



New Mexico Pregnancy Risk Assessment Monitoring System – MCH Epidemiology

New Mexico Department of Health

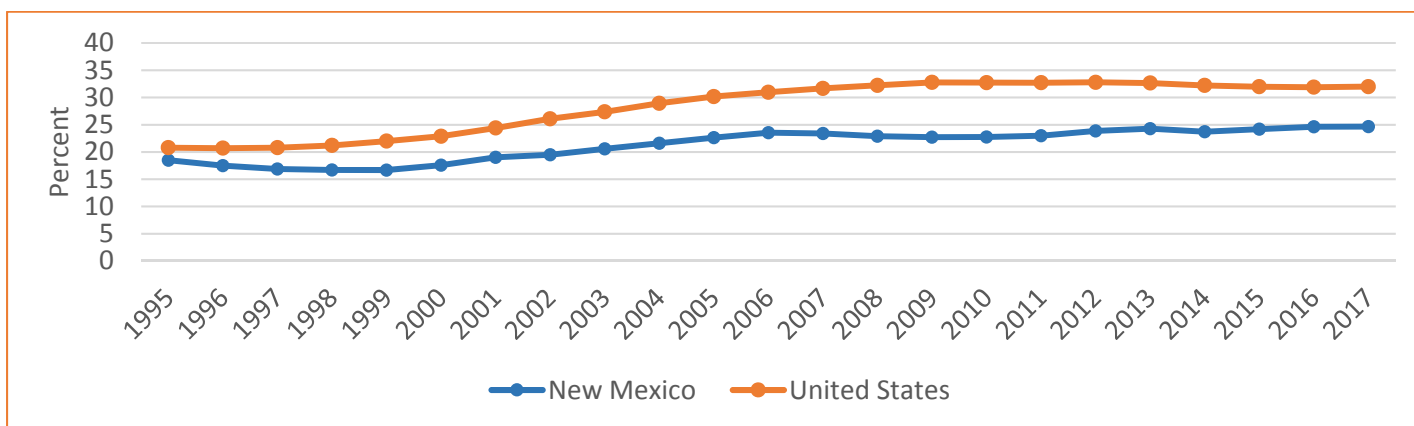
Cesarean Delivery - New Mexico PRAMS

by MCH Epidemiology, Family Health Bureau, PHD-NM Department of Health

A cesarean section (c-section) can be a life-saving procedure for both mother and infant in situations involving complications during pregnancy or labor that require early or immediate delivery. Placenta previa, umbilical cord prolapse, eclampsia, abnormal fetal position, and cephalopelvic disproportion are some of the medical indications for a c-section. There are concerns that too many of the c-sections being performed are not medically necessary¹, exposing both mother and infant to increased risks including: longer hospital stays, infections or blood clots in the mother, babies born with respiratory problems, and increased risk of complications in future pregnancies.

The rate of cesarean delivery in NM was lower than the United States rate during 1995-2017 (Figure 1.). The U.S. c-section rate increased 58% from 1995 to 2009 and has declined 2.4% since 2012, while the NM rate increased 48% from 1998 to 2017.

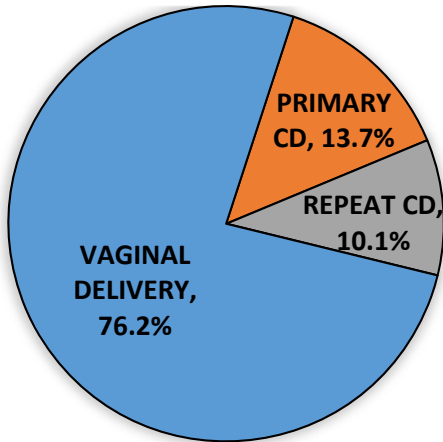
Figure 1. Prevalence of Cesarean Delivery, New Mexico and United States, 1995-2017



Sources: New Mexico Bureau of Vital Records and Health Statistics (NMBVRHS), National Center for Health Statistics: CDC Wonder Natality and National Vital Statistics Reports, vol 61, no 1.

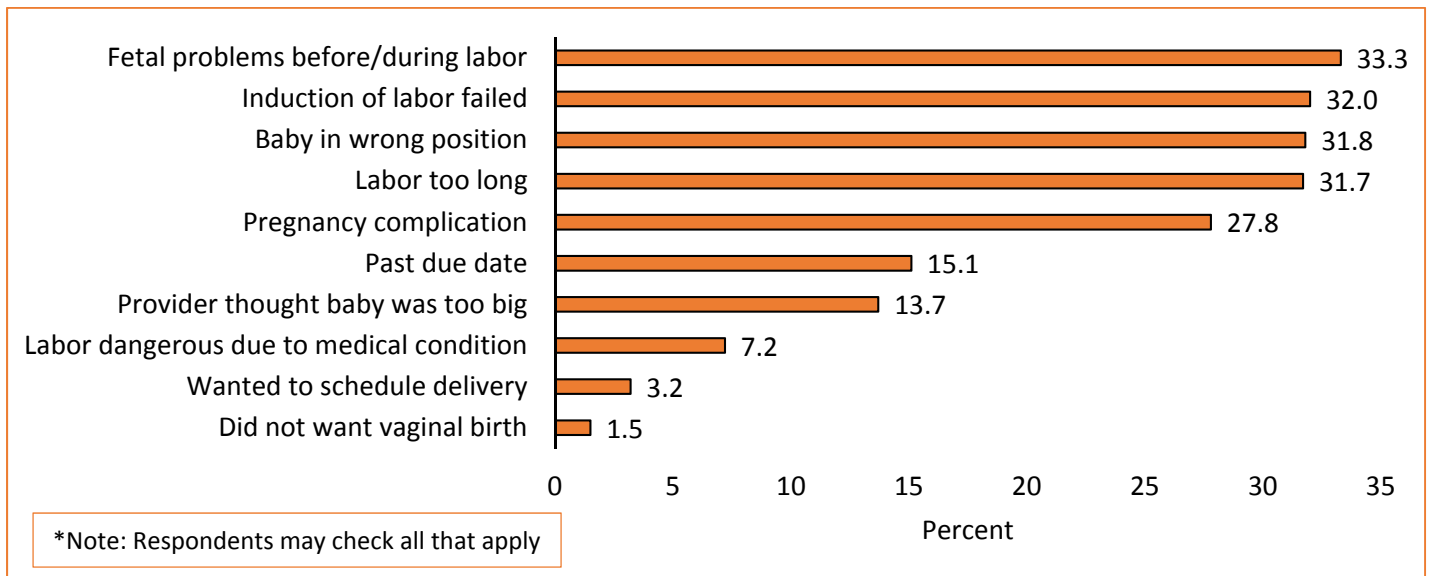
New Mexico Pregnancy Risk Assessment Monitoring System (NM PRAMS) is an ongoing public health surveillance system of maternal behavior and experiences before, during and shortly after pregnancy. NM PRAMS provides information that is representative of NM resident women who have given live birth in NM. The surveillance system is sponsored by the Centers for Disease Control and Prevention and the NM Department of Health. PRAMS is New Mexico’s best source of representative birth population data. A limitation of the PRAMS survey is that all responses are self-reported and are subject to recall bias and social desirability bias.

Figure 2. Method of Delivery, NM PRAMS 2012-2015



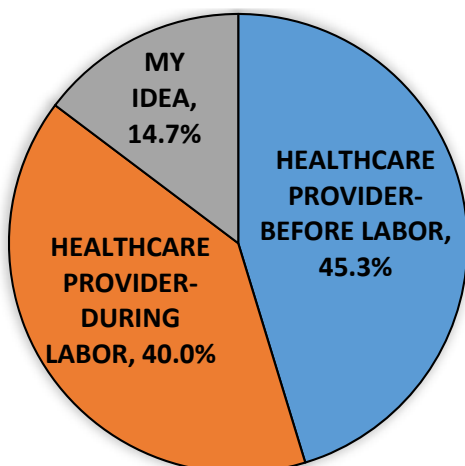
According to the NM PRAMS survey, 23.8% of postpartum mothers reported that they delivered by c-section and 76.2% delivered vaginally during 2012-2015. Primary cesarean deliveries accounted for 58% of the total number of c-sections and repeat c-sections (any c-section after a primary) accounted for 42%.

Figure 3. Reasons* Why Baby was Born by a Primary C-section, NM PRAMS 2012-2015



Leading reasons for having a primary c-section were fetal problems before or during labor, induction of labor failed, baby was in the wrong position, labor was taking too long and pregnancy complication (Figure 3).

Figure 4. Decision to Perform a Cesarean Delivery, NM PRAMS 2016



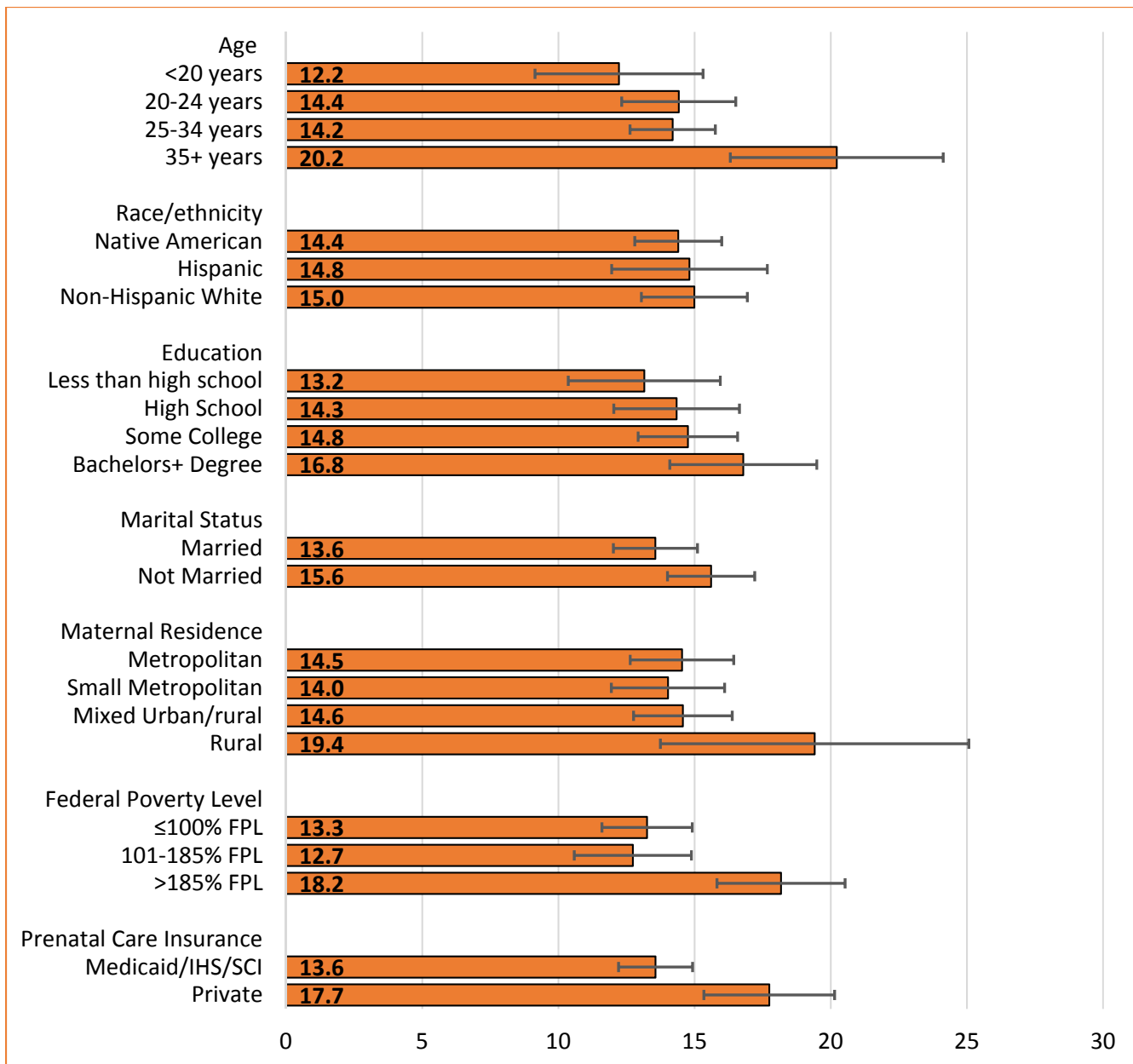
Among mothers who delivered by cesarean section, 85% reported that the decision for a c-section was made by their healthcare provider and 15% reported that they asked for the cesarean section.

Cesarean deliveries occur more frequently in multiple pregnancies than in singleton pregnancies.

- 22.9% of singleton births during 2012-2015 were delivered by c-section. (Source: NMBVRHS)
- 69.9% of twin or multiple births during 2012-2015 were delivered by c-section. (Source: NMBVRHS)

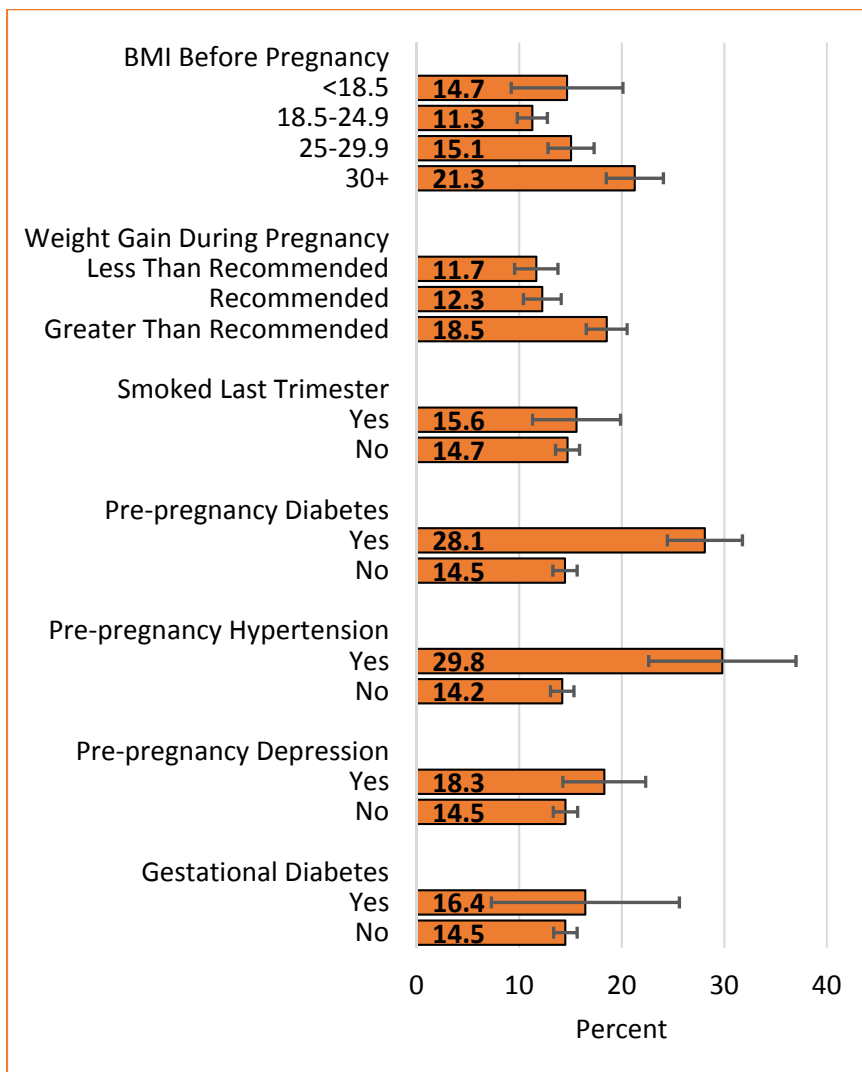
Since most multiple births were delivered by c-section, the analysis of the PRAMS survey by demographic factors and medical risk factors excluded multiple births.

Figure 5. Prevalence of Primary Cesarean Delivery by Maternal Demographics, NM PRAMS, 2012-2015



Mothers aged >35 years were more likely to deliver by c-section compared to mothers aged <20 years and mothers aged 25-34 years. Mothers living above 185% of FPL were more likely to deliver by c-section than mothers living at or below 185% of FPL. Mothers whose prenatal care was paid by private insurance were more likely to deliver by c-section than mothers whose prenatal care was paid by Medicaid or other government insurance. Mothers living in rural areas had a higher percentage of cesarean delivery than mothers living in other geographical areas.

Figure 6. Prevalence of Primary Cesarean Delivery by Maternal Risk Factors, NM PRAMS 2012-2015



Mothers with a **Body Mass Index** of 30+ were more likely to have a c-section than mothers who were of normal weight or overweight. Women who **gained more than the recommended amount of weight** were more likely to have a c-section than mothers who gained the recommended amount of weight.

Mothers who **smoked during the last trimester** of pregnancy had a higher percentage of cesarean delivery than mothers who did not smoke during the last trimester of pregnancy.

Mothers who had **pre-pregnancy hypertension** or who had **pre-pregnancy diabetes** were more likely to have a c-section than mothers without these health conditions.

Mothers who had **gestational diabetes** had a higher percentage of cesarean delivery than mothers who did not have gestational diabetes.

Recommendations:

A report by the American College of Obstetricians and Gynecologists (ACOG) recommends that physicians use caution when deciding to perform a cesarean delivery upon maternal request.² The report looked at the short- and long-term risks associated with maternal requested c-section and found an association with longer maternal hospital stays, higher infection rates, higher anesthetic complications and lower initial breastfeeding rates when compared to planned vaginal delivery.

Modifying hospital clinical protocols for obstetricians to better define when cesarean delivery is necessary, such as incorporating the recommendations outlined in the ACOG consensus report for preventing the first cesarean delivery¹, may help to reduce the primary cesarean delivery rate.

References:

1. Safe prevention of the primary cesarean delivery. Obstetric Care Consensus No. 1. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2014;123:693–711.
2. Committee Opinion No. 559: Cesarean delivery on maternal request. American 5. College of Obstetricians and Gynecologist. *Obstet Gynecol* 121; 904-7 (2013).