

Secondhand Smoke Exposure and Children

Exposure to secondhand smoke can be harmful to children's health, including an increased risk of severe respiratory diseases and can also hinder the growth of their lungs. Secondhand smoke is a known cause of asthma, bronchitis, low birth weight, pneumonia, respiratory complications, and Sudden Infant Death Syndrome (SIDS).¹

In 2009, of the **12** infant deaths attributed to respiratory illness in Kentucky, **4** were to mothers who reported smoking during pregnancy.¹ At home is the primary setting where children are exposed, and in 2009, approximately **70%** of Kentucky residents reported a smoking policy was enforced at home.² Children who live in homes where smoking is allowed have higher levels of cotinine, a biological marker for secondhand smoke exposure, than children who live in homes where smoking is not allowed. Almost one in four children aged 3 to 11 years lives in a household with at least one smoker. Children are also exposed to secondhand smoke in vehicles.³

In addition to smoke-free policies in the home and in public places, the matter of prohibiting smoking in vehicles when children are present is a public health issue ripe for action. Many tobacco control prevention advocates have long believed that a prohibition against smoking in cars is prudent and necessary to protect children and youth from serious health risks. There is now compelling scientific evidence of substantial health risks associated with exposure.

Health Effects of Secondhand Smoke:

- **Asthma** attacks are perhaps the most well-known health effect of secondhand smoke exposure among children. Secondhand smoke exposure increases the frequency of episodes and the severity of symptoms in children with asthma. Secondhand smoke exposure causes children who already have asthma to experience more frequent and severe attacks.^{1,2}
- **Low birth weight:** Secondhand smoke is a cause of low birth weight, contributing to infant mortality and health complications into adulthood. Secondhand smoke exposure reduces the birth weight of infants of nonsmoking mothers and contributes to additional reductions in birth weight among babies of smoking mothers.^{1,2}
- **Respiratory Complications:** Secondhand smoke exposure increases the risk of lower respiratory tract infections such as bronchitis and pneumonia. Infants whose mothers smoke are 50 percent more likely to be hospitalized with a respiratory infection during their first year when compared to infants with nonsmoking mothers.⁴

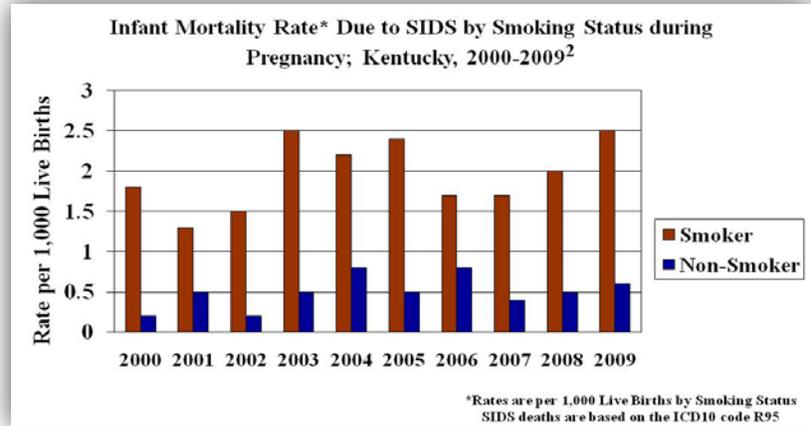
¹ Kentucky Vital Statistics Files; Linked Live Birth and Death Certificate Files; 2002-2009.

² Behavioral Risk Factor Surveillance System (BRFSS); 2009

³ U.S. Department of Health and Human Services. *Children and Secondhand Smoke Exposure: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking Health, 2007.

- **Sudden Infant Death Syndrome (SIDS):**

Maternal smoking is the most significant risk factor associated with SIDS.⁴ Infants born to women who smoke during pregnancy are 3-5 times more likely to die from SIDS than those born to women who did not smoke during pregnancy.



Best Practices:

The 2007 Surgeon General's report⁴ states that the only effective way to eliminate secondhand smoke exposure in the home is establishing a smoke-free home (ventilation of a room is insufficient). Educational efforts must be focused on helping parents understand why secondhand smoke is a health hazard and how to effectively protect their children. Further, pediatricians should consider secondhand smoke exposure as a significant medical issue. Children should be screened for exposure and parents advised to quit and referred to community interventions for assistance or Kentucky's Tobacco Quitline.

The Global Youth Tobacco Survey, developed by the World Health Organization and the U.S. Centers for Disease Control and Prevention, interviewed students between ages 13 and 15 in 140 countries between 2000 and 2007 and found that approximately **80%** favored smoke-free environments.⁴ Twenty-six states have enacted smoke-free laws, and as of May 2011, 33.6% of Kentuckians are protected by comprehensive smoke-free workplace laws or regulations.

Conclusion:

In a 2006 report titled, *The Health Consequences of Involuntary Exposure to Secondhand Smoke*, the U.S. Surgeon General concluded that **there is no safe level of exposure to secondhand smoke** and that, on average, children are exposed to more secondhand smoke than adults."⁵ Children receiving high doses of secondhand smoke, such as those with smoking mothers, run the greatest risk of damaging health effects. Policies to restrict smoking in public and indoor places are primarily motivated by the tremendous public health burden associated with secondhand smoke exposure. This burden not only translates into disease morbidity and premature mortality, but also exerts profound stress on healthcare resources and systems already struggling to address the related burden of active smoking.

⁴ Warren, C.W., Jones, N.R., & Peruga, A. (2008). "Global youth tobacco surveillance," *Morbidity and Mortality Weekly Report* 57(SS01): 1-21.

⁵ U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.