Maternal Smoking
Wyoming, 2012-2015

Fast Facts
Between 2012 and 2015, 14.2% of Wyoming women reported that they smoked during pregnancy.

Cigarette smoke contains over 7,000 chemicals. Hundreds of these are toxic and over 70 can cause cancer.1

Maternal Smoking in Wyoming
Between 2012 and 2015, 27.1% of Wyoming mothers smoked in the three months prior to their pregnancy compared with 21.1% in other PRAMS states (2013).

Among women who said that they smoked in the three months before their pregnancy, nearly half quit (47.6%), about one third reduced their smoking (36.1%), and 16.2% did not change levels of smoking during pregnancy (Figure 1).

Between 2012 and 2015, 14.2% of Wyoming women smoked in the last three months of their pregnancy compared with 9.9% of women in other PRAMS states (2013).

Wyoming women who smoked in the last three months of pregnancy (Figure 2) were more likely to be:

- American Indian as compared to White or Hispanic/Latino
- Unmarried versus married
- With a high school degree or less as compared to more than a high school education
- Enrolled in WIC and/or Medicaid during their pregnancy as compared to non-enrollees

Maternal health
Increased risk of:
- Altered maternal hormones
- Elevated heart rate and blood pressure
- Impaired fertilization

Infant health
Increased risk of:
- Preterm delivery
- Low birthweight
- Cleft lip/palate
- Spontaneous abortion/fetal loss
- Sudden Infant Death Syndrome (SIDS)
- Long term impacts on language and cognitive development

Maternal Smoking
Cigarettes are highly addictive and contain over 7,000 chemical compounds known to have toxic effects on health. Smoking during pregnancy can result in negative health effects for both the mother and the infant.

Figure 1. Change in Smoking Status During Pregnancy. WY PRAMS 2012-2015

Figure 2. Demographic Characteristics of Women Who Smoked During the Last 3 Months of Pregnancy. WY PRAMS 2012-2015
Women who smoke during pregnancy put themselves and their infants at higher risk for a variety of negative short and long term outcomes. An analysis of Wyoming PRAMS data suggests that there is an association between smoking during pregnancy and risk of delivering a low birthweight (LBW) infant. Figure 3 shows that among women who did not smoke, 6.6% delivered a LBW infant. Women who reported smoking before pregnancy, but who quit had a slightly higher risk of delivering a LBW infant (8.4%). Women who said that they reduced their level of smoking continued to have more than twice the risk of delivering a LBW infant when compared to women who did not smoke.

Finally, those who said that there was no change in their smoking also had a higher risk of LBW, although this risk was not significantly different than those who reduced smoking.

Disorders related to short gestation and LBW were the second leading cause of infant mortality in the United States in 2014 and can cause respiratory distress, and problems of the heart, brain, and intestines in newborns. Additionally, long term outcomes such as high blood pressure, diabetes, heart disease, and delayed cognitive development are more likely among babies born LBW.

Many other infant outcomes associated with maternal smoking result in complications at birth. Like LBW, they may also have negative long-term effects on the child's health.

What is PRAMS?

The Wyoming Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance project of the Wyoming Department of Health and the Centers for Disease Control and Prevention (CDC). Wyoming PRAMS collects Wyoming-specific, population-based data on maternal attitudes and experiences before, during and shortly after pregnancy. The goal of the PRAMS project is to improve the health of mothers and infants by reducing adverse outcomes such as low birth weight, infant mortality and morbidity, and maternal morbidity.


References: