

Smoking Ban in Vehicles with Minors

2014 Study Findings

Purpose

Assess health risks associated with secondhand smoke (SHS) exposure to minors in motor vehicles and the feasibility of passing a smoke-free cars policy in Arizona.

Methods

Literature review of health, societal, and fiscal impacts associated with SHS exposure to minors in motor vehicles. Analysis of other states' policies and policy processes. Interviews with 14 key informants and stakeholder groups. Statewide public opinion poll.

Smoking in Cars with Children Legislation by State

State/ Commonwealth	Effective Date	Applicable Age
Arkansas	2006; Revised 2011	Under age 14
Louisiana	2006	Under age 13
California	2008	Under age 18
Maine	2008	Under age 16
Oregon	2014	Under age 18
Puerto Rico	2007	Under age 13
Utah	2013	Under age 16
Vermont	2014	Under age 8

Key Findings

- The amount of pollution children inhale from SHS in cars is similar to that in smoke-filled bars.
- More than 7 in 10 Arizonans support a ban on smoking in cars when children under age 18 are passengers.
- Any policy attempt should be made at the state level with violations classified as a secondary offense.
- Policy efforts must include a stakeholder coalition and an education and awareness campaign.

Quick Facts

National Figures:

- 2 of every 3 children ages 3-11 are involuntarily exposed to secondhand smoke (SHS).¹
- Children exposed to SHS are at increased risk for sudden infant death syndrome (SIDS), childhood cancers, slowed growth and decreased lung function, asthma, ear infections, depression, and Attention-Deficit Hyperactivity Disorder (ADHD).
- Children inhale more harmful chemicals from secondhand smoke than adults in the same environment because they have immature lungs,² greater oxygen requirements, and breathe faster than adults.³
- 5.6 million children alive today will ultimately die early from SHS exposure.⁴
- SHS is responsible for an estimated 150,000-300,000 new cases of bronchitis and pneumonia, and 7,500-15,000 hospitalizations annually in children aged 18 months or younger.⁵
- SHS exposure within a confined motor vehicle is especially dangerous because SHS is even more concentrated and reaches harmful levels rapidly, regardless of open windows or use of the vehicle's ventilation system.⁶
- Exposure to toxic pollutants via SHS could exceed the daily pollution levels deemed harmful for children after just two cigarettes smoked inside a motor vehicle.⁷
- The amount of SHS kids are exposed to in motor vehicles in which smoking occurs is comparable to the amount of SHS they would be exposed to if they were to hang out in a smoke-filled bar.⁸

Arizona Figures:

- 3 of every 5 Arizona children live in counties that receive failing air quality grades from the Arizona Lung Association,⁹ which means that more than 1 million Arizona children, including more than 86,000 children with asthma, are breathing in polluted air at levels that can cause irreparable damage to their health, prior to SHS exposure.
- 1 of every 5 (approximately 320,000) Arizona children are exposed to SHS within motor vehicles each week.^{10,11,12}

¹ U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (2006).

² Hai, V. N. (2013). Do smoke-free car laws work? Evidence from a quasi-experiment. *Journal of Health Economics*, 32, 138-148.

³ Rees, V.W., & Connolly, G.N. (2006). Measuring air quality to protect children from secondhand smoke in cars. *American Journal of Preventative Medicine*, 31(5), 363-368.

⁴ U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (2014). *The health consequences of smoking—50 years of progress. A report of the Surgeon General*. Retrieved from <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>

⁵ U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (2006).

⁶ Sendzik, T., Fong, G. T., Travers, M. J., & Hyland, A. (2008).

⁷ Ott, W., Klepeis, N., & Switzer, P. (2008). Air change rates of motor vehicles and in-vehicle pollutant concentrations from secondhand smoke. *Journal of Exposure Science and Environmental Epidemiology*, 18, 312-325.

⁸ Rees, V.W., & Connolly, G.N. (2006). Measuring air quality to protect children from secondhand smoke in cars. *American Journal of Preventative Medicine*, 31(5), 363-368.

⁹ <http://www.stateoftheair.org/2014/states/arizona/>

¹⁰ Arizona Department of Health Services. (2013). *Arizona Youth Tobacco Survey: 2013 report*. Retrieved from: <http://azdhs.gov/tobaccofreeaz/reports/pdf/az-youth-tobacco-survey-report-2013.pdf>

¹¹ King, B.A., Dube, S.R., & Tynan, M.A. (2012). Secondhand smoke exposure in cars among middle and high school students—United States, 2000-2009. *Pediatrics*, 129(3), 1-7. doi:10.1542/peds.2011-2307

¹² Based on 2012 U.S. Census Estimates for Arizona population under 18 years of age. <http://quickfacts.census.gov/qfd/states/04000.html>