



# Maternal Smoking Fact Sheet Wyoming, 2007-2011

Wyoming Department of Health

2013

## Maternal Smoking

### Fast Facts:

Between 2007 and 2011, 16.1% of Wyoming women smoked during pregnancy.

Cigarette smoke contains over 7,000 chemicals. Hundreds are toxic and over 70 can cause cancer.<sup>1</sup>

Smoking during pregnancy leads to increased risk of: SIDS, preterm delivery, reduced lung function, low birth weight, and other adverse birth outcomes.<sup>2</sup>

Cigarettes are highly addictive and contain over 7,000 chemical compounds known to have toxic effects on health<sup>1</sup>. Smoking during pregnancy can result in negative health effects for both the mother and the infant.

### Maternal health<sup>2</sup> Increased risk of:

- Altered maternal hormones
- Elevated heart rate and blood pressure
- Impaired fertilization

### Infant health<sup>2</sup> Increased risk of:

- Preterm delivery
- Low birthweight
- Cleft lip/palate
- Spontaneous abortion/fetal loss
- Sudden Infant Death Syndrome (SIDS)<sup>3</sup>
- Long term impacts on language and cognitive development

### Maternal Smoking in Wyoming

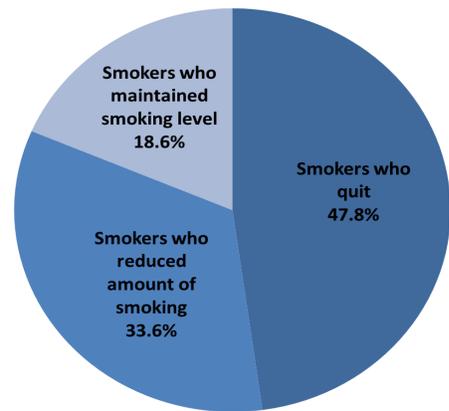
Between 2007 and 2011, 30.6% of Wyoming mothers smoked in the three months prior to their pregnancy compared with 23.0% nationally in 2008. Among women that smoked before pregnancy, just

under half quit (47.8%), a third reduced their smoking (33.6%), and 18.6% maintained their smoking level during their pregnancy (Figure 1).

Between 2007 and 2011, 16.1% of Wyoming women smoked in the last three months of their pregnancy compared with 12.8% of women nationally. A higher proportion of the Wyoming women that smoked in the last three months of pregnancy were:

- Teens vs. 20 or older
- Unmarried vs. married

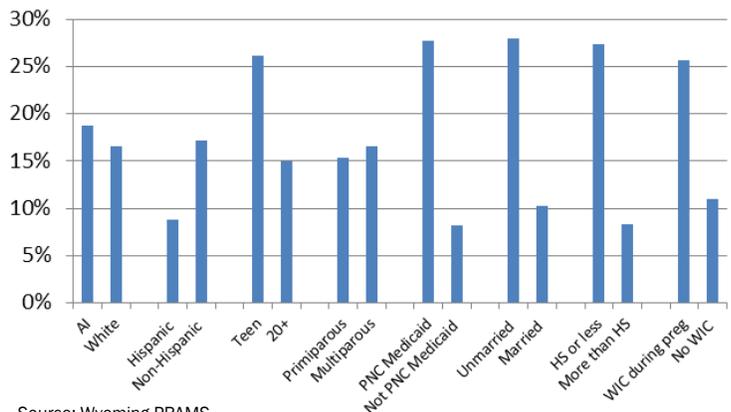
Figure 1: Change in Smoking Status During Pregnancy, Wyoming 2007-2011



Source: Wyoming PRAMS

- High school education or less vs. greater than
- Had prenatal care provided by Medicaid vs. other sources
- WIC enrolled during their pregnancy vs. not WIC enrolled (Figure 2)

Figure 2: Smoking During Last 3 Months of Pregnancy by Demographics 2007-2011



Source: Wyoming PRAMS

# Effects of Maternal Smoking

Women who smoke during pregnancy put themselves and their infants at higher risk for a variety of negative short and long term outcomes<sup>2</sup>.

An analysis of Wyoming PRAMS data suggests that there is association between smoking during pregnancy and risk of delivering a low birthweight

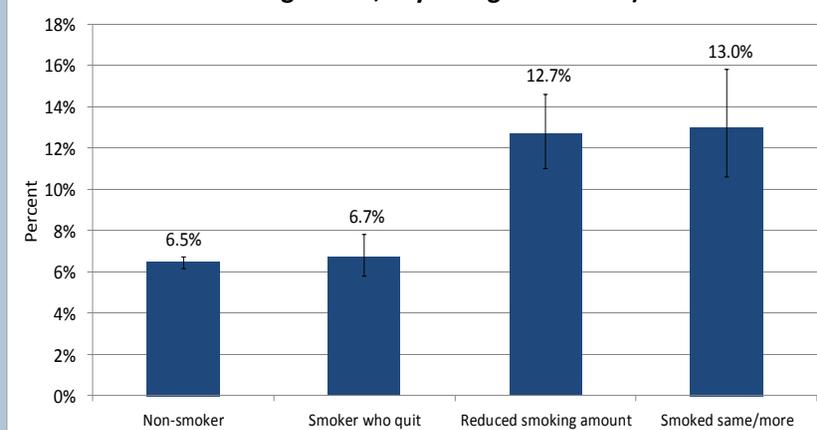
infant, (LBW is defined as <2500 gram) regardless of the amount a woman smokes (Figure 3). Among women who did not smoke, 6.5% delivered a LBW infant. Women that reported smoking, but quit had a statistically similar percentage of delivering a LBW infant (6.7%). Women that reported smoking during pregnancy,

delivered nearly twice as many LBW infants. Women that reported reducing smoking during pregnancy did *not* deliver a significantly different percent of LBW infants than those that did not quit smoking.

LBW was the second leading cause of infant mortality in the United States in 2011<sup>4</sup> and can cause respiratory distress, and problems of the heart, brain, and intestines in newborns<sup>5</sup>. Additionally, long term outcomes such as high blood pressure, diabetes, heart disease<sup>5</sup>, and delayed cognitive development<sup>2</sup> are more likely among babies born LBW.

Many infant outcomes associated with maternal smoking result in complications at birth and like LBW also carry long term ramifications for the child's health.

**Figure 3: Prevalence of Low Birthweight (<2500g) by Smoking Status, Wyoming 2007-2011**



## 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. To learn more about Wyoming PRAMS, visit our website: <http://www.health.wyo.gov/familyhealth/mchepi/prams.html>

### References:

1. Centers for Disease Control and Prevention. Chemicals in Tobacco Smoke. Accessed October 23, 2012. [http://www.cdc.gov/tobacco/data\\_statistics/sgr/2010/consumer\\_booklet/chemicals\\_smoke/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/2010/consumer_booklet/chemicals_smoke/index.htm)
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3. McDonnell-Naughton M, McGarvey C, O'Regan M, Matthews T. Maternal smoking and alcohol consumption during pregnancy as risk factors for sudden infant death. *Ir Med Jr.* 2012; 105(4):105-8.
4. Hoyert DL, Xu J. Deaths: Preliminary Data for 2011. *National Vital Statistics Reports* 2012; 61(6).
5. Fact sheet: Low birthweight. March of Dimes. Accessed October 23, 2012. [http://www.marchofdimes.com/professionals/medicalresources\\_lowbirthweight.html](http://www.marchofdimes.com/professionals/medicalresources_lowbirthweight.html)



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