



## Smoking Before, During, and After Pregnancy

Tobacco use during pregnancy remains one of the single most important preventable causes of poor birth outcomes. The link between tobacco use and adverse outcomes such as miscarriage, premature rupture of membranes (PROM), low birth weight, preterm birth, stillbirth, and infant death has been well documented.<sup>1</sup>

Secondhand smoke after delivery can exacerbate respiratory illnesses for the child, asthma, ear infections, and may lead to further complications later in life.<sup>1</sup>

According to 2009 Oklahoma Pregnancy Risk Assessment Monitoring System (PRAMS) data, 34.8% (95% Confidence Interval (CI)= 31.3-38.4) of new mothers smoked in the three months prior to pregnancy. During the last three months of pregnancy, 18.5% (95%

CI= 15.7-21.6) of Oklahoma mothers smoked, and 26.1% (95% CI= 23.0-29.5) smoked 2-6 months postpartum.

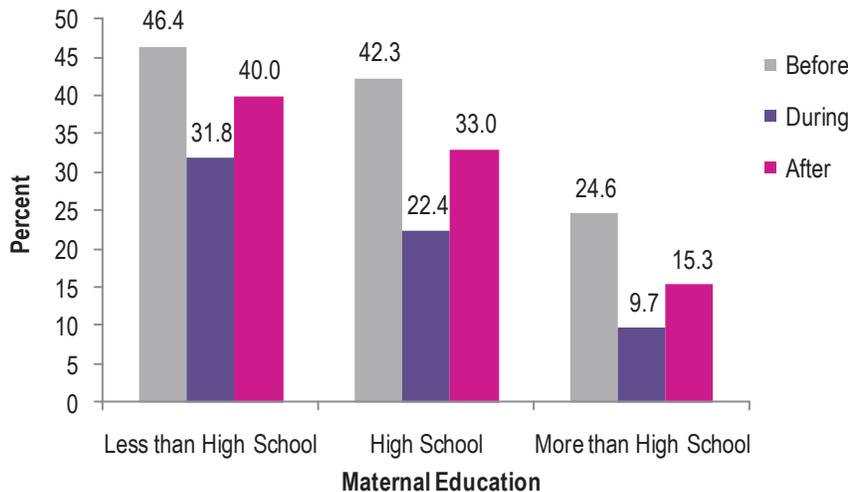
Figure 1 highlights the prevalence rates of smoking by maternal education. The highest rates of smoking are found before pregnancy among all education groups. Almost half of females with less than a high school education smoked in the three months prior to pregnancy. The lowest rates were found among those mothers with the highest education levels for all three time periods.

African American mothers were less likely to smoke during any time period compared to white or American Indian mothers, however the difference was not statistically significant.

### OKLAHOMA FACTS

- › 34.8% of Oklahoma women smoked during the three months before they became pregnant.
- › Almost one in five (18.5%) mothers smoked while they were pregnant.
- › Less than 10% of mothers with higher education levels smoked during their pregnancy.
- › 27.4% of American Indian mothers smoked during their last three months of pregnancy.
- › Mothers with lower household incomes had higher rates of smoking during all three time periods.
- › One in four women with Medicaid-funded prenatal care or delivery services smoked during pregnancy.
- › 3.4% of Hispanic mothers smoked during their last three months of pregnancy.
- › 51.1% of smokers resumed smoking 2-6 months after the infant was born.

**Figure 1: Prevalence of Maternal Smoking Before, During, and After Pregnancy by Maternal Education Status, Oklahoma PRAMS 2009**



Household income was a significant variable; mothers residing in the lowest income households were more likely to smoke than those living in more affluent households (See Figure 2).

Pregnancy induces many women to quit or reduce smoking; 16.3% of women stopped smoking during pregnancy and 12.0% reduced the number of cigarettes they smoked. Mothers *least likely* to smoke during pregnancy were:

- › Hispanic women (3.4% vs. 20.8% among non-Hispanics)
- › Women who did not have Medicaid funded coverage for prenatal care and delivery services (7.9% vs. 25.1%)
- › Women with more than a high school education
- › Women with \$50,000 or more annual income compared to those with less than \$10,000 (7.3% vs. 33.4%)

More than half (51.1%) of smokers resumed smoking within 2-6 months postpartum. Among those *least likely* to smoke at 2-6 months postpartum were:

- › Hispanic women (9.4% vs. 28.7% among non-Hispanics)
- › Women who did not have Medicaid funded coverage for prenatal care and delivery services (13.7% vs. 33.8%)
- › Women with more than a high school education (15.3%)
- › Women with \$50,000 or more annual income compared to those with less than \$10,000 (10.8% vs. 45.8%)

**Reference:**

1. PRAMS Workgroup. Maternal Smoking PRAMSGRAM, OSDH, 2006. Available at: [http://www.ok.gov/health/documents/PRAMS\\_Maternal%20Smoking\\_06.pdf](http://www.ok.gov/health/documents/PRAMS_Maternal%20Smoking_06.pdf)

*“Stay healthy- don't drink or smoke or do drugs. I'm happy that I was able to quit smoking.”*  
- PRAMS Mom



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PRAMS is a population-based surveillance system about maternal behaviors and experiences before, during and after pregnancy. Approximately 250 mothers are selected to participate in Oklahoma each month. Mothers are sent as many as three mail questionnaires seeking their participation, with follow-up phone interviews for non-respondents. Information included in the birth registry is used to develop analysis weights that adjust for probability of selection and non-response. The response rate for 2009 was 70% (n=3,008).

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**Figure 2: Prevalence of Maternal Smoking Before, During, and After Pregnancy by Household Income, Oklahoma PRAMS 2009**

