under 12 weeks of age, 92.1% (86.9% to 97.2%) **had received their first immunization.**

Late starters are defined by the NM Immunization Program as having their first immunization at 12 weeks of age or later. For infants who were 12 weeks or older, PRAMS does not ask the age when the first immunization was given; these infants may be early or late starters. PRAMS results may be biased, as mothers who respond during the first 11 weeks after delivery may be more likely to start immunizations on time than mothers who respond later.

Receipt of the first set of immunizations among infants under 12 weeks of age



Footnotes

Breastfeeding

* These comparisons were not statistically significant.

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Infant Sleep Position

** These comparisons were not statistically significant when using year 1999 births only; but were significant for July 1997 through December 1999 births combined.

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Oyen N, Markestad t, Skaerven R, et al. Combined effects of sleeping position and prenatal risk factors in sudden infant death syndrome: the Nordic Epidemiological SIDS study. Pediatrics. 1997;100:613-21.

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Well Child Care

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Immunizations

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[35] Infants who start DTP vaccine series before 3 months of age are twice as likely to be up-to-date at 24 months than those who start after 3 months. Ongoing surveillance from William Atkinson, MD, MPH, Centers for Disease Control and Prevention (CDC) National Immunization Program.

Appendix 1

Data Tables

Appendix 1

Data Tables

Maternal residence

County of residence and zip codes recoded to *District One, urban*=Bernalillo, Torrance, Valencia, and zip codes for Bernalillo city and Rio Rancho; *District 2* = Colfax, Harding, Los Alamos, Mora, Rio Arriba, San Miguel, Santa Fe, Taos, Union ; *District 3* = Catron, Dona Ana, Grant, Hidalgo, Luna, Otero, Sierra, Socorro; *District 4* = Chaves, Curry, De Baca, Eddy, Guadalupe, Lea, Lincoln, Quay, Roosevelt ; *District One, rural* = McKinley, Sandoval (excluding zip codes for Bernalillo city and Rio Rancho), San Juan, Cibola.

Awareness that folic acid can prevent birth defects

	%	Error Margin	
		lower	*upper*
All mothers	**68.9**	*66.4*	*71.5*
Age (years)			
15-17	**44.9**	*32.8*	*57.1*
18-19	**53.7**	*45.3*	*62.1*
20-24	**67.3**	*62.5*	*72.1*
25-34	**75.9**	*72.2*	*79.6*
35 +	**76.6**	*69.6*	*83.6*
Ethnicity / race			
Non-Hispanic White	**81.2**	*77.4*	*85.1*
Native American	**56.3**	*50.1*	*62.4*
Hispanic White	**63.8**	*59.8*	*67.7*
African American †			
Other †			
Education			
Less than high school	**56.0**	*50.3*	*61.7*
High school	**63.0**	*58.5*	*67.6*
More than high school	**85.0**	*81.8*	*88.2*
Marital status			
Married	**78.2**	*75.1*	*81.3*
Not married	**58.4**	*54.3*	*62.4*
Any previous live birth			
No	**66.6**	*62.4*	*70.8*
Yes	**70.5**	*67.2*	*73.8*
Residence (region of NM)			
Central (District 1 urban)	**76.8**	*72.9*	*80.8*
Northeast (District 2)	**72.4**	*65.5*	*79.3*
Southwest (District 3)	**60.5**	*53.7*	*67.3*
Southeast (District 4)	**68.1**	*61.3*	*74.8*
Northwest (District 1 rural)	**56.9**	*50.5*	*63.2*
Income < 100% poverty			
No	**81.5**	*77.9*	*85.0*
Yes	**61.5**	*57.8*	*65.2*
Medicaid paid prenatal care &/or delivery			
No	**78.1**	*74.8*	*81.4*
Yes	**61.0**	*57.2*	*64.7*
Pregnancy unintended			
Wanted earlier or then	**75.1**	*71.7*	*78.5*
Wanted later or never	**62.5**	*58.3*	*66.8*

Intended Pregnancy

	%	Error Margin	
		lower	upper
All mothers	**56.4**	*53.5*	*59.3*
Maternal characteristic			
Age (years)			
15-17	**22.4**	*10.7*	*34.1*
18-19	**39.4**	*30.8*	*48.0*
20-24	**52.6**	*47.4*	*57.9*
25-34	**66.1**	*62.0*	*70.2*
35 +	**64.3**	*55.7*	*73.0*
Ethnicity / race			
Non-Hispanic White	**62.0**	*57.1*	*66.8*
Native American	**46.9**	*40.3*	*53.4*
Hispanic White	**55.8**	*51.6*	*60.0*
African American †			
Other †			
Education			
Less than high school	**52.0**	*46.0*	*58.0*
High school	**53.7**	*48.8*	*58.6*
More than high school	**64.2**	*59.8*	*68.6*
Marital status			
Married	**68.4**	*64.8*	*72.0*
Not married	**41.7**	*37.4*	*46.0*
Any previous live birth			
No	**53.1**	*48.5*	*57.7*
Yes	**58.7**	*55.0*	*62.3*
Residence (region of NM)			
Central (District 1 urban)	**59.7**	*55.1*	*64.3*
Northeast (District 2)	**60.9**	*53.1*	*68.8*
Southwest (District 3)	**55.7**	*48.6*	*62.7*
Southeast (District 4)	**50.8**	*43.5*	*58.1*
Northwest (District 1 rural)	**51.3**	*44.5*	*58.0*
Under 100% poverty			
No	**68.5**	*64.1*	*72.8*
Yes	**48.1**	*44.2*	*52.1*
Health insurance before pregnancy			
No	**49.0**	*45.0*	*52.9*
Yes	**64.8**	*60.8*	*68.8*
Medicaid paid prenatal care &/or delivery			
No	**64.5**	*60.6*	*68.5*
Yes	**49.0**	*45.0*	*53.1*

Unintended Pregnancy

	%	Error Margin	
		lower	upper
All mothers with unintended pregnancy	**43.6**	*40.7*	*46.5*
Maternal characteristic			
Age (years)			
15-17	**77.6**	*65.9*	*89.3*
18-19	**60.6**	*52.0*	*69.2*
20-24	**47.4**	*42.1*	*52.6*
25-34	**33.9**	*29.8*	*38.0*
35 +	**35.7**	*27.0*	*44.4*
Ethnicity / race			
Non-Hispanic White	**38.1**	*33.2*	*42.9*
Native American	**53.1**	*46.6*	*59.7*
Hispanic White	**44.2**	*40.0*	*48.4*
African American †			
Other †			
Education			
Less than high school	**48.0**	*42.0*	*54.0*
High school	**46.3**	*41.4*	*51.2*
More than high school	**35.8**	*31.4*	*40.2*
Marital status			
Married	**31.6**	*28.0*	*35.2*
Not married	**58.3**	*54.0*	*62.6*
Any previous live birth			
Any previous live birth			
No	**46.9**	*42.3*	*51.5*
Yes	**41.3**	*37.7*	*45.0*
Residence (region of NM)			
Central (District 1 urban)	**40.3**	*35.7*	*44.9*
Northeast (District 2)	**39.1**	*31.2*	*46.9*
Southwest (District 3)	**44.3**	*37.3*	*51.4*
Southeast (District 4)	**49.2**	*41.9*	*56.6*
Northwest (District 1 rural)	**48.7**	*42.0*	*55.5*
Under 100% poverty			
No	**31.6**	*27.2*	*35.9*
Yes	**51.9**	*47.9*	*55.8*
Health insurance before pregnancy			
No	**51.1**	*47.1*	*55.1*
Yes	**35.2**	*31.2*	*39.2*
Medicaid paid PNC &/or delivery			
No	**35.5**	*31.5*	*39.4*
Yes	**51.0**	*46.9*	*55.0*

Mothers with unintended pregnancy who used contraception at conception

	%	Error Margin	
		lower	Upper
Percent of all mothers with unintended pregnancy who used contraception at conception	**44.5**	*40.2*	*48.9*
Maternal characteristic			
Age (years)			
15-17	**43.4**	*28.5*	*58.2*
18-19	**39.4**	*28.3*	*50.4*
20-24	**41.2**	*33.8*	*48.7*
25-34	**50.0**	*42.5*	*57.5*
35 +	**50.6**	*35.2*	*66.0*
Ethnicity / race			
Non-Hispanic White	**46.5**	*38.4*	*54.6*
Native American	**32.2**	*23.9*	*40.5*
Hispanic White	**47.5**	*41.1*	*53.8*
African American †			
Other †			
Education			
Less than high school	**42.1**	*33.5*	*50.6*
High school	**43.1**	*35.9*	*50.2*
More than high school	**50.9**	*43.2*	*58.6*
Marital status			
Married	**48.8**	*41.8*	*55.7*
Not married	**41.7**	*36.1*	*47.3*
Any previous live birth			
No	**36.1**	*29.6*	*42.6*
Yes	**50.5**	*44.7*	*56.3*
Residence (region of NM)			
Central (District 1 urban)	**46.5**	*39.1*	*53.8*
Northeast (District 2)	**49.2**	*36.1*	*62.2*
Southwest (District 3)	**43.4**	*32.7*	*54.0*
Southeast (District 4)	**41.7**	*31.3*	*52.1*
Northwest (District 1 rural)	**41.5**	*31.8*	*51.1*
Under 100% poverty			
No	**44.0**	*35.7*	*52.3*
Yes	**45.3**	*39.8*	*50.8*
Health insurance before pregnancy			
No	**41.2**	*35.7*	*46.7*
Yes	**50.1**	*42.9*	*57.2*
Medicaid paid prenatal care &/or delivery			
No	**46.5**	*39.5*	*53.4*
Yes	**43.3**	*37.7*	*48.9*

Mothers with unintended pregnancy who *did not* use contraception at conception

	%	*Error Margin*	
		lower	*upper*
Percent of mothers with unintended pregnancy who were *not* using contraception at conception	**55.5**	*51.1*	*59.9*
Maternal characteristic			
Age (years)			
15-17	**56.7**	*41.8*	*71.5*
18-19	**60.6**	*49.6*	*71.7*
20-24	**58.8**	*51.4*	*66.2*
25-34	**50.0**	*42.5*	*57.5*
35 +	**49.4**	*34.0*	*64.8*
Ethnicity / race			
Non-Hispanic White	**53.5**	*45.4*	*61.6*
Native American	**67.8**	*59.5*	*76.1*
Hispanic White	**52.5**	*46.2*	*58.9*
African American †			
Other †			
Education			
Less than high school	**58.0**	*49.4*	*66.5*
High school	**57.0**	*49.8*	*64.1*
More than high school	**49.1**	*41.4*	*56.8*
Marital status			
Married	**51.2**	*44.3*	*58.2*
Not married	**58.3**	*52.7*	*63.9*
Any previous live birth			
No	**63.9**	*57.4*	*70.5*
Yes	**49.5**	*43.7*	*55.3*
Residence (region of NM)			
Central (District 1 urban)	**53.5**	*46.2*	*60.9*
Northeast (District 2)	**50.8**	*37.8*	*63.9*
Southwest (District 3)	**56.6**	*46.0*	*67.3*
Southeast (District 4)	**58.3**	*48.0*	*68.7*
Northwest (District 1 rural)	**58.6**	*48.9*	*68.2*
Under 100% poverty			
No	**56.0**	*47.8*	*64.3*
Yes	**54.7**	*49.3*	*60.2*
Health insurance before pregnancy			
No	**58.8**	*53.3*	*64.3*
Yes	**50.0**	*42.8*	*57.1*
Medicaid paid prenatal care / delivery			
No	**53.5**	*46.6*	*60.5*
Yes	**56.7**	*51.1*	*62.3*

Postpartum Use of Contraception

	%	Error Margin	
		lower	upper
All mothers	**82.5**	*80.4*	*84.6*
Maternal characteristic			
Age (years)			
15-17	**78.4**	*68.3*	*88.5*
18-19	**80.7**	*74.0*	*87.5*
20-24	**81.2**	*77.2*	*85.1*
25-34	**85.0**	*82.0*	*88.1*
35 +	**80.1**	*73.5*	*86.8*
Ethnicity / race			
Non-Hispanic White	**85.8**	*82.4*	*89.2*
Native American	**76.5**	*71.1*	*81.9*
Hispanic White	**81.9**	*78.8*	*85.1*
African American †			
Other †			
Education			
Less than high school	**77.8**	*73.0*	*82.5*
High school	**83.2**	*79.8*	*86.7*
More than high school	**86.3**	*83.2*	*89.4*
Marital status			
Married	**86.8**	*84.3*	*89.3*
Not married	**77.7**	*74.2*	*81.1*
Any previous live birth			
No	**79.6**	*76.0*	*83.2*
Yes	**84.4**	*81.9*	*87.0*
Residence (region of NM)			
Central (District 1 urban)	**85.4**	*82.2*	*88.6*
Northeast (District 2)	**81.3**	*75.3*	*87.2*
Southwest (District 3)	**81.0**	*75.5*	*86.5*
Southeast (District 4)	**83.4**	*77.9*	*88.8*
Northwest (District 1 rural)	**77.1**	*71.7*	*82.5*
Under 100% poverty			
No	**86.8**	*83.8*	*89.8*
Yes	**79.8**	*76.8*	*82.9*
Medicaid paid prenatal care &/or delivery			
No	**81.0**	*77.9*	*84.1*
Yes	**83.8**	*80.9*	*86.7*
Unintended pregnancy			
Wanted earlier or then	**83.9**	*81.1*	*86.8*
Wanted later or never	**83.7**	*80.5*	*86.9*

Drinking Alcohol During 3 Months Before Pregnancy

	%	Error Margin	
		lower	upper
All mothers	**44.7**	*41.9*	*47.5*
Maternal characteristic			
Age (years)			
15-17	**34.4**	*22.7*	*46.1*
18-19	**35.0**	*26.7*	*43.2*
20-24	**46.1**	*41.0*	*51.2*
25-34	**48.3**	*44.1*	*52.6*
35 +	**43.6**	*35.1*	*52.1*
Ethnicity / race			
Non-Hispanic White	**53.1**	*48.3*	*57.9*
Native American	**33.3**	*27.4*	*39.2*
Hispanic White	**42.8**	*38.8*	*46.8*
African American †			
Other †			
Education			
Less than high school	**32.0**	*26.6*	*37.4*
High school	**44.0**	*39.3*	*48.7*
More than high school	**54.3**	*49.8*	*58.9*
Marital status			
Married	**46.0**	*42.2*	*49.8*
Not married	**43.2**	*39.1*	*47.4*
Any previous live birth			
No	**50.3**	*45.9*	*54.7*
Yes	**41.0**	*37.5*	*44.6*
Residence (region of NM)			
Central (District 1 urban)	**51.1**	*46.5*	*55.6*
Northeast (District 2)	**43.6**	*35.9*	*51.4*
Southwest (District 3)	**43.6**	*36.7*	*50.5*
Southeast (District 4)	**41.2**	*34.2*	*48.3*
Northwest (District 1 rural)	**34.6**	*28.4*	*40.9*
Income < 100% poverty			
No	**56.2**	*51.7*	*60.7*
Yes	**38.1**	*34.4*	*41.8*
Health insurance before pregnancy			
No	**38.4**	*34.7*	*42.2*
Yes	**52.1**	*48.0*	*56.1*
Medicaid paid prenatal care &/or delivery			
No	**47.4**	*43.4*	*51.5*
Yes	**42.3**	*38.5*	*46.2*
Pregnancy unintended			
Wanted earlier or then	**41.0**	*37.2*	*44.8*
Wanted later or never	**50.5**	*46.1*	*54.9*

Drinking Alcohol During the Last 3 Months of Pregnancy

	%	Error Margin	
		lower	upper
All mothers	**4.1**	*3.0*	*5.2*
Maternal characteristic			
Age (years)			
15-17†	**0.9**	*0.0*	*2.2*
18-19†	**1.1**	*0.0*	*2.4*
20-24	**3.2**	*1.4*	*5.0*
25-34	**4.7**	*2.9*	*6.4*
35 +	**9.7**	*4.7*	*14.7*
Ethnicity / race			
Non-Hispanic White	**6.2**	*3.9*	*8.6*
Native American	**1.8**	*0.1*	*3.5*
Hispanic White	**3.1**	*1.8*	*4.4*
African American †			
Other †			
Education			
Less than high school	**3.4**	*1.4*	*5.3*
High school	**3.4**	*1.7*	*5.1*
More than high school	**5.4**	*3.4*	*7.5*
Marital status			
Married	**4.7**	*3.1*	*6.3*
Not married	**3.4**	*2.0*	*4.8*
Any previous live birth			
No	**3.6**	*2.0*	*5.2*
Yes	**4.4**	*3.0*	*5.8*
Residence (region of NM)			
Central (District 1 urban)	**5.4**	*3.4*	*7.5*
Northeast (District 2)	**1.7**	*0.0*	*3.4*
Southwest (District 3)	**4.8**	*2.0*	*7.5*
Southeast (District 4)	**2.8**	*0.5*	*5.0*
Northwest (District 1 rural)	**3.5**	*1.0*	*5.9*
Income < 100% poverty			
No	**5.6**	*3.5*	*7.7*
Yes	**3.0**	*1.8*	*4.3*
Medicaid paid prenatal care &/or delivery			
No	**4.4**	*2.7*	*6.1*
Yes	**3.8**	*2.5*	*5.2*
Pregnancy unintended			
Wanted earlier or then	**4.0**	*2.5*	*5.5*
Wanted later or never	**4.7**	*2.9*	*6.5*

Tobacco smoking during 3 months before pregnancy

	%	Error Margin	
		lower	upper
All mothers	**25.6**	*23.1*	*28.1*
Maternal characteristic			
Age (years)			
15-17	**42.4**	*30.1*	*54.6*
18-19	**34.1**	*25.8*	*42.4*
20-24	**31.4**	*26.6*	*36.2*
25-34	**20.1**	*16.6*	*23.6*
35 +	**12.7**	*7.0*	*18.3*
Ethnicity / race			
Non-Hispanic White	**32.2**	*27.6*	*36.8*
Native American	**20.5**	*15.5*	*25.5*
Hispanic White	**22.8**	*19.3*	*26.4*
African American †			
Other †			
Education			
Less than high school	**33.4**	*27.9*	*38.9*
High school	**26.7**	*22.4*	*31.0*
More than high school	**18.8**	*15.2*	*22.3*
Marital status			
Married	**19.3**	*16.2*	*22.3*
Not married	**33.0**	*29.0*	*36.9*
Any previous live birth			
No	**29.8**	*25.7*	*34.0*
Yes	**22.8**	*19.7*	*25.9*
Residence (region of NM)			
Central (District 1 urban)	**23.2**	*19.3*	*27.1*
Northeast (District 2)	**23.2**	*16.6*	*29.9*
Southwest (District 3)	**25.2**	*19.0*	*31.4*
Southeast (District 4)	**35.6**	*28.7*	*42.5*
Northwest (District 1 rural)	**22.6**	*16.9*	*28.3*
Income < 100% poverty			
No	**17.9**	*14.2*	*21.5*
Yes	**31.2**	*27.7*	*34.8*
Health insurance before pregnancy			
No	**33.2**	*29.6*	*36.9*
Yes	**16.9**	*13.8*	*20.1*
Medicaid paid prenatal care &/or delivery			
No	**15.8**	*12.8*	*18.8*
Yes	**34.5**	*30.7*	*38.2*
Pregnancy unintended			
Wanted earlier or then	**21.0**	*17.7*	*24.2*
Wanted later or never	**31.0**	*26.8*	*35.1*

Quit rates: tobacco smoking during last 3 months of pregnancy

Among mothers who smoked during 3 months before pregnancy.

	%	Error Margin	
		lower	upper
Quit (did not smoke)	**58.0**	*52.3*	*63.7*
Continued smoking	**42.0**	*36.3*	*47.7*

Tobacco smoking during the last 3 months of pregnancy

	%	Error Margin	
		lower	upper
All mothers	**11.1**	*9.3*	*12.9*
Maternal characteristic			
Age (years)			
15-17	**12.8**	*4.6*	*20.9*
18-19	**16.2**	*9.7*	*22.7*
20-24	**11.2**	*7.9*	*14.5*
25-34	**10.3**	*7.6*	*13.0*
35 +	**7.5**	*2.9*	*12.1*
Ethnicity / race			
Non-Hispanic White	**18.9**	*15.1*	*22.8*
Native American	**4.9**	*2.0*	*7.8*
Hispanic White	**7.5**	*5.3*	*9.7*
African American †			
Other †			
Education			
Less than high school	**16.1**	*11.8*	*20.4*
High school	**11.6**	*8.5*	*14.7*
More than high school	**7.5**	*5.1*	*9.9*
Marital status			
Married	**8.7**	*6.5*	*10.9*
Not married	**13.8**	*10.9*	*16.8*
Any previous live birth			
No	**9.8**	*7.0*	*12.5*
Yes	**12.0**	*9.6*	*14.4*
Residence (region of NM)			
Central (District 1 urban)	**10.4**	*7.7*	*13.2*
Northeast (District 2)	**7.7**	*3.5*	*11.8*
Southwest (District 3)	**11.1**	*6.5*	*15.6*
Southeast (District 4)	**16.5**	*11.1*	*22.0*
Northwest (District 1 rural)	**9.7**	*5.5*	*14.0*
Income < 100% poverty			
No	**7.5**	*4.9*	*10.0*
Yes	**13.9**	*11.2*	*16.5*
Medicaid paid prenatal care &/or delivery			
No	**6.6**	*4.5*	*8.7*
Yes	**15.1**	*12.2*	*17.9*
Pregnancy unintended			
Wanted earlier or then	**9.3**	*7.0*	*11.6*
Wanted later or never	**13.0**	*9.9*	*16.0*

Current tobacco smoking

	%	Error Margin	
		lower	upper
All mothers	**19.8**	*17.5*	*22.1*
Maternal characteristic			
Age (years)			
15-17	**34.2**	*22.8*	*45.6*
18-19	**25.8**	*18.2*	*33.4*
20-24	**24.7**	*20.2*	*29.1*
25-34	**14.9**	*11.8*	*18.0*
35 +	**10.6**	*5.6*	*15.7*
Ethnicity / race			
Non-Hispanic White	**27.0**	*22.7*	*31.4*
Native American	**15.8**	*11.1*	*20.5*
Hispanic White	**16.2**	*13.2*	*19.3*
African American †			
Other †			
Education			
Less than high school	**28.2**	*23.0*	*33.3*
High school	**21.0**	*17.1*	*24.9*
More than high school	**12.6**	*9.6*	*15.7*
Marital status			
Married	**12.9**	*10.3*	*15.5*
Not married	**27.7**	*23.9*	*31.4*
Any previous live birth			
No	**22.0**	*18.3*	*25.8*
Yes	**18.4**	*15.5*	*21.2*
Residence (region of NM)			
Central (District 1 urban)	**18.2**	*14.8*	*21.7*
Northeast (District 2)	**16.3**	*10.4*	*22.2*
Southwest (District 3)	**19.8**	*14.2*	*25.4*
Southeast (District 4)	**24.2**	*17.9*	*30.4*
Northwest (District 1 rural)	**21.9**	*16.2*	*27.5*
Income < 100% poverty			
No	**12.6**	*9.5*	*15.8*
Yes	**25.2**	*21.9*	*28.5*
Medicaid paid prenatal care &/or delivery			
No	**10.5**	*8.0*	*13.0*
Yes	**28.1**	*24.6*	*31.6*
Pregnancy unintended			
Wanted earlier or then	**15.7**	*12.9*	*18.5*
Wanted later or never	**25.1**	*21.2*	*29.0*

Infant exposed to tobacco smoke

	%	Error Margin	
		lower	*upper*
All mothers	**6.1**	*4.7*	*7.5*
Maternal characteristic			
Age (years)			
15-17 †	**1.2**	*0.0*	*2.7*
18-19	**9.9**	*4.6*	*15.1*
20-24	**7.4**	*4.7*	*10.1*
25-34	**4.9**	*3.0*	*6.7*
35 +	**6.2**	*2.0*	*10.4*
Ethnicity / race			
Non-Hispanic White	**10.9**	*7.7*	*14.0*
Native American	**4.9**	*2.1*	*7.7*
Hispanic White	**3.4**	*2.0*	*4.8*
African American †			
Other †			
Education			
Less than high school	**6.4**	*3.5*	*9.3*
High school	**7.2**	*4.8*	*9.6*
More than high school	**5.1**	*3.0*	*7.1*
Marital status			
Married	**5.5**	*3.8*	*7.3*
Not married	**6.7**	*4.7*	*8.8*
Any previous live birth			
No	**4.5**	*2.6*	*6.4*
Yes	**7.2**	*5.3*	*9.0*
Residence (region of NM)			
Central (District 1 urban)	**5.1**	*3.1*	*7.1*
Northeast (District 2)	**2.3**	*0.0*	*4.5*
Southwest (District 3)	**7.0**	*3.5*	*10.5*
Southeast (District 4)	**10.7**	*6.2*	*15.1*
Northwest (District 1 rural)	**5.8**	*2.7*	*8.9*
Income < 100% poverty			
No	**4.6**	*2.7*	*6.4*
Yes	**7.6**	*5.6*	*9.7*
Medicaid paid prenatal care &/or delivery			
No	**4.0**	*2.4*	*5.5*
Yes	**8.0**	*5.9*	*10.1*
Pregnancy unintended			
Wanted earlier or then	**4.4**	*2.8*	*6.0*
Wanted later or never	**8.0**	*5.6*	*10.5*
Mother smoking after delivery			
Not smoking now	**3.2**	*2.1*	*4.2*
Smoking now	**18.4**	*13.3*	*23.5*

Partner abuse during 12 months before pregnancy

	%	Error Margin	
		lower	upper
All mothers	**7.7**	*6.2*	*9.1*
Maternal characteristic			
Age (years)			
15-17	**6.9**	*1.3*	*12.6*
18-19	**7.9**	*3.5*	*12.3*
20-24	**10.9**	*7.8*	*14.0*
25-34	**5.7**	*3.8*	*7.6*
35 +	**6.5**	*2.2*	*10.8*
Ethnicity / race			
Non-Hispanic White	**7.0**	*4.5*	*9.5*
Native American	**12.9**	*8.9*	*17.0*
Hispanic White	**6.7**	*4.7*	*8.8*
African American †			
Other †			
Education			
Less than high school	**8.0**	*4.9*	*11.0*
High school	**9.0**	*6.5*	*11.6*
More than high school	**6.6**	*4.3*	*8.9*
Marital status			
Married	**4.0**	*2.5*	*5.4*
Not married	**11.9**	*9.3*	*14.5*
Any previous live birth			
No	**6.1**	*4.0*	*8.3*
Yes	**8.7**	*6.8*	*10.7*
Residence (region of NM)			
Central (District 1 urban)	**6.1**	*3.9*	*8.4*
Northeast (District 2)	**6.7**	*3.0*	*10.3*
Southwest (District 3)	**7.8**	*4.2*	*11.4*
Southeast (District 4)	**8.7**	*4.8*	*12.6*
Northwest (District 1 rural)	**11.2**	*7.3*	*15.0*
Income < 100% poverty			
No	**3.8**	*2.0*	*5.6*
Yes	**10.5**	*8.3*	*12.8*
Medicaid paid prenatal care &/or delivery			
No	**5.0**	*3.2*	*6.7*
Yes	**10.1**	*7.8*	*12.4*
Intention of pregnancy			
Wanted earlier or then	**5.7**	*4.0*	*7.5*
Wanted later or never	**9.5**	*7.0*	*12.0*

Partner abuse during 12 months before pregnancy (continued)

	%	Error Margin	
		lower	upper
Stress of unpaid bills			
No	**5.3**	*3.9*	*6.8*
Yes	**13.9**	*10.4*	*17.4*
Stress of mother &/or father losing job			
No	**5.9**	*4.4*	*7.5*
Yes	**13.0**	*9.3*	*16.8*
Someone close had drug/drinking problem			
No	**4.9**	*3.6*	*6.2*
Yes	**18.6**	*13.9*	*23.3*

Services received by mothers who were abused by their partner during 12 months before pregnancy

Based on 125 respondents to NM PRAMS (estimated 1990 New Mexican mothers with live birth in 1999).

Services Received	%	Error Margin	
		lower	upper
Prenatal health care worker discussed partner abuse	**41.0**	*31.1*	*50.9*
Family violence service during pregnancy	**4.7**	*0.6*	*8.9*
Family violence service after delivery	**6.9**	*2.0*	*11.9*
Counseling service during pregnancy	**15.0**	*7.8*	*22.2*
Counseling service after delivery	**15.4**	*8.2*	*22.6*

Partner abuse during pregnancy

	%	Error Margin	
		lower	upper
All mothers	**6.3**	*4.9*	*7.6*
Maternal characteristic			
Age (years)			
15-17 †	**4.0**	*0.0*	*8.2*
18-19	**4.8**	*1.3*	*8.4*
20-24	**8.3**	*5.5*	*11.1*
25-34	**5.7**	*3.7*	*7.7*
35 +	**5.3**	*1.4*	*9.2*
Ethnicity / race			
Non-Hispanic White	**5.6**	*3.3*	*7.9*
Native American	**9.6**	*5.9*	*13.3*
Hispanic White	**5.5**	*3.6*	*7.4*
African American †			
Other †			
Education			
Less than high school	**7.3**	*4.3*	*10.3*
High school	**7.5**	*5.1*	*9.9*
More than high school	**4.5**	*2.6*	*6.4*
Marital status			
Married	**4.0**	*2.5*	*5.6*
Not married	**8.8**	*6.5*	*11.1*
Any previous live birth			
No	**5.2**	*3.2*	*7.2*
Yes	**7.0**	*5.1*	*8.8*
Residence (region of NM)			
Central (District 1 urban)	**5.4**	*3.2*	*7.5*
Northeast (District 2)	**5.4**	*2.0*	*8.7*
Southwest (District 3)	**7.7**	*4.2*	*11.3*
Southeast (District 4)	**5.9**	*2.4*	*9.3*
Northwest (District 1 rural)	**8.0**	*4.6*	*11.4*
Income < 100% poverty			
No	**2.9**	*1.3*	*4.6*
Yes	**9.0**	*6.8*	*11.1*
Medicaid paid prenatal care &/or delivery			
No	**4.2**	*2.5*	*5.9*
Yes	**8.1**	*6.0*	*10.1*
Pregnancy unintended			
Wanted earlier or then	**4.4**	*2.8*	*6.0*
Wanted later or never	**8.1**	*5.7*	*10.5*

Partner abuse during pregnancy (continued)

	%	Error Margin	
		lower	upper
Stress: unpaid bills			
No	**4.6**	*3.2*	*6.0*
Yes	**10.6**	*7.5*	*13.8*
Stress: mother &/or father losing job			
No	**4.2**	*2.9*	*5.5*
Yes	**12.9**	*9.1*	*16.7*
Someone close had drug/drinking problem			
No	**3.6**	*2.4*	*4.7*
Yes	**16.7**	*12.1*	*21.3*

Services received by mothers who were abused by their partner during pregnancy

Based on 96 respondents who admitted partner abuse during pregnancy (estimated 1620 NM mothers with live birth in 1999).

Services Received	%	Error Margin	
		lower	upper
Prenatal health care worker discussed partner abuse	**48.1**	*36.6*	*59.5*
Family violence service during pregnancy	**4.8**	*0.0*	*9.5*
Family violence service after delivery	**8.7**	*2.3*	*15.0*
Counseling service during pregnancy	**16.3**	*7.6*	*24.9*
Counseling service after delivery	**14.1**	*6.2*	*21.9*

Mothers who were overweight (BMI > 26 kg/m^2)

	%	Error Margin	
		lower	*upper*
All mothers	**29.7**	*27.1*	*32.3*
Maternal characteristic			
Age (years)			
15-17	**15.8**	*6.7*	*24.9*
18-19	**16.3**	*10.0*	*22.7*
20-24	**29.8**	*24.9*	*34.7*
25-34	**35.5**	*31.3*	*39.6*
35 +	**29.8**	*21.9*	*37.8*
Ethnicity / race			
Non-Hispanic White	**24.4**	*20.3*	*28.6*
Native American	**43.5**	*37.1*	*49.9*
Hispanic White	**31.0**	*27.0*	*34.9*
African American †			
Other †			
Education			
Less than high school	**27.4**	*22.0*	*32.9*
High school	**33.2**	*28.7*	*37.8*
More than high school	**28.5**	*24.4*	*32.6*
Marital status			
Married	**30.4**	*26.9*	*34.0*
Not married	**28.9**	*25.1*	*32.8*
Any previous live birth			
No	**22.6**	*18.8*	*26.4*
Yes	**34.5**	*30.9*	*38.0*
Residence (region of NM)			
Central (District 1 urban)	**28.7**	*24.5*	*32.9*
Northeast (District 2)	**28.8**	*21.4*	*36.1*
Southwest (District 3)	**29.4**	*22.9*	*35.9*
Southeast (District 4)	**28.9**	*22.4*	*35.5*
Northwest (District 1 rural)	**34.4**	*28.2*	*40.6*
Income < 100% poverty			
No	**26.9**	*22.9*	*30.9*
Yes	**31.7**	*28.0*	*35.3*
Medicaid paid prenatal care &/or delivery			
No	**29.6**	*25.9*	*33.3*
Yes	**29.9**	*26.2*	*33.6*
Pregnancy unintended			
Wanted earlier or then	**31.4**	*27.7*	*35.0*
Wanted later or never	**27.3**	*23.3*	*31.3*

Treatment during pregnancy for gestational diabetes

	%	Error Margin	
		lower	*upper*
All mothers	**6.0**	*4.6*	*7.3*
Age (years)			
15-17	**0.0**	*0.0*	*0*
18-19	**4.3**	*0.9*	*7.62*
20-24	**3.1**	*1.3*	*4.98*
25-34	**7.4**	*5.2*	*9.65*
35 +	**14.1**	*8.1*	*20.2 2*
Ethnicity / race			
Non-Hispanic White	**5.6**	*3.3*	*7.79*
Native American	**7.7**	*4.4*	*11.0 2*
Hispanic White	**6.0**	*4.0*	*7.96*
African American †			
Other †			
Education			
Less than high school	**5.9**	*3.1*	*8.66*
High school	**6.5**	*4.2*	*8.83*
More than high school	**5.2**	*3.2*	*7.13*
Marital status			
Married	**5.5**	*3.8*	*7.27*
Not married	**6.4**	*4.4*	*8.46*
Any previous live birth			
No	**4.9**	*3.0*	*6.89*
Yes	**6.6**	*4.8*	*8.42*
Residence (region of NM)			
Central (District 1 urban)	**6.7**	*4.4*	*9.01*
Northeast (District 2)	**7.9**	*3.7*	*12.2 1*
Southwest (District 3)	**5.7**	*2.5*	*8.94*
Southeast (District 4)	**2.6**	*0.2*	*5.1*
Northwest (District 1 rural)	**6.3**	*3.4*	*9.19*
Income < 100% poverty			
No	**6.7**	*4.5*	*8.88*
Yes	**4.7**	*3.1*	*6.33*
Medicaid paid prenatal care &/or delivery			
No	**6.4**	*4.5*	*8.27*
Yes	**5.6**	*3.8*	*7.45*
Pregnancy unintended			
Wanted earlier or then	**6.4**	*4.5*	*8.24*
Wanted later or never	**5.4**	*3.3*	*7.53*
Overweight: BMI (kg/m^2>26)			
No	**3.1**	*1.9*	*4.24*
Yes	**11.2**	*7.8*	*14.61*

Late (after first trimester) or no prenatal care (PNC)

	%	Error Margin	
		lower	upper
All mothers			
Timely prenatal care(PNC)	**67.7**	*65.0*	*70.5*
Late or no PNC	**32.3**	*29.5*	*35.0*
Maternal characteristic			
Age (years)			
15-17	**52.7**	*40.4*	*65.0*
18-19	**38.5**	*29.9*	*47.1*
20-24	**35.9**	*30.8*	*40.9*
25-34	**25.7**	*21.8*	*29.6*
35 +	**27.0**	*19.2*	*34.8*
Ethnicity / race			
Non-Hispanic White	**27.1**	*22.7*	*31.6*
Native American	**45.5**	*39.1*	*51.9*
Hispanic White	**32.2**	*28.2*	*36.3*
African American †			
Other †			
Education			
Less than high school	**47.2**	*41.4*	*53.0*
High school	**30.4**	*25.9*	*34.9*
More than high school	**20.8**	*17.1*	*24.5*
Marital status			
Married	**23.8**	*20.4*	*27.2*
Not married	**41.7**	*37.5*	*45.9*
Any previous live birth			
No	**32.4**	*28.0*	*36.8*
Yes	**32.2**	*28.7*	*35.7*
Residence (region of NM)			
Central (District 1 urban)	**32.3**	*27.8*	*36.8*
Northeast (District 2)	**30.7**	*23.2*	*38.1*
Southwest (District 3)	**25.8**	*19.5*	*32.1*
Southeast (District 4)	**29.6**	*22.6*	*36.5*
Northwest (District 1 rural)	**44.2**	*37.7*	*50.8*
Income < 100% poverty			
No	**21.5**	*17.6*	*25.4*
Yes	**39.2**	*35.4*	*43.1*
Medicaid paid prenatal care &/or delivery			
No	**27.5**	*23.7*	*31.3*
Yes	**36.5**	*32.6*	*40.4*
Pregnancy unintended			
Wanted earlier or then	**25.1**	*21.6*	*28.6*
Wanted later or never	**39.9**	*35.5*	*44.4*

Home visiting services during pregnancy

	%	Error Margin	
		lower	*upper*
All mothers	**10.5**	*8.8*	*12.2*
Maternal characteristic			
Age (years)			
15-17	**17.5**	*8.7*	*26.2*
18-19	**13.7**	*7.9*	*19.5*
20-24	**13.9**	*10.4*	*17.4*
25-34	**6.8**	*4.7*	*8.9*
35 +	**7.0**	*2.9*	*11.2*
Ethnicity / race			
Non-Hispanic White	**6.0**	*3.7*	*8.3*
Native American	**18.1**	*13.2*	*23.0*
Hispanic White	**10.9**	*8.3*	*13.4*
African American †			
Other †			
Education			
Less than high school	**14.3**	*10.4*	*18.3*
High school	**10.7**	*7.8*	*13.7*
More than high school	**7.3**	*5.0*	*9.7*
Marital status			
Married	**6.5**	*4.6*	*8.4*
Not married	**15.1**	*12.2*	*18.0*
Any previous live birth			
No	**11.5**	*8.8*	*14.3*
Yes	**9.9**	*7.7*	*12.0*
Residence (region of NM)			
Central (District 1 urban)	**9.0**	*6.4*	*11.6*
Northeast (District 2)	**11.0**	*6.1*	*15.9*
Southwest (District 3)	**10.4**	*6.0*	*14.7*
Southeast (District 4)	**10.0**	*5.6*	*14.4*
Northwest (District 1 rural)	**14.6**	*10.3*	*18.9*
Income < 100% poverty			
No	**5.2**	*3.2*	*7.2*
Yes	**14.9**	*12.2*	*17.6*
Medicaid paid prenatal care &/or delivery			
No	**6.2**	*4.4*	*8.0*
Yes	**14.4**	*11.6*	*17.1*
WIC during pregnancy			
No	**5.7**	*3.7*	*7.6*
Yes	**14.4**	*11.8*	*17.0*
Intention of pregnancy			
Wanted earlier or then	**9.4**	*7.2*	*11.7*
Wanted later or never	**12.1**	*9.2*	*15.0*

Home visiting services after delivery

	%	Error Margin	
		lower	*upper*
All mothers	**17.6**	*15.5*	*19.7*
Maternal characteristic			
Age (years)			
15-17	**23.9**	*13.6*	*34.2*
18-19	**19.4**	*12.9*	*25.9*
20-24	**19.2**	*15.3*	*23.1*
25-34	**14.9**	*12.0*	*17.9*
35 +	**16.1**	*10.2*	*22.0*
Ethnicity / race			
Non-Hispanic White	**15.3**	*11.9*	*18.7*
Native American	**30.8**	*25.1*	*36.6*
Hispanic White	**15.2**	*12.3*	*18.1*
African American †			
Other †			
Education			
Less than high school	**18.0**	*13.7*	*22.4*
High school	**17.0**	*13.6*	*20.4*
More than high school	**17.5**	*14.1*	*20.9*
Marital status			
Married	**15.1**	*12.5*	*17.7*
Not married	**20.5**	*17.2*	*23.7*
Any previous live birth			
No	**20.3**	*16.8*	*23.7*
Yes	**15.9**	*13.3*	*18.4*
Residence (region of NM)			
Central (District 1 urban)	**19.9**	*16.3*	*23.4*
Northeast (District 2)	**11.8**	*6.8*	*16.8*
Southwest (District 3)	**15.7**	*10.7*	*20.6*
Southeast (District 4)	**14.9**	*9.8*	*19.9*
Northwest (District 1 rural)	**22.3**	*17.2*	*27.4*
Income < 100% poverty			
No	**14.6**	*11.5*	*17.7*
Yes	**19.6**	*16.6*	*22.5*
Medicaid paid prenatal care &/or delivery			
No	**14.8**	*12.0*	*17.6*
Yes	**20.1**	*17.1*	*23.2*
Intention of pregnancy			
Wanted earlier or then	**15.1**	*12.5*	*17.8*
Wanted later or never	**20.9**	*17.4*	*24.4*

WIC services during pregnancy

	%	Error Margin	
		lower	*upper*
All mothers	**56.1**	*53.3*	*58.8*
Maternal characteristic			
Age (years)			
15-17	**73.4**	*62.4*	*84.4*
18-19	**71.9**	*64.2*	*79.6*
20-24	**69.0**	*64.3*	*73.7*
25-34	**45.5**	*41.3*	*49.7*
35 +	**31.8**	*23.9*	*39.7*
Ethnicity / race			
Non-Hispanic White	**38.5**	*33.8*	*43.2*
Native American	**66.4**	*60.6*	*72.2*
Hispanic White	**65.3**	*61.4*	*69.2*
African American †			
Other †			
Education			
Less than high school	**78.8**	*74.2*	*83.5*
High school	**60.4**	*55.8*	*65.0*
More than high school	**34.7**	*30.3*	*39.0*
Marital status			
Married	**42.0**	*38.3*	*45.8*
Not married	**72.0**	*68.3*	*75.7*
Any previous live birth			
No	**55.5**	*51.1*	*59.9*
Yes	**56.6**	*53.0*	*60.1*
Residence (region of NM)			
Central (District 1 urban)	**45.3**	*40.8*	*49.8*
Northeast (District 2)	**51.5**	*43.7*	*59.3*
Southwest (District 3)	**67.2**	*60.7*	*73.7*
Southeast (District 4)	**66.7**	*60.0*	*73.4*
Northwest (District 1 rural)	**62.7**	*56.5*	*68.9*
Income < 100% poverty			
No	**25.8**	*21.9*	*29.8*
Yes	**76.9**	*73.7*	*80.0*
Medicaid paid prenatal care &/or delivery			
No	**29.3**	*25.6*	*32.9*
Yes	**79.6**	*76.5*	*82.7*
Pregnancy unintended			
Wanted earlier or then	**51.8**	*47.9*	*55.6*
Wanted later or never	**60.0**	*55.7*	*64.3*

Services for teen mothers during pregnancy
Among teen mothers with various characteristics, experiences or behaviors. Unless otherwise noted, "teen" refers to 15-19 year olds.

	%	Error Margin	
		lower	upper
All teen mothers	**21.7**	*15.9*	*27.4*
Maternal characteristic			
Age (years)			
15-17	**36.1**	*24.5*	*47.7*
18-19	**14.4**	*8.4*	*20.3*
Ethnicity / race			
Non-Hispanic White †	**8.8**	*0.0*	*17.6*
Native American	**30.1**	*15.9*	*44.4*
Hispanic White	**24.0**	*16.3*	*31.7*
African American †			
Other †			
Education			
Less than high school	**26.1**	*18.0*	*34.1*
High school	**17.8**	*8.0*	*27.6*
More than high school †			
Marital status			
Married †	**9.8**	*0.4*	*19.1*
Not married	**24.4**	*17.7*	*31.0*
Any previous live birth			
No	**23.4**	*16.7*	*30.1*
Yes	**15.6**	*5.1*	*26.1*
Residence (region of NM)			
Central (District 1 urban)	**18.0**	*8.7*	*27.3*
Northeast (District 2)	**26.4**	*8.7*	*44.1*
Southwest (District 3)	**30.5**	*14.2*	*46.8*
Southeast (District 4)	**19.8**	*7.6*	*32.0*
Northwest (District 1 rural)	**19.3**	*7.8*	*30.7*
Income < 100% poverty			
No	**24.7**	*7.1*	*42.4*
Yes	**22.7**	*15.9*	*29.4*
Medicaid paid prenatal care &/or delivery			
No	**34.3**	*19.8*	*48.8*
Yes	**18.3**	*12.3*	*24.2*
Pregnancy unintended			
Wanted earlier or then	**14.7**	*5.4*	*24.0*
Wanted later or never	**23.5**	*15.8*	*31.3*

Services for teen mothers after delivery

Among teen mothers with various characteristics, experiences, or behaviors. Unless otherwise noted, "teen" refers to 15-19 year olds.

	%	Error Margin	
		lower	*upper*
All teen mothers	**11.1**	*6.6*	*15.6*
Maternal characteristic			
Age (years)			
15-17	**21.0**	*11.0*	*31.1*
18-19	**6.1**	*1.8*	*10.3*
Ethnicity / race			
Non-Hispanic White †	**3.2**	*0.0*	*9.2*
Native American †	**7.9**	*0.0*	*17.2*
Hispanic White	**13.6**	*7.4*	*19.7*
African American †			
Other †			
Education			
Less than high school	**14.1**	*7.6*	*20.6*
High school	**7.6**	*0.6*	*14.5*
More than high school †			
Marital status			
Married †	**0.2**	*0.0*	*0.5*
Not married	**13.6**	*8.1*	*19.0*
Any previous live birth			
No	**10.8**	*5.8*	*15.9*
Yes †	**12.0**	*1.9*	*22.1*
Residence (region of NM)			
Central (District 1 urban)	**10.1**	*3.1*	*17.1*
Northeast (District 2)	**10.6**	*0.0*	*23.9*
Southwest (District 3)	**18.2**	*3.9*	*32.4*
Southeast (District 4)	**10.8**	*1.0*	*20.7*
Northwest (District 1 rural)	**6.6**	*0.0*	*14.4*
Income < 100% poverty			
No †			
Yes	**14.4**	*8.5*	*20.2*
Medicaid paid prenatal care &/or delivery			
No †	**12.9**	*2.6*	*23.2*
Yes	**10.6**	*5.6*	*15.6*
Pregnancy unintended			
Wanted earlier or then	**7.1**	*0.6*	*13.7*
Wanted later or never	**14.0**	*7.4*	*20.5*

Initiation of breastfeeding

	%	Error Margin	
		lower	*upper*
All mothers	**78.1**	*75.7*	*80.5*
Maternal characteristic			
Age (years)			
15-17	**81.7**	*72.0*	*91.4*
18-19	**68.2**	*60.1*	*76.3*
20-24	**74.3**	*69.8*	*78.9*
25-34	**82.6**	*79.3*	*85.9*
35 +	**80.8**	*73.7*	*87.9*
Ethnicity / race			
Non-Hispanic White	**82.0**	*78.1*	*85.8*
Native American	**79.5**	*74.2*	*84.8*
Hispanic White	**75.3**	*71.7*	*78.9*
African American †			
Other †			
Education			
Less than high school	**72.7**	*67.3*	*78.0*
High school	**73.5**	*69.2*	*77.7*
More than high school	**87.1**	*83.9*	*90.2*
Marital status			
Married	**83.7**	*80.8*	*86.7*
Not married	**71.6**	*67.8*	*75.5*
Any previous live birth			
No	**82.0**	*78.5*	*85.5*
Yes	**75.5**	*72.2*	*78.7*
Residence (region of NM)			
Central (District 1 urban)	**80.7**	*76.9*	*84.4*
Northeast (District 2)	**78.8**	*72.4*	*85.2*
Southwest (District 3)	**77.5**	*71.5*	*83.4*
Southeast (District 4)	**69.3**	*62.5*	*76.0*
Northwest (District 1 rural)	**81.8**	*76.5*	*87.0*
Income < 100% poverty			
No	**83.6**	*80.2*	*87.1*
Yes	**75.2**	*71.9*	*78.6*
Medicaid paid prenatal care &/or delivery			
No	**82.8**	*79.7*	*86.0*
Yes	**73.9**	*70.4*	*77.4*
Intention of pregnancy			
Wanted earlier or then	**80.1**	*76.9*	*83.3*
Wanted later or never	**76.5**	*72.7*	*80.3*

Continuation of breastfeeding for at least 9 weeks among mothers who initiated breastfeeding

	%	Error Margin	
		lower	Upper
All mothers who initiated breastfeeding	**100.0**	*100.0*	*100.0*
Did not continue	**39.7**	*36.6*	*42.8*
Continued at least 9 weeks	**60.3**	*57.2*	*63.4*
Maternal characteristic			
Age (years)			
15-17	**46.3**	*32.8*	*59.7*
18-19	**43.2**	*33.1*	*53.3*
20-24	**52.5**	*46.6*	*58.4*
25-34	**67.8**	*63.4*	*72.2*
35 +	**76.5**	*68.0*	*85.0*
Ethnicity / race			
Non-Hispanic White	**70.5**	*65.6*	*75.3*
Native American	**65.4**	*58.8*	*72.0*
Hispanic White	**51.7**	*46.9*	*56.4*
African American †			
Other †			
Education			
Less than high school	**54.1**	*47.4*	*60.9*
High school	**53.1**	*47.6*	*58.6*
More than high school	**71.3**	*66.9*	*75.7*
Marital status			
Married	**67.0**	*63.0*	*70.9*
Other	**51.3**	*46.4*	*56.2*
Any previous live birth			
No	**57.1**	*52.2*	*61.9*
Yes	**62.6**	*58.6*	*66.7*
Residence (region of NM)			
Central (District 1 urban)	**62.1**	*57.2*	*67.0*
Northeast (District 2)	**74.2**	*66.2*	*82.1*
Southwest (District 3)	**55.0**	*47.0*	*63.0*
Southeast (District 4)	**50.0**	*41.5*	*58.6*
Northwest (District 1 rural)	**59.6**	*52.5*	*66.6*
Under 100% poverty			
No	**66.8**	*62.1*	*71.5*
Yes	**55.3**	*50.9*	*59.7*
Medicaid paid PNC &/or delivery			
No	**68.1**	*64.0*	*72.3*
Yes	**52.4**	*47.9*	*57.0*
Intention of pregnancy			
Wanted earlier or then	**66.4**	*62.4*	*70.5*
Wanted later or never	**50.9**	*45.8*	*56.0*

Infants usually placed on the back to sleep

	%	Error Margin	
		lower	upper
All mothers	**53.6**	*50.7*	*56.4*
Maternal characteristic			
Age (years)			
15-17	**38.9**	*26.8*	*51.0*
18-19	**55.5**	*46.8*	*64.2*
20-24	**55.9**	*50.7*	*61.1*
25-34	**52.8**	*48.5*	*57.2*
35 +	**57.2**	*48.3*	*66.0*
Ethnicity / race			
Non-Hispanic White	**58.7**	*53.8*	*63.6*
Native American	**68.3**	*62.1*	*74.4*
Hispanic White	**47.6**	*43.5*	*51.8*
African American †			
Other †			
Education			
Less than high school	**41.8**	*36.0*	*47.5*
High school	**53.7**	*48.9*	*58.5*
More than high school	**63.5**	*59.0*	*67.9*
Marital status			
Married	**55.7**	*51.8*	*59.5*
Not married	**51.0**	*46.8*	*55.3*
Any previous live birth			
No	**59.7**	*55.2*	*64.2*
Yes	**49.3**	*45.6*	*53.0*
Residence (region of NM)			
Central (District 1 urban)	**59.4**	*54.8*	*64.0*
Northeast (District 2)	**57.1**	*49.2*	*64.9*
Southwest (District 3)	**41.4**	*34.5*	*48.4*
Southeast (District 4)	**38.9**	*31.8*	*46.0*
Northwest (District 1 rural)	**66.1**	*59.6*	*72.6*
Income < 100% poverty			
No	**62.5**	*58.0*	*67.0*
Yes	**49.0**	*45.1*	*52.8*
Medicaid paid prenatal care &/or delivery			
No	**58.2**	*54.1*	*62.3*
Yes	**49.6**	*45.6*	*53.5*
Pregnancy unintended			
Wanted earlier or then	**54.1**	*50.2*	*58.0*
Wanted later or never	**54.5**	*50.0*	*59.0*

Infants usually placed on the back to sleep (continued)

	%	Error Margin	
		lower	upper
Mother smoked during last 3 months pregnancy			
No	**55.0**	*52.0*	*58.0*
Yes	**44.5**	*35.4*	*53.6*
Mother currently smokes			
No	**54.7**	*51.5*	*57.9*
Yes	**48.2**	*41.5*	*54.9*
Infant exposed to tobacco smoke			
No	**54.2**	*51.3*	*57.2*
Yes	**44.3**	*32.7*	*55.9*
Birth weight			
400g-1499g	**49.5**	*34.9*	*64.2*
1500g-2499g	**52.1**	*46.5*	*57.7*
2500g +	**53.8**	*50.8*	*56.8*

Infant 2months of age or younger had appropriate number of well-baby visits

	%	Error Margin	
		lower	upper
All NM mothers	**62.4**	59.6	65.2
Maternal characteristic			
Age (years)			
15-17	**69.6**	58.4	80.7
18-19	**72.1**	64.2	79.9
20-24	**62.7**	57.6	67.7
25-34	**60.1**	55.8	64.4
35 +	**55.1**	46.4	63.7
Ethnicity / race			
Non-Hispanic White	**65.6**	60.9	70.3
Native American	**48.8**	42.3	55.3
Hispanic White	**63.5**	59.5	67.5
African American †			
Other †			
Education			
Less than high school	**56.2**	50.3	62.1
High school	**62.2**	57.5	67.0
More than high school	**67.2**	62.9	71.6
Marital status			
Married	**62.6**	58.8	66.4
Not married	**62.1**	58.0	66.2
At least one previous live birth			
No	**72.6**	68.6	76.6
Yes	**55.6**	51.9	59.3
Residence (region of NM)			
Central (District 1 urban)	**68.6**	64.2	72.9
Northeast (District 2)	**66.8**	59.2	74.4
Southwest (District 3)	**56.8**	49.7	63.9
Southeast (District 4)	**63.5**	56.4	70.5
Northwest (District 1 rural)	**47.8**	41.1	54.5
Income < 100% poverty			
No	**65.5**	61.1	69.9
Yes	**61.4**	57.6	65.2
Medicaid paid prenatal care &/or delivery			
No	**62.2**	58.2	66.1
Yes	**62.5**	58.6	66.4
Pregnancy unintended			
Wanted earlier or then	**60.5**	56.6	64.4
Wanted later or never	**64.3**	60.0	68.7
Birth weight			
400g-1499g †	**73.7**	60.1	87.2
1500g-2499g	**70.5**	65.3	75.6
2500g +	**61.9**	59.0	64.9

Appendix 2

Characteristics of mothers in sample & population & response rates

PRAMS sample, estimated population, and Vital Records population

For all mothers and by maternal characteristic, NM 1999 births.

	Vital Records*	NM PRAMS			
	NM resident births, #	Sample number	Estimated number #	*Margin of error***	
				Lower	*Upper*
All mothers	**27133**	2115	**25917**	*25729*	*26105*
Age (years)					
Total with data	**27000**	2104	**25842**	*25641*	*26043*
15-17	**1810**	133	**1497**	*1143*	*1851*
18-19	**2929**	242	**2958**	*2486*	*3430*
20-24	**8196**	660	**7977**	*7302*	*8652*
25-34	**11176**	846	**10818**	*10127*	*11508*
35 +	**2889**	223	**2592**	*2176*	*3009*
Unknown	**133**	11			
Ethnicity / race					
Total with data	**27133**	2115	**25917**	*25729*	*26105*
Non-Hispanic White	**9126**	623	**8695**	*8036*	*9354*
Native American	**3436**	429	**3396**	*3076*	*3716*
Hispanic white	**13706**	999	**13183**	*12450*	*13916*
African American	**497**	38	**409**	*230*	*588*
Other	**368**	26	**235**	*108*	*361*
Education					
Total with data	**27133**	2007	**24727**	*24398*	*25055*
Less than high school	**7342**	570	**6795**	*6116*	*7474*
High school	**9357**	766	**9178**	*8478*	*9878*
More than high school	**10434**	671	**8754**	*8134*	*9375*
Marital status					
Total with data	**27131**	2115	**25917**	*25729*	*26105*
Married	**14895**	1044	**13766**	*13088*	*14445*
Not married	**12236**	1071	**12151**	*11393*	*12908*
Unknown	**2**	0			
Any previous live birth					
Total with data	**26958**	2107	**25880**	*25686*	*26075*
No	**10807**	874	**10299**	*9588*	*11011*
Yes	**16151**	1233	**15581**	*14873*	*16289*
Unknown	**175**	8			
Residence					
Total with data	**27133**	2115	**25917**	*25729*	*26105*
Central (District 1 urban)	**10303**	807	**9779**	*9088*	*10470*
Northeast (District 2)	**3490**	265	**3415**	*2924*	*3906*
Southwest (District 3)	**5079**	337	**4421**	*3868*	*4974*
Southeast (District 4)	**4037**	283	**4336**	*3777*	*4895*
Northwest (District 1 rural)	**4224**	423	**3967**	*3523*	*4411*
Birth weight					
Total with data	**27031**	2108	**25861**	*25669*	*26054*
400g-1499g	**304**	109	**217**	*167*	*266*
1500g-2499g	**1762**	404	**1538**	*1458*	*1617*
2500g +	**24965**	1595	**24107**	*23908*	*24306*
Unknown or outliers	**102**	7			

* NM Vital Records and Health Statistics, New Mexico Department of Health, Santa Fe, NM: 2001.

** Lower and upper limits of 95% confidence interval

Appendix 3

Response Rates

For all mothers and by maternal characteristic, NM PRAMS 1999 births.
Potential bias is increased for subgroups with lower response rates
Stratum-specific response rates are not shown because there were several changes in the stratification design. Response rates for mothers with "unknown" status available on request.

	Number sampled	Number respondents	Percent responding
All mothers	2115	1519	**71.8**
Age (years)			
Total with data	2104	1515	**72.0**
15-17	133	79	**59.4**
18-19	242	169	**69.8**
20-24	660	458	**69.4**
25-34	846	644	**76.1**
35 +	223	165	**74.0**
Ethnicity / race			
Total with data	2115	1519	**71.8**
Non-Hispanic White	623	485	**77.9**
Native American	429	290	**67.6**
Hispanic white	999	697	**69.8**
African American	38	29	**76.3**
Other	26	18	**69.2**
Education			
Total with data	2007	1449	**72.2**
Less than high school	570	359	**63.0**
High school	766	542	**70.8**
More than high school	671	548	**81.7**
Marital status			
Total with data	2115	1519	**71.8**
Married	1044	804	**77.0**
Not married	1071	715	**66.8**
Any previous live birth			
Total with data	2107	1516	**72.0**
No	874	624	**71.4**
Yes	1233	892	**72.3**
Residence			
Total with data	2115	1519	**71.8**
Central (District 1 urban)	807	573	**71.0**
Northeast (District 2)	265	189	**71.3**
Southwest (District 3)	337	242	**71.8**
Southeast (District 4)	283	223	**78.8**
Northwest (District 1 rural)	423	292	**69.0**
Birth weight			
Total with data	2108	1515	**71.9**
400g-1499g	109	69	**63.3**
1500g-2499g	404	290	**71.8**
2500g +	1595	1156	**72.5**

Appendix 4

Definition of Variables & Relation To Performance Measures

Indicators (variables)

PRAMS question numbers, related Healthy People objectives, national Maternal and Child Health (Title V) and NM Department of Health performance measures. Question # refers to PRAMS survey questionnaire phase 3 when a number is given. In that column, BC indicates a birth certificate variable.

Question #	Indicator and definition - Listed in the order of this report	HP 2010 objective [1]	MCHB [2]	NMDOH[3]
20	Awareness of folic acid benefits			
5	Unintended pregnancy	9.1		x
5	Intended pregnancy	9.1		x
8	Contraceptive use/non-use among unintended pregnancies	9.3		
60	Contraceptive use after delivery			
25	Drinking alcohol during the 3 months before pregnancy			
26	Drinking alcohol during the last 3 months of pregnancy	16.17a		
16d	Prenatal discussion about drinking alcohol			
22	Smoking during the 3 months before pregnancy			
23	Smoking during the last 3 months of pregnancy	16.17c		
24	Currently smoking	27.6		
22, 23	Smoking cessation during pregnancy			
44	Infant exposure to tobacco smoke			
31	Physical abuse by partner during 12 months before pregnancy	15.34		
32	Physical abuse by partner during pregnancy	15.34		
16m	Prenatal discussion about partner abuse			
18, 19	Excessive body weight: BMI=Weight in kg/height in cm^2			
55	Diabetes			
BC	Late or no prenatal care: CDC PRAMS reports late or no prenatal care based on the respondent's self-report	16.6	18	
16	Prenatal discussions			
63e	Home visiting services			
17	WIC participation during pregnancy			
63f	Teen services			
42	Initiation of breastfeeding	16.19		x
42	Continuation of breastfeeding In this report, defined as breastfeeding at least 9 weeks	16.19	9	x
45	Infant sleep position on back	16.13		
46	Well child care – adequate number of visits The American Academy of Pediatrics recommends preventive care at these times during the first 6 months of life: 2 to 4 days, by one month, then at 2, 4, and 6 months. In this report, the visit at 2 to 4 days was not taken into account because some infants may still have been in hospital or had a home visit instead of an office visit. (AAP Recommendations for Preventive Pediatric Health Care, RE9535, 2001).			
67	Immunizations			
50, 68, 69	Less than 100% of federal poverty level (FPL) Q50: source of family income included public assistance. Q68: monthly income for household before taxes during the 12 months before delivery. Q69: number of people depending on this income, including the mother, and federal poverty guidelines (FPL) 4/20/98. URL for FPL<http://aspe.os.dhhs.gov/poverty/98poverty.htm>			
6	Health insurance before pregnancy			
7	Medicaid before pregnancy			
15, 40	Medicaid coverage of prenatal care or delivery			

Appendix 4

Additional notes about variable definitions in this report:

Demographics

Birth certificates provided data on maternal age, ethnicity/race, educational level, residence, previous live birth, marital status.

Maternal residence

County of residence and zip codes recoded to *District One, urban*=Bernalillo, Torrance, Valencia, and zip codes for Bernalillo city and Rio Rancho; *District 2* = Colfax, Harding, Los Alamos, Mora, Rio Arriba, San Miguel, Santa Fe, Taos, Union ; *District 3* = Catron, Dona Ana, Grant, Hidalgo, Luna, Otero, Sierra, Socorro; *District 4* = Chaves, Curry, De Baca, Eddy, Guadalupe, Lea, Lincoln, Quay, Roosevelt ; *District One, rural* = McKinley, Sandoval (excluding zip codes for Bernalillo city and Rio Rancho), San Juan, Cibola.

Entry into prenatal care

Data in this report were based on Vital Records, not PRAMS survey responses.

Other variables

Outliers were excluded from maternal age, body mass index, infant's birth weight. If mother reported her height in feet and left "inches" blank, height in inches was calculated as feet x 12.

Some estimates may be slightly different from those reported by CDC PRAMS because the NM dataset was cleaned using write-in responses and comments.

† Indicates that estimates were not reported because of small sample size (<30).

Footnotes

[1] US. Department of Health and Human Services. Healthy People 2010 Conference Edition. Washington DC: January 2000. <http://www.health.gov/healthypeople/Document/default.htm>

[2] Health Resources and Services Administration. Maternal and Child Health Services Title V Block Grant Program: guidance and forms for the Title V application/annual report. Rockville, MD: Office of State and Community Health, Maternal and Child Health Bureau, Health Resources and Services Administration, 1997.

[3] NM Department of Health Strategic Plan, in progress.

Appendix 5

Methodology

Details are available on the CDC website, http://www.cdc.gov/nccdphp/drh and PRAMS 1997 Surveillance Report[1], from which this summary is adapted. New Mexico PRAMS modifications to standardized CDC procedures[2] are described in the NM PRAMS Protocol.

The PRAMS questionnaire

Starting with July, 1997 births, NM used the phase 3 questionnaire developed by CDC in 1994. For January 2000 births onward, the Phase 4 questionnaire has been used. Numerous individuals within and outside of CDC identified topics for the CDC core questions. For the state-specific NM questions, consultants, including the NM Steering committee, helped select topics. Questions were then pre-tested and revised.

The questionnaire consists of two parts, a core portion that is the same for all states and a state-specific portion that is tailored to each state's needs. Topics addressed in the PRAMS core questionnaire include barriers to and content of prenatal care, obstetric history, maternal use of alcohol and cigarettes, nutrition, economic status, maternal stress, and early infant development and health status. CDC provided Spanish translations, and both the English and Spanish questionnaires were adapted for telephone interviewers.

Collection of data

The primary data collection method is a mailed questionnaire with 2 follow-up mailings plus multiple telephone attempts. The mailings start 2–4 months after delivery and close of telephone follow-up is about 90 days later.

Each month, a sample is drawn from the current birth certificate file at NM Vital Records and Health Statistics. Surveys are mailed to mothers in each of these monthly samples, or "batches". Mothers are given the option of completing the survey by telephone. The mail packets include a cover letter, the questionnaire booklet, a self-addressed return envelope with postage, a question and answer sheet about PRAMS, list of community resources for families of newborns, incentives (sent to all sampled mothers), and an offer of a reward (sent to all respondents). For each batch, the reward is a $100 store certificate for two mothers who complete the survey. Data are sent to CDC for editing, weighting, and creation of an annual data file.

Response rates

For 1999 births, NM PRAMS drew a sample of 2,115 recently delivered mothers. The overall response rate was 71.8%. An outreach program was implemented to increase responses from Navajos. Local contractors engaged Navajo women to deliver surveys to non-respondents. Other attempts to increase response rates included asking staff from the Family Food and Nutrition Services (WIC) offices of the Navajo Nation and NM Department of Health to distribute information about PRAMS, radio spots in the northwest and border areas, and sending posters for PRAMS publicity to providers. A table in the appendix of this report shows detailed response rates.

Appendix 5

Analysis of data: PRAMS sampling & weighting process

A stratified systematic sample of approximately 150–250 new mothers is drawn every month from a frame of eligible birth certificates. The 1999 strata were based on birth weight and ethnicity, with over-sampling of mothers with low birth weight infants and Native American race/ethnicity. Estimated proportions within strata and domains are slightly less precise than statewide estimates.

CDC PRAMS calculates weights and provides an annual weighted data file. Weights are needed for generalizing survey results to the state's entire population of births. The sampling, non-response, and non-coverage weights are multiplied to yield an analysis weight for each respondent. The weight can be interpreted as the number of women like herself in the population that each respondent represents.

Linkage of sampled mothers and birth certificates, which provide data for demographics and medical risk factors, is the basis for calculating weights. An outline of procedures for weighting are below:

1. For each respondent, the initial sampling weight is the reciprocal of the sampling fraction applied to the stratum. Sampling weights in PRAMS ranged from 3/4 very low birth weight infants and 1/6 Native Americans to 1/19 normal/high birth weight infants of non-Native Americans during the first part of 1999; during the latter part, sampling fractions ranged from 2/7 low birth weight infants to 1/14 of any other birth weight (and over-sampling of Native Americans was discontinued).
2. Non-response adjustment factors attempt to compensate for lower response rates from women having certain demographic characteristics (such as being unmarried or of lower education) and are based on multivariate analysis. The assumption is that non-respondents would have provided similar answers, on average, to respondents' answers for that stratum and adjustment category. Categories with lower response rates have higher non-response weights.
3. The frame non-coverage weights are derived by comparing frame files for a year of births to the calendar year birth tape that states provided to CDC. The main reason for omission is late processing. This report was prepared with SUDAAN software, which takes into account the complex sampling design in calculating standard errors.

Cleaning & editing

This is done at several steps by NM Vital Records before the sample is drawn, CDC PRAMS after birth certificate and survey data are submitted, and by NM PRAMS, where coded responses may be revised based on write-in responses and comments. The last step may produce estimates that differ slightly from CDC's.

Potential sources of bias

Relying on mail or telephone for surveys may select mothers of higher socioeconomic status. Bias may result from non-response, especially when response rates fall below 70% for that stratum or domain. (A domain is a subgroup other than the sampling stratum). The appendix shows stratum- and domain-specific response rates. Other potential sources of bias include analysis by domains may introduce bias because mothers are not randomly (or systematically) sampled within each domain; omitting observations with missing values; and lack of control for important confounders.

Footnotes

[1] Colley Gilbert G, Johnson CH, Morrow B, Ahluwalia IB, Gaffield ME, Fischer L, Rogers M, Whitehead N. PRAMS 1997 Surveillance Report. Atlanta GA: Division of Reproductive Health, National Centers for Chronic Disease Prevention and Health Promotion, Centers of Disease Control and Prevention, 1999.

[2] Centers for Disease Control and Prevention. PRAMS model surveillance protocol, 1996. Unpublished.

Appendix 6

NM PRAMS Phase 3 Questionnaire - Used from 1997-1999

First, we would like to ask you a few questions about the time before your new baby was born.

1. Before your new baby, did you ever have any other babies who were born alive?
   - ☐ No-------> **Go to Question 4**
   - ☐ Yes

2. Did the baby just before your new one weigh 5 pounds, 8 ounces ***or less*** at birth?
   - ☐ No
   - ☐ Yes

3. Was the baby just before your new one born ***more*** than 3 weeks before its due date?
   - ☐ No
   - ☐ Yes

Next are some questions about the time just before and during your pregnancy with your new baby. It may help to look at the calendar when you answer these questions.

4. 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

5. Thinking back to ***just before*** you got pregnant, how did you feel about becoming pregnant? **Check the best 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
   - ☐ I don't know

6. ***Just before*** you got pregnant, did you have health insurance? **Don't count Medicaid.**
   - ☐ No
   - ☐ Yes

7. ***Just before*** you got pregnant, were you on Medicaid?
   - ☐ No
   - ☐ Yes

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8. When you got pregnant with your new baby, were you or your husband or partner using any kind of birth control?
Birth control means the pill, condoms, diaphragm, foam, rhythm, Norplant®, shots (Depo-Provera®) or ANY other way to keep from getting pregnant.

- ☐ No
- ☐ Yes------->**Go to Question 10**

9. Why were you or your husband or partner not using any birth control?
Check all that apply.

- ☐ I wanted to get pregnant
- ☐ I didn't think I could get pregnant
- ☐ I had been having side effects from the birth control I used
- ☐ I didn't want to use birth control
- ☐ I didn't think I was going to have sex
- ☐ My husband or partner didn't want to use birth control
- ☐ Other--->
  Please tell us:_____

The next questions are about the prenatal care you got 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 check-ups and advice about pregnancy. It may help to look at a calendar when you answer these questions.

10. How many weeks or months pregnant were you when you had your first visit for prenatal care?
Don't count a visit that was only for a pregnancy test or only for WIC (Women, Infants, and Children's Nutrition Program).

- ___ Weeks or ___ Months
- ☐ I did not go for prenatal care

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

- ☐ No
- ☐ Yes --->**Go to Question 13**
- ☐ I did not want prenatal care--->**Go to Question 13**

12. Did any of these things keep you from getting prenatal care as early as you wanted? **Check all that apply.**

- ☐ I couldn't get an appointment earlier in my pregnancy
- ☐ I didn't have enough money or insurance to pay for my visits
- ☐ I didn't know that I was pregnant
- ☐ I had no way to get to the clinic or doctor's office
- ☐ I couldn't find a doctor or nurse who would take me as a patient
- ☐ I had no one to take care of my children
- ☐ I had too many other things going on
- ☐ Other --> please tell us:

If you did not go for prenatal care, go to Question 17 on Page 4.

13. During each month of your pregnancy, about how many visits for prenatal care did you have? **If you don't know exactly how many, please give us your best guess. Don't count visits for WIC only. It may help to use the calendar.**

Month of Pregnancy	How many visits?
First month	_____
Second month	_____
Third month	_____
Fourth month	_____
Fifth month	_____
Sixth month	_____
Seventh month	_____
Eighth month	_____
Ninth month	_____

- ☐ I did not go for prenatal care--->**Go to Question 17**

14. Where did you go ***most of the time*** for your prenatal visits? **Don't include visits for WIC. Check one answer.**

- ☐ Hospital clinic
- ☐ Health department clinic
- ☐ Private doctor's office
- ☐ Indian Health Service (PHS)
- ☐ Community Clinic
- ☐ Other - please tell us:

15. How was your prenatal care paid for? **Check all that apply.**

- ☐ Medicaid
- ☐ Personal income (cash, check or credit card)
- ☐ Health insurance
- ☐ Indian Health Service (PHS)
- ☐ City or County Indigent Fund
- ☐ Other --> please tell us:

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16. 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? **For each thing, 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. What you should eat during your pregnancy	N	Y
b. How smoking during pregnancy could affect your baby	N	Y
c. Breastfeeding your baby	N	Y
d. How drinking alcohol during pregnancy could affect your baby	N	Y
e. Using a seat belt during your pregnancy	N	Y
f. Birth control methods to use after your pregnancy	N	Y
g. The kinds of medicines that were safe to take during pregnancy	N	Y
h. How using illegal drugs could affect your baby	N	Y
i. How your baby grows and develops during pregnancy	N	Y
j. What to do if your labor starts early	N	Y
k. How to keep from getting HIV (the virus that causes AIDS)	N	Y
l. Getting your blood tested for HIV (the virus that causes AIDS)	N	Y
m. Physical abuse to women by their husbands or partners	N	Y

17. During your pregnancy, were you on WIC?
- ☐ No
- ☐ Yes

18. ***Just before*** you got pregnant, how much did you weigh? **Use the measure you know best.**
- _____ Pounds
- ☐ I don't know

19. How tall are you without shoes?
- ____ Feet ____ Inches

20. Have you ever heard or read that taking the vitamin folic acid can help prevent some birth defects?
- ☐ No
- ☐ Yes

The next questions are about smoking cigarettes and drinking alcohol.

21. Have you smoked at least 100 cigarettes in your entire life?
- ☐ No --> **Go to Question 25**
- ☐ Yes

22. In the ***3 months before*** you got pregnant, how many cigarettes or packs of cigarettes did you smoke on an average day? A pack has 20 cigarettes.
- ___Cigarettes or___ Packs
- ☐ Less than 1 cigarette a day
- ☐ I didn't smoke
- ☐ I don't know

23. In the ***last 3 months*** of your pregnancy, how may cigarettes or packs of cigarettes did you smoke on an average day?

___Cigarettes or___ Packs

- ☐ Less than 1 cigarette a day
- ☐ I didn't smoke
- ☐ I don't know

24. How many cigarettes or packs of cigarettes do you smoke on an average day ***now***?

___Cigarettes or___ Packs

- ☐ Less than 1 cigarette a day
- ☐ I don't smoke
- ☐ I don't know

25. a. During the ***3 months before*** you got pregnant, how many alcoholic drinks did you have in an average week? (A drink is: One glass of wine. One wine cooler. One can or bottle of beer. One shot of liquor. One mixed drink.)

- ☐ I didn't drink then.
- ☐ less than 1 drink a week
- ☐ 1 to 3 drinks a week
- ☐ 4 to 6 drinks a week
- ☐ 7 to 13 drinks a week
- ☐ 14 drinks or more a week
- ☐ I don't know

b. During the ***3 months before*** you got pregnant, how many times did you drink 5 or more alcoholic drinks at one sitting?

___ Times

- ☐ I didn't drink then.
- ☐ I don't know

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

- ☐ I didn't drink then.
- ☐ less than 1 drink a week
- ☐ 1 to 3 drinks a week
- ☐ 4 to 6 drinks a week
- ☐ 7 to 13 drinks a week
- ☐ 14 drinks or more a week
- ☐ I don't know

b. During the ***last 3 months*** of your pregnancy, how many times did you drink 5 or more alcoholic drinks at one sitting?

___ Times

- ☐ I didn't drink then
- ☐ I don't know

The next questions are about times you may have had to stay in the hospital while you were pregnant. Please DO NOT COUNT the time you went to the hospital to have your baby.

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27. ***Not counting*** the time you went to the hospital to have your baby, how many ***other*** times during your pregnancy did you go into a hospital and stay ***at least one night***?

- ☐ None---->**Go to Question 30**
- ☐ 1 time
- ☐ 2 times
- ☐ 3 times
- ☐ 4 times or more

28. What problems caused you to stay in the hospital?
Check all that apply.

- ☐ Labor pains more than 3 weeks before my due date (premature labor)
- ☐ High blood pressure (preeclampsia or toxemia)
- ☐ Vaginal bleeding or placenta problems
- ☐ Nausea, vomiting or dehydration
- ☐ Kidney or bladder infection
- ☐ High blood sugar (diabetes)
- ☐ Other
- ☐ please tell us:

29. How many months pregnant were you the ***first*** time you had to go into a hospital and stay at least one night?

____ Months

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

30. This question is about things that may have happened during the ***12 months before you delivered*** your new baby. This includes the months before you got pregnant. **For each thing, circle Y (Yes) if it happened to you or N (No) if it didn't. It may help to use the calendar.**

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

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The next questions are about physical abuse. Physical abuse means pushing, hitting, slapping, kicking, and any other way of physically hurting someone.

31. During the ***12 months before you got pregnant*** with your new baby, did any of these people physically abuse you? **Check all that apply**

- ☐ My husband or partner
- ☐ A family or household member ***other than*** my husband or partner
- ☐ A friend
- ☐ Someone else --> Please tell us: (**No Names)**_____
- ☐ No one physically abused me during the 12 months before I got pregnant

32. ***During your most recent pregnancy***, did any of these people physically abuse you? **Check all that apply.**

- ☐ My husband or partner
- ☐ A family or household member ***other than*** my Husband or partner
- ☐ A friend
- ☐ Someone else -----> Please tell us:_____
- ☐ No one physically abused me during my pregnancy --->**Go to Question 34**

33. ***During your most recent pregnancy***, would you say that you were physically abused ***more*** often, ***less*** often, or ***about the same*** compared to the ***12 months before*** you got pregnant? **Check only one.**

- ☐ I was physically abused ***more often*** during my pregnancy
- ☐ I was physically abused ***less often*** during my pregnancy
- ☐ I was physically abused ***about the same*** during my pregnancy
- ☐ No one physically abused me during the ***12 months before*** I got pregnant

The next questions are about your labor and delivery.

34. When was your baby due?

_____/_____/_____
month day year

35. When was your baby born?

_____/_____/_____
month day year

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

_____/_____/_____
month day year

☐ I did not have my baby in a hospital

37. When you had your baby, how many nights did you stay in the hospital?

___ Nights
☐ I did not stay overnight in the hospital
☐ I did not have my baby in a hospital

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38. When your baby was born, how many nights did he or she stay in the hospital?

___ Nights
□ My baby did not stay overnight in
□ My baby was not born in a hospital

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

□ No
□ Yes
□ I don't know

40. How was your delivery paid for? **Check all that apply.**

□ Medicaid
□ Personal income (cash, check or credit card)
□ Health insurance
□ Indian Health Service (PHS)
□ City or County Indigent Fund
□ Other --> please tell us:

41. Is your baby alive now?

□ No--->When did your baby die?

___ / ___ /___
month day year

□ Yes--->Is your baby living with you now?

□ No
□ Yes

If your baby is not alive or is not living with you now, go to Question 48 on Page 10.

42. For how many weeks did you breast-feed your new baby?

___ Weeks
□ I didn't breastfeed my baby ---->**Go to Question 44**
□ I breastfed less than 1 week ---->**Go to Question 44**
□ I'm still breastfeeding

43. How many weeks old was your baby the first time you fed him or her anything besides breast milk? **Include formula, baby food, juice, cow's milk or anything else** .

___ Weeks
□ My baby was less than 1 week old
□ I haven't fed my baby anything besides breast-milk

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44. About how many hours a day, on average, is your new baby in the same room with someone who is smoking?

_____ Hours
☐ My baby is never in the same room with someone who is smoking

45. How do you put your new baby down to sleep ***most*** of the time?
Check one answer.

☐ On his or her side
☐ On his or her back
☐ On his or her stomach

46. How many times has your baby been to a doctor or nurse for ***routine*** well baby care?
Don't count the times you took your baby for care when he or she was sick. It may help to use the calendar.

____ Times

☐ My baby hasn't been for routine well baby care----->**Go to Question 48**

47. When your baby goes for ***routine*** well baby care, where do you take him or her?
Check all the places that you use.

☐ Hospital clinic
☐ Health department clinic
☐ Private doctor's office
☐ Indian Health Service (PHS)
☐ Community Clinic
☐ Other - please tell us:_____

The next questions are about your family and the place where you live.

48. Which rooms are in the house, apartment, or trailer where you live?
Check all that you have.

☐ Bedrooms – How many? _____
☐ Living room
☐ Separate dining room
☐ Kitchen
☐ Bathroom(s)
☐ Recreation room, den or family room
☐ Finished basement

49. How many people live in your house, apartment, or trailer?

Count yourself.	**How many?**
Babies, children, or teens aged 17 or younger	_____
Adults aged 18 or older	_____

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50. What were the sources of your family income during the past 12 months? **Check all that apply.**

- ☐ Money from a job or business
- ☐ Aid such as AFDC, welfare, assistance, Food Stamps or SSI
- ☐ Unemployment benefits
- ☐ Child support or alimony
- ☐ Fees, rental income
- ☐ Social security, workers' compensation, veteran benefits, or pensions
- ☐ Other - please tell us: _____

51. What is today's date? _____/____/_____
month day year

52. What is *your* date of birth? _____/_____/_____
month day year

Here are some more questions about your experience.

53. How much weight did you *gain* during your pregnancy? **Give your best guess, even if you are not very sure. Use the measure you know best.**

_____Pounds or _____Kilograms
- ☐ I lost weight
- ☐ I don't know

54. The next question is about how you felt during the first 3 months of your most recent pregnancy. **For each thing, circle Y (yes) if you felt this way or N (no) if you did not.**

Did you ever feel –	NO	YES
a. My life was determined by my own actions	N	Y
b. I could do just about anything I set my mind to do	N	Y
c. Sometimes I was being pushed around in life	N	Y
d. Often helpless in dealing with problems of life	N	Y
e. Little control over the things that happened to me	N	Y

55. During your pregnancy, did a doctor, nurse, or other health care worker treat you for any of these problems? **Check all that apply.**

- ☐ Diabetes I had *before* this pregnancy
- ☐ Diabetes I had *during* this pregnancy
- ☐ High blood pressure
- ☐ An infection in the vagina (birth canal)
- ☐ A bladder or kidney infection
- ☐ Other - Please tell us:

_____

- ☐ I had no problem needing treatment

56. This question is about the care of your teeth during your most recent pregnancy. **Check all that apply.**

- ☐ I needed to see a dentist for a problem
- ☐ I went to see a dentist or dental clinic
- ☐ A dentist or other health care worker talked with me about how to care for my teeth and gums
- ☐ I did not go for dental care

57. What language(s) do you speak at home on a daily basis?
Check all that apply

- ☐ English
- ☐ Spanish
- ☐ A Pueblo language
- ☐ Navajo
- ☐ Other -

Please tell us:_____

58. New Mexico has many cultures. Please tell us about your experience with cultural beliefs and activities.
For each thing, circle Y (yes) if it is true or N (no) if it is not.

	No	Yes
a. I have regular contact with people outside my family who share my cultural background	N	Y
b. I believe it is important formy children to know about and take part in activities traditional to my culture	N	Y
c. I eat foods that are traditional to my culture at least every week	N	Y

59. Which of the following things were you doing in the past month?
Check all that apply.

- ☐ Being a homemaker
- ☐ Working full time or part time
- ☐ Going to school full time or part time
- ☐ Unemployed, looking for a job
- ☐ Unemployed, not looking for a job
- ☐ Seasonal farm or construction work
- ☐ Other - Please tell us:_____

60. Are you or your husband or partner using any kind of birth control *now*?
Birth control means having your tubes tied, vasectomy, the pill, condoms, diaphragm, foam, rhythm Norplant, shots (Depo-Provera) or ANY other way to keep from getting pregnant.

- ☐ No---->**Go to Question 62**
- ☐ Yes

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61. What kind of birth control are you or your husband or partner using now?
Check all that apply and go to Question 63.

- ☐ Tubes tied (sterilization)
- ☐ Vasectomy (sterilization)
- ☐ Pill
- ☐ Condoms
- ☐ Foam, jelly, cream
- ☐ Norplant
- ☐ Shots (Depo-Provera)
- ☐ Withdrawal
- ☐ Other - Please tell us:_____

62. What are your reasons for not using any birth control 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 birth control
- ☐ I don't think I can get pregnant
- ☐ I can't pay for birth control
- ☐ I am pregnant now
- ☐ Other -- Please tell us:_____

63. *During* your pregnancy or *since* your delivery, did you participate in any of these services?
Check all that apply.

	During Pregnancy	Since Delivery
a. Breast feeding class or support group	☐	☐
b. Parenting class or support group	☐	☐
c. WIC class or discussion group about nutrition	☐	☐
d. Counseling about a personal or family problem	☐	☐
e. Home visiting services	☐	☐
f. Program for pregnant or parenting teenagers	☐	☐
g. Rides from a program to get to a clinic or other services	☐	☐
h. Program for protection from family violence	☐	☐
i. Program to stop using drugs or alcohol	☐	☐
j. A class or support group to stop smoking	☐	☐

64. Since your delivery, did you see a doctor, nurse, or midwife for yourself for any of these reasons?
Check all that apply.

- ☐ I received a routing check-up (6 weeks postpartum, after delivery)
- ☐ I received care for a health problem
- ☐ I received a birth control method
- ☐ I did not see anyone

65. If you received home visiting service during your pregnancy or since your delivery, who came to see you? **Check all that apply.**

- ☐ Community health worker or promotora
- ☐ A nurse
- ☐ A volunteer from a community program
- ☐ A social worker
- ☐ Tribal community health representative
- ☐ A breast-feeding helper
- ☐ Other - Please tell us:

  _____
- ☐ I did not receive home visiting services

If your baby is not alive or is not living with you now, go to Question 68.

66. Who is helping you raise your new baby? Include those on whom you often rely for child care, money, or help with problems. **Check all that apply.**

- ☐ My husband or partner
- ☐ My mother, father, or in-laws
- ☐ Other family member or relative
- ☐ A friend
- ☐ Someone else
- ☐ Please tell us

  _____
- ☐ No one (I am raising my baby on my own)

67. Has your new baby gone to a clinic for his or her first baby shots (immunizations)?

- ☐ No
- ☐ Yes

68. During the 12 months before you delivered, what was your *monthly income for your household* before taxes? **Check the box that was closest to this income.**

- ☐ Less than $390 per month
- ☐ $390-$700 per month
- ☐ $701-$1,000 per month
- ☐ $1,001-$1,360 per month
- ☐ $1,361-$1,600 per month
- ☐ $1,601-$1,950 per month
- ☐ $1,951 or more per month

69. How many people, including yourself, depended on this income?

_____ People

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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.