

# Maricopa County Policy Assessment: Smoking Ban in Vehicles with Minors

June 2014

Prepared by:

Holly L. Figueroa, MSW  
Ashley Lynch, MSW  
Christine W. Totura, Ph.D.  
Wendy Wolfersteig, Ph.D.

 Southwest Interdisciplinary  
Research Center

ARIZONA STATE UNIVERSITY

Funding provided by:

Maricopa County Department of Public Health

 Department of Public Health

Page intentionally left blank

## Executive Summary

The state of Arizona has been active in tobacco-control efforts for over two decades. In 2006, the Smoke-Free Arizona Act (A.R.S. §36-601.01) outlawed smoking within most enclosed public spaces and places of employment to reduce employees' involuntary exposure to harmful secondhand smoke (SHS). In 2007 and 2010, David Schapira, a member of the Arizona House of Representatives and State Senate until January 2014, attempted but failed to pass bills that would ban smoking in vehicles when minors were among the passengers. Despite research indicating the health risks of both second- and thirdhand smoke to children, especially those with asthma or other lung conditions, only seven states have successfully passed a smoking ban in vehicles with minors thus far.

The purpose of the current study was to conduct research and policy analysis surrounding the issue of smoking in vehicles with minors to assess the feasibility of implementing this type of ban in Arizona and to recommend the best strategies for moving policy efforts forward.

## Evaluation Objectives

Four specific objectives guided the project:

1. Identify and summarize the health risks associated with second- and thirdhand smoke exposure to minors riding in motor vehicles.
2. Review and summarize smoking in vehicles with minors legislation in Arizona and in other states.
3. Prepare priority policy alternatives and identify key stakeholders, policy champions and policy promotion tools to consider.
4. Identify and assess the level of public support in Arizona for a smoking ban in vehicles with minors.

## Study Methodology

Data were collected through a multi-method approach consisting of archival data, key informant interviews, and a statewide, telephone-based public opinion survey.

### *Archival Data*

Data were collected from the research literature regarding the health risks and societal and fiscal impacts associated with second- and thirdhand smoke exposure to minors in motor vehicles. Official and proposed policy language, meeting minutes and recordings, and other documentation were collected to assess smoking in motor vehicles with minors legislation both locally and nationwide.

### ***Key Informant Interviews***

Fourteen key informants participated in face-to-face and/or telephone interviews. These informants, listed below, included lobbyists and legislative liaisons representing county and state-level decision makers as well as community stakeholder groups.

**Candace Alexander**, COPD/Coalition Manager for Northern Arizona and Mary Kurth, Program Director Arizona COPD Coalition

**Mark Bogart**, Senior Policy Advisor, Democratic Caucus, Arizona House of Representatives

**Colby Bower**, Legislative Liaison, Arizona Department of Health Services

**Kristin Cippola**, Legislative Liaison, County Supervisors Association

**Leland Fairbanks**, President, Arizonans Concerned About Smoking

**Barb Fanning**, Director of Government Affairs, Arizona Hospital and Healthcare Association (AzHHA)

**Stuart Goodman**, Principal, Goodman Schwartz Public Affairs

**Bryan Hummel**, Arizona Director of Government Relations, American Cancer Society

**Rebecca Nevedale**, Associate Director, Arizona Chapter of the American Academy of Pediatrics (AzAAP)

**Nicole Olmstead**, Government Relations Director, American Heart Association Arizona

**Beth Rosenberg**, Director of Child Welfare and Juvenile Justice, Children's Action Alliance

**David Schapira**, Assistant Superintendent of East Valley Institute of Technology (EVIT) & former Arizona State Legislator

**Christian Stumfd**, Regional Director of Government Relations, American Lung Association

**Brianne Westmore**, State Director of Program Services, March of Dimes

### ***Telephone Public Poll Surveys***

A telephone-based public opinion survey was conducted to assess statewide attitudes, beliefs, and preferences related to a smoking in vehicles with minors policy. The survey was designed and conducted in coordination with the Behavior Research Center and included both landline and cellular telephones. Interviews were conducted in both English and Spanish with 710 adult heads of household throughout Arizona, including 423 Maricopa County residents, using Computer Assisted Telephone Interviewing (CATI) techniques. Survey responses are weighted by county, political party, and age in order to be more representative of all Arizonans.

## Policy Alternatives

Assessment of policy alternatives included consideration of the following:

1. Age of children to whom the law would apply
2. Classification of the offense (primary or secondary)
3. Enforcement standards
4. Level at which the policy might be passed (city, county, or state)
5. Public support for the policy

## Key Findings

- Each week, approximately 320,000 Arizona children are directly affected by the smoking in cars issue.
- More than 9 in 10 Arizonans agree that secondhand smoke is harmful.
- While Arizona stakeholder organizations support a ban on smoking in vehicles with minors, it is not a high priority issue for them at this time. However, support and interest might increase under certain conditions.
- Smoking in vehicles with minors policies should be attempted at the state level.
- Nanny state and civil liberties concerns are the two primary oppositional arguments to a smoking in vehicles with minors ban.
- More than 7 in 10 (72%-74%) Arizonans would support a law that bans smoking in cars when children under 18 are among the passengers.
- Arizonans Concerned about Smoking has already begun collecting signatures on a petition to ban smoking in cars with minors.

## Policy Recommendations

1. Put together a coalition of stakeholders to further discuss the issue.
2. Carefully consider whether resources are better spent on legislation or an education and awareness campaign.
3. Focus on implementing the policy at the state level.
4. Conduct an educational campaign.
5. Assess attitudes and beliefs around e-cigarette usage and harm.
6. Monitor the 2014 Governor, Speaker, and Senate President races.
7. Enforce the policy as a secondary offense with civil penalties that begin with a warning, impose increasing fines with subsequent violations, and offer participation in a smoking cessation program.

# Maricopa County Policy Assessment: Smoking Ban in Vehicles with Minors

## Overview

The purpose of the Maricopa County Smoking Ban in Vehicles with Minors Policy Assessment Study was three-fold: 1) to evaluate the health risks of second- and thirdhand smoke to children riding in motor vehicles in which smoking occurs; 2) to evaluate the existing initiatives related to prohibiting tobacco use in vehicles with minors both state- and nationwide, as well as barriers and facilitators to adoption and implementation of such policies; and 3) to recommend strategies for moving forward with such a policy in Arizona.

Four specific objectives guided the project:

1. Identify and summarize the health risks associated with second- and thirdhand smoke exposure to minors riding in motor vehicles.
2. Review and summarize smoking in vehicles with minors legislation in Arizona and in other states.
3. Prepare priority policy alternatives and identify key stakeholders, policy champions and policy promotion tools to consider.
4. Identify and assess the level of public support in Arizona a smoking ban in vehicles with minors.

## Methodology

Data were collected through a multi-method approach consisting of archival data, key informant interviews, and a statewide, telephone-based public opinion survey.

### *Archival Data*

Data were collected from the research literature regarding the health risks, societal and fiscal impacts associated with second- and thirdhand smoke exposure to minors in motor vehicles. Official and proposed policy language, meeting minutes and recordings, and other documentation were collected to assess smoking in motor vehicles with minors legislation both locally and nationwide.

### ***Key Informant Interviews***

Fourteen key informants participated in face-to-face and/or telephone interviews. These informants, listed below, included lobbyists and legislative liaisons representing county and state-level decision makers as well as community stakeholder groups.

**David Schapira**, Assistant Superintendent of East Valley Institute of Technology (EVIT) & former Arizona State Legislator

**Stuart Goodman**, Principal, Goodman Schwartz Public Affairs

**Nicole Olmstead**, Government Relations Director, American Heart Association Arizona

**Christian Stumfd**, Regional Director of Government Relations, American Lung Association

**Beth Rosenberg**, Director of Child Welfare and Juvenile Justice, Children's Action Alliance

**Barb Fanning**, Director of Government Affairs, Arizona Hospital and Healthcare Association (AzHHA)

**Candace Alexander**, COPD/Coalition Manager for Northern Arizona and Mary Kurth, Program Director Arizona COPD Coalition

**Brianne Westmore**, State Director of Program Services, March of Dimes

**Colby Bower**, Legislative Liaison, Arizona Department of Health Services

**Mark Bogart**, Senior Policy Advisor, Democratic Caucus, Arizona House of Representatives

**Leland Fairbanks**, President, Arizonans Concerned About Smoking

**Rebecca Nevedale**, Associate Director, Arizona Chapter of the American Academy of Pediatrics (AzAAP)

**Bryan Hummel**, Arizona Director of Government Relations, American Cancer Society

**Kristin Cippola**, Legislative Liaison, County Supervisors Association

### ***Telephone Public Poll Surveys***

A telephone-based public opinion survey was conducted to assess statewide attitudes, beliefs, and preferences related to a smoking in vehicles with minors policy. The survey was designed and conducted in coordination with the Behavior Research Center and included both landline and cellular telephones. Interviews were conducted in both English and Spanish with 710 adult heads of household throughout Arizona, including 423 Maricopa County residents, using Computer Assisted Telephone Interviewing (CATI) techniques. Survey responses are weighted by county, political party, and age in order to be more representative of all Arizonans.

## **Problem Analysis: Health Risks and Extent of the Problem**

## Quick Facts

### ***National Figures:***

- 2 of every 3 children ages 3-11 are involuntarily exposed to secondhand smoke (SHS).<sup>1</sup>
- 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,<sup>2</sup> greater oxygen requirements, and breathe faster than adults.<sup>3</sup>
- 5.6 million children alive today will ultimately die early from SHS exposure.<sup>4</sup>
- Direct medical costs from exposure to SHS among U.S. children exceed \$700 million per year.<sup>5</sup>
- In children aged 18 months or younger, SHS is responsible for an estimated 150,000-300,000 new cases of bronchitis and pneumonia, and 7,500-15,000 hospitalizations annually.<sup>6</sup>
- 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.<sup>7</sup>
- 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.<sup>8</sup>
- 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.<sup>9</sup>

### ***Arizona Figures:***

- 3 of every 5 Arizona children live in counties that receive failing air quality grades from the Arizona Lung Association.<sup>10</sup>
  - This means that before the problem is made exponentially worse by children's involuntary exposure to SHS, 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.
- 1 of every 5 children are exposed to SHS within motor vehicles each week.<sup>11,12</sup>
  - This means that each week approximately 320,000 Arizona children are directly affected by the smoking in cars issue.<sup>13</sup>

## Background

Smoking, including exposure to secondhand smoke (SHS), is the single leading cause of preventable death and disease in the United States and places a high burden on society.<sup>14</sup> **Secondhand smoke** is defined as tobacco smoke that is exhaled by smokers or given off by burning tobacco products and inhaled by persons nearby. A relatively new term, **thirdhand smoke**, refers to the SHS that settles on objects in an environment exposed to smoking. This remaining SHS essentially creates a cocktail of toxins that builds up over time and clings to skin, hair, clothing, upholstery, carpet and other surfaces long after tobacco products are extinguished and the SHS in the air dissipates.<sup>15</sup>

Both second- and thirdhand smoke have been shown to be harmful to children as well as adults. It is well-documented that SHS exposure at any age causes significant adverse physical conditions such as cardiovascular diseases<sup>16</sup>, upper and lower respiratory tract infections such as the common cold, middle-ear disease, bronchitis, pneumonia, and other bacterial infections<sup>17</sup>, as well as several types of cancer.<sup>18</sup> Evidence is now sufficient to conclude that SHS exposure causes stroke as well.<sup>19</sup> The U.S. Surgeon General recently released a report stating that **there is no risk-free level of exposure to involuntary SHS**.<sup>20</sup>

Beyond their mortality and morbidity impacts, cigarette smoking and SHS exposure have significant fiscal impacts as well; they are associated with considerable economic losses to society and place a substantial burden on the US health-care system.<sup>21</sup> Cigarette smoking and exposure to SHS result in approximately 443,000 deaths and \$193 billion in direct health-care expenditures and productivity losses each year.<sup>22</sup> Direct medical costs from exposure to SHS among U.S. children exceed \$700 million per year.<sup>23</sup> However, there is strong evidence that the implementation of **smoke-free policies can help to reduce both the negative health impacts and the fiscal costs of smoking and SHS exposure to society**.<sup>24, 25</sup>

## Health Risks of SHS Exposure to Children

Secondhand smoke can have a significant negative effect on the cardiovascular system, similar to the impact on active smokers, and increases the risk of heart disease by approximately 30 percent.<sup>26</sup> Past and present exposure to SHS in childhood causes a direct and irreversible damage to the structure of the arteries, which puts exposed children at an increased risk for heart attack and stroke later in life. Additionally, SHS exposure may lead to changes in serum lipid profile in children and adolescents, particularly to a decrease in high-density lipoproteins (HDL) cholesterol. Since thickness of the arterial wall is considered a predictor of early atherosclerosis, it has been proposed that SHS exposure may advance the development of atherosclerosis and other cardiovascular diseases into adulthood.<sup>27</sup>

The 2014 Surgeon General report stated that **5.6 million children alive today will ultimately die early as a result of SHS exposure**. Despite these facts, approximately two out of every three (66%) children ages 3-11 are involuntarily exposed to SHS, and about 25% of all U.S. children live with one or more persons who smoke.<sup>28</sup> SHS is particularly detrimental to children and adolescents' physical

health due to their developing and immature immune systems, and to their respiratory systems due to smaller airways and greater demand for oxygen.<sup>29</sup> On average, lung development and growth continues well into the late adolescent years for females and early 20's for males.<sup>30</sup>

Children exposed to tobacco smoke are at an increased risk for short-term and long-term physical health effects which include, but are not limited to, the following:

- Sudden infant death syndrome (SIDS);<sup>31</sup>
- Ear infections<sup>32</sup>;
- Respiratory Syncytial Virus (RSV);<sup>33</sup>
- Respiratory tract infections;
- Respiratory complications, induction and exacerbation of asthma;<sup>34</sup>
- Increased risk of current and incessant wheeze;<sup>35</sup>
- Slowing lung growth;<sup>36</sup>
- Decreased lung function;
- Meningitis;
- Otitis media;
- Dental decay;
- Stunted physical growth;
- Metabolic syndrome;<sup>37</sup>
- Higher levels of nicotine-dependent symptoms,<sup>38</sup> and more.

While exposure to SHS is also well-known risk factor for cancer, emerging evidence suggests it may also be associated with childhood cancers,<sup>39</sup> such as nasal sinus cancer and breast cancer in young, primarily premenopausal females.<sup>40</sup>

Exposure to SHS has also been linked to mental health issues such as Major Depressive Disorder (MDD), General Anxiety Disorder (GAD), Attention-Deficit Hyperactivity Disorder (ADHD), and Conduct Disorder (CD), as defined by the Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV). Involuntary childhood exposure to SHS may also worsen or advance the onset of other mental health symptoms for children and adolescents.<sup>41</sup>

## SHS Exposure in Motor Vehicles

Many nations and more than half of all U.S. states have smoke-free workplace laws. Although these laws are popular with the public and largely self-enforcing,<sup>42</sup> they fail to protect children in the two settings where they most commonly face exposure—homes and cars. Multiple studies show that minors, cars and cigarettes are a particularly dangerous combination,<sup>43</sup> leading many scientists and policymakers to conclude that regulation of smoking in cars is needed to protect children from harm.<sup>44</sup> **SHS exposure within a confined motor vehicle is especially critical because SHS is even more concentrated and reaches harmful levels rapidly, regardless of open windows or use of the vehicle's ventilation system.**<sup>45</sup> Additionally, fewer households, regardless of smoking status, report having smoking bans in their vehicles than in their households<sup>46</sup>, indicating that a misconception may exist that leads individuals to erroneously believe that SHS in their vehicles is less harmful than SHS inside their homes. Indeed, through a

qualitative study with 136 families in rural Georgia, researchers<sup>47</sup> found a widespread, inaccurate belief that SHS is not a problem when car windows are down.

Ventilating vehicles fails to protect those inside the vehicle from health risks associated with exposure. In air quality tests, concentrations of secondhand smoke in vehicles have been found to be far greater than in any other micro-environments tested, including smoke-free homes, smokers' homes, smoke-filled bars, and outdoor air—even with a vehicle's windows open and its fan set on high.<sup>48</sup> Evidence suggests that SHS exposure in vehicles produces fine particulate concentration that creates consequential health risks, most notably if exposure to SHS with minors riding in a vehicle is common practice.<sup>49</sup> As a result, children and youth who are exposed to these high levels of particulates are at increased risk for any number of the adverse health effects previously described.<sup>50</sup>

Scientific assessments of the concentrations of toxins inside vehicles from SHS tend to measure the amount of fine particulate matter (PM<sub>2.5</sub>), or “particle pollution”, in the air. This type of pollution is especially damaging because when inhaled these harmful particles can travel deeply into the lungs and can have a wide variety of negative short- and long-term health effects<sup>51</sup>. The U.S. Environmental Protection Agency's National Ambient Air Quality Standards (NAAQS) set the short-term air quality standard for PM<sub>2.5</sub> at 35 micrograms per cubic meter of air (µg/m<sup>3</sup>) and the long-term standard at 12-15 µg/m<sup>3</sup>, the lesser of which is considered damaging for “sensitive” populations such as children, asthmatics, and the elderly.<sup>52</sup>

In a study examining the particle pollution (PM<sub>2.5</sub>) produced by SHS inside motor vehicles, Sohn and Lee (2010)<sup>53</sup> found average PM<sub>2.5</sub> levels of 506 µg/m<sup>3</sup> in the car with the smoker's window fully open, 877 µg/m<sup>3</sup> with the smoker's window half open, and 1307 µg/m<sup>3</sup> with the smoker's window open only 10 cm, as one might find on a rainy or cold day in most states (or on hot days in many areas of Arizona). These levels, measured in the vehicle during the 3-minute smoking period, represent PM<sub>2.5</sub> concentrations that are 30-77 times higher than the PM<sub>2.5</sub> levels in the vehicle prior to lighting the cigarette, and 14-37 times higher than the short-term particle pollution standards set by the EPA to protect public health and welfare. The PM<sub>2.5</sub> levels remained several times higher than the EPA's standard after the cigarette was extinguished, even with the window open.

Rees and Connolly (2006)<sup>54</sup> measured carbon monoxide (CO) and particle pollution (PM<sub>2.5</sub>) concentrations in vehicles during periods of smoking from the simulated position of a child's head in a child-restraint seat. They found average PM<sub>2.5</sub> concentrations of 272 µg/m<sup>3</sup> and a significant increase in CO, a poisonous gas, when the driver's window was only slightly open, and an average PM<sub>2.5</sub> concentration of 51 µg/m<sup>3</sup> when all windows were at least halfway open during smoking periods. Although these particle pollution levels are smaller than those found in some other studies, they remain much higher than the EPA's healthy air quality standards.

Rees and Connolly (2006) then compared the particle pollution (PM<sub>2.5</sub>) levels they found from smoking in vehicles to PM<sub>2.5</sub> levels that other studies found in bars that allowed smoking, the latter of which ranged from 206-412 µg/m<sup>3</sup>. The comparisons indicate that **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.**

Additionally, thirdhand smoke, which is leftover as the SHS settles into vehicle surfaces and is contaminated with nicotine and residual smoke gases and particles, is dangerous for children—especially infants and young children—because they frequently touch and put their mouths to contaminated surfaces. Children breathe faster than adults and have smaller lung capacity; consequently, they ingest about twice as much of this toxic dust as adults.<sup>55</sup>

Data indicate that approximately one in five children is exposed to SHS in a motor vehicle within any given week.<sup>56,57</sup> Based on the 2013 U.S. Census population estimates, this means that **approximately 320,000 Arizona children are directly affected by this issue** and could experience short- or long-term negative health impacts as a result.

## **Policy History: Smoking in Vehicles with Minors**

## Arizona

There have been two separate bills in Arizona related to smoking in motor vehicles with minors, HB 2076 and HB 2729. Both bills were introduced by former State Representative, David Schapira (D), and were held in committees after the House second read, thus failing to pass.

Representative Schapira, who was interviewed for this study, reported that he initially set the policy to apply to all children under the age of 18 based on state code regarding what constitutes a minor. The second time he proposed the bill he lowered the age to 16 because it is the driving age and the age at which someone could have his own car. The initial impetus for the bill was a combination of both the negative impacts of tobacco exposure to children and the inability of children to choose their own environment – a person who does not have a say regarding whether he wants to inhale secondhand smoke, which can have adverse short-term and long-term health effects, should be protected. He also argued that Arizona has a unique characteristic in that there is a large portion of the year during which it is uncomfortable to have the windows rolled down, an argument that other stakeholders mentioned as being relevant as well.

While the bills did not have much institutional opposition and did have the support of the American Cancer Society and the American Heart and Lung Associations, the bills were assigned to several committees, which is normally done when the Speaker or President is trying to kill a bill, and the committee chairs refused to grant the bills a hearing. Representative Schapira reported that the main focus of the bills was to protect small children, but because the bills were never granted a hearing, he did not get a chance to discuss lowering the age to make the policy more palatable.

**More specific information about each version of the smoking in vehicles with minors ban attempted in Arizona is available in Appendix A.**

## Nationwide

### *Policies: Passed*

To date, eight states (including Puerto Rico) and nine local governments have successfully adopted policies that prohibit smoking in motor vehicles when children are present (Table 1 and Table 2).

Table 1. States in which legislation passed: Policy characteristics.

Passed	Age Criteria	Sponsor	Penalty
<b>Arkansas (2006; 2011)</b>	<14 (originally passed < 6)	Sen. Malone (D)	Fine up to \$25. Entering a smoking cessation program waives fine for 1 <sup>st</sup> violations.
<b>Louisiana (2006)</b>	<13	Rep. Gary Smith, Jr. (D)	Fine of \$150/offense (or at the discretion of the judge); may be sentenced to no less than 24 hours of community service—Primary Offense.
<b>California (2008)</b>	<18	Sen. Jenny Oropeza (D)	Fine of up to \$100—Secondary Offense.
<b>Maine (2008)</b>	<16	Rep. Brian Duprey (R)	Fine up to \$50 penalty or a warning given in the discretion of the law enforcement officer—Secondary Offense.
<b>Oregon (2014)</b>	<18	Lead Sponsor— Sen. Steiner Hayward (D); Co-Sponsor(s)— 11 (D) and 2 (R)	Smoking in a motor vehicle is a Class D traffic violation for a first offense and Class C traffic violation for a second or subsequent offense; \$250 for 1st violation; Class C offense, \$500 for subsequent violations—Secondary Offense.
<b>Puerto Rico (2007)</b>	<13	N/A	Fine up to \$250 for a first offense. Administrative charge (not criminal).
<b>Utah (2013)</b>	<16	Lead Sponsor— Sen. Arent (D); Co-Sponsor(s)—7 (D) and 14 (R)	Fine up to \$45, which can be waived if they enroll in a program to quit smoking—Secondary Offense.
<b>Vermont (2014)</b>	<8	Rep. Komline (R) with 3(R), 5(D), 2(I)	Fine of not more than \$100. No points assessed.

**The details of each of these policies are available in Appendix B.**

In locations where the policy passed, the age of children to whom the law applies ranges from under eight to all minors under the age of 18; offenses are primarily classified as secondary; and penalties include fines ranging from \$25-\$250 for a first offense.

While many of the states faced barriers and concerns about government reach (i.e., the “nanny state” argument), champions counteracted such arguments with the negative health impact and risks associated with second- and thirdhand smoke exposure to minors in motor vehicles, as well as the societal and economic impact on communities.

Table 2. Cities and counties in which legislation passed: Policy characteristics.

Passed	Age Criteria	Sponsor	Penalty
<b>Bangor, ME (2007)</b>	<18		
<b>Hawaii County, HI (2010)</b>	<18	N/A	Fined between \$25-50—Secondary Offense.
<b>Keyport, NJ (2007)</b>	<18	N/A	Fined at \$75.00—Secondary Offense.
<b>Loma Linda, CA (2008)</b>	<18		
<b>Martinez, CA (2009)</b>	<18		
<b>Monroe County, IN (2009)</b>	<14	N/A	Class D Ordinance Violation—Secondary Offense.
<b>Rockland County, NY (2007)</b>	<18	N/A	Criminal violation. Initial fines between \$75-150. Subsequent violations subject to fines between \$150 and \$250.
<b>Rohnert Park, CA (2009)</b>	<18		
<b>West Long Branch, NJ (2007)</b>	<18	N/A	Fined at \$75.00—Secondary Offense.

For states in which the legislation passed, the bills were predominately heard in the following standing committees:

- Committee on Public Health, Welfare and Labor;
- Committee on Transportation, Highways, and Public Works;
- Committee on Health; and
- Health and Human Services Committee.

***Policies: Failed to Pass***

There have been at least 20 states and 2 counties that have failed to pass the legislation (Table 3). In states that failed to pass the legislation, the following outcomes were most prevalent:

- Failed to get assigned to a standing committee;
- Assigned to multiple standing committees;
- Did not get heard in standing committee(s);
- Never made it out of standing committee(s);
- Went through the committee(s) and came out with a “do not pass”; and/or
- Failed to pass either the House or Senate chambers.

Table 3. States and counties in which legislation failed to pass.

Location: Failed to Pass	Age	Sponsor(s)
<b>Arizona</b> (2007; 2010)	<18; <16	Lead Sponsor—Rep. Schapira (D) (1 <sup>st</sup> and 2 <sup>nd</sup> bills); Co-Sponsor(s)(2 <sup>nd</sup> bill)— 10 (D) and 2 (R)
<b>Augusta, Georgia</b> (2012)	<14	Commissioners Johnson, Aitken, Brigham
<b>Connecticut</b> (2013)	6 and under, or less than 60 lbs. and required to be in child restraint	Lead Sponsor—Rep. Genga (D); Co-Sponsor(s)—40 (D) and 2 (R)
<b>Illinois</b> (2010; 2014; 2014)	<8; <13; <18	Rep. Evans (D); Sen. Silverstein (D)
<b>Indiana</b> (2008)	<13	Rep. Brown C (D)
<b>Kentucky</b> (2011)	<17	Reps. Stumbo (D), Riner (D), Marzian (D)
<b>Maryland</b> (2013)	<8	Sen. Zirkin (D); Forehand (D)
<b>Massachusetts</b> (2010; 2012)	<12; <18	Rep. Heroux (D)
<b>Michigan</b> (2007)	<4	Rep. Moolenaar (R)
<b>Mississippi</b> (2012)	<17	Sen. Frazier (D)
<b>Nassau County, NY</b> (2011)	<18	County legislators Bosworth (D); Jacobs (D)
<b>New Jersey</b> (2008; 2010)	<16	Lead Sponsor—Sen. Lesniak (D); Co-Sponsor(s)—2 (D)
<b>New York</b> (2013)	<14	Sen. Stavisky (D), Martins (R), Parker (D)
<b>North Dakota</b> (2009)	<16	Lead Sponsor—Sen. Lyson (R); Co-Sponsor(s)—2 (D) and 2 (R)
<b>Ohio</b> (2012)	<6	Sen. Tavares (D)
<b>Pennsylvania</b> (2009)	<18	Lead Sponsor—Rep. Cruz (D); Co-Sponsor(s)—8 (D)
<b>Rhode Island</b> (2013)	<18	Sen. Sosnowski (D)
<b>South Carolina</b> (2011)	<6 (House); <10 (Senate)	Lead Sponsor—Reps. Brady (R); Co-Sponsor(s)—3 (D) and 2 (R)
<b>Tennessee</b> (2010)	<8	Lead Sponsor—Rep. Hensley (R); Co-Sponsor(s)—1 (D) and 1 (R))
<b>Virginia</b> (2013; two separate bills)	<15; <13	Lead Sponsor—Senator Northam (D); Co-Sponsor(s)—2 (D)
<b>Washington State</b> (2011; 2014)	<18	Sen. White (D), Shin (D), Kohl-Welles (D), Prentice (D)

Note: Vermont failed to pass smoking in cars legislation twice beginning in 2008 (under age 18 and under age 13) before finally passing it in 2014 (under age 8).

### *Policy Champions and Opponents*

The policy champions of smoking in motor vehicles with minors legislation have primarily included health departments; medical groups and pediatric associations; American Heart, Lung, and Cancer Associations/Societies; tobacco prevention organizations; and youth groups.

Overall, organized opposition to such policies has been minimal and has primarily included smokers' rights groups and individual citizens.

**There were no discernable differences between policy champions and opponents in states where the legislation passed compared to those where it failed to pass.**

**Policy champions/opponents for passed policies are available in Appendix C.**

### Related Arizona Policies

#### *Arizona Administrative Code § 6-5-7465(K)*<sup>58</sup>

This policy prohibits foster care licensees from:

- 1) Exposing a child in care to tobacco products or smoke
- 2) Allowing any person to use tobacco products inside buildings
- 3) Allowing a child in care to use or possess tobacco products

The first component of the policy includes motor vehicles in which a foster child is a passenger, while the second component also bans smoking in foster homes.

#### *Arizona Distracted Driving Law*<sup>59</sup>

Arizona Revised Statute (A.R.S.) 28-701 is Arizona's distracted driving law. It bans driving at a speed greater than what is "reasonable and prudent under the circumstances, conditions, and actual and potential hazards then existing".

The Arizona Department of Public Safety recently announced that it will use this statute as a way to crack down on distracted driving, including texting and other cell phone use.<sup>60</sup> Additionally, despite the repeated failure of texting bans through the state legislature, the cities of Phoenix and Tucson put their own texting bans into place with fines ranging from \$100-250 (Phoenix City Code 36-76.01; Tucson City Code 20-160).

The ability of these two cities to enact texting while driving bans indicates that it may also be possible to pass smoking in vehicles with minors bans at the local level.

## **Analysis of Policy Alternatives**

## Key Policy Components

Among the eight U.S. states/territories that have enacted smoke-free motor vehicle policies, key variables have included the following: 1) age of children and youth to whom the law applies, ranging from under age 8 to under age 18; 2) classification of the offense as either primary or secondary; and 3) fine level, ranging from \$25 to \$250. These were therefore the three primary components considered when determining priority policy alternatives to include in the research.

Based on similar legislation passed in other states and counties as well as interviews with key stakeholders in Arizona, this study assessed the following policy components and alternatives.

### *Age of Child*

All key stakeholders were asked the ages to which a smoking ban in vehicles with minors should apply. Based on their suggestions and policy stipulations from other states and counties, the public opinion poll assessed support for the policy under four alternative ages:

1. Under 18 – all minors
2. Under 16 – the legal driving age in Arizona
3. Under 13 – pre-teens; similar to Louisiana and Puerto Rico; additionally, a July 2013 study found that 82% of adults would support a smoking in vehicles ban when minors under age 13 are present<sup>61</sup>
4. Under 8 – the age under which children are legally required to be restrained in a child booster seat in Arizona

### *Classification of an Offense as Primary or Secondary Enforcement*

All key stakeholders were asked whether they would suggest primary or secondary enforcement for the policy.

### *Fines and Penalties*

All key stakeholders were asked what types of penalties they would suggest for the policy.

**A summary of other state and county approaches to these key policy components is available in Appendix D.**

In addition to assessing various alternatives among these three key policy components, this study assessed: 1) the amount of organizational support for the policy; 2) barriers to policy adoption and implementation; 3) counter-arguments to identified barriers and suggested strategies for framing the policy issue; 4) estimates of the likelihood that the policy is successfully adopted; and 5) Arizonans' opinions and beliefs surrounding the policy.

## Findings from Key Stakeholder Interviews

### *Policy Support*

Most organizations interviewed were generally supportive of a ban on smoking in vehicles with minors; however, none of them offered to spearhead the policy effort at this time. The Heart, Lung and Cancer Associations are all supportive of issues that are more restrictive on tobacco use around kids and generally engage in all tobacco policy efforts together. Everything that they do is based on a sound scientific base, so they would need good data to show the impact of the policy before taking the charge.

Additionally, several organizations indicated needing to know: 1) who else was on board, 2) how much community support there is around this issue, 3) the official language of the policy, and 4) the knowledge and strength of the policy’s sponsor, prior to committing to put in the time and effort to move the issue forward.

Finally, while several organizations were generally supportive, they indicated that smoking in cars with minors was not a high priority policy issue for them at this time given the lack of evidence of the policy’s impact, the current political climate, and low perceived feasibility of getting the policy passed.

Table 4. Organizational support for smoking in vehicles with minors legislation

Supporters	Probable Supporters	Neither Support nor Oppose
American Heart Association	Arizona Hospital and Healthcare Association	Arizona Association of Chiefs of Police
American Cancer Society	Arizona Chapter of the American Academy of Pediatrics	
American Lung Association		
Arizona COPD Coalition		
Arizonans Concerned About Smoking		
March of Dimes		
Children’s Action Alliance		

Reasons organizations would support the policy include:

- Generally supportive of smoke-free environments and tobacco restrictions, especially around children
- Reduced healthcare costs and complications (e.g., heart disease, stroke, etc.)
- Reduced tobacco-related harm to children
- Negative impact of SHS on children’s health
- Children learn from modeling others’ behaviors so the fewer places children can see people smoking the better.

Some stakeholders indicated that their groups' support of the policy might increase if the ban included e-cigarettes as well. One stakeholder also suggested that including e-cigarettes would decrease challenges associated with enforcement.

### *Barriers*

Opposition to government regulation of smoking in motor vehicles is typically rooted in arguments about government invasion of privacy, as well as concerns about whether such laws might be difficult to enforce or might divert increasingly scarce law enforcement resources from more pressing needs.

Indeed, stakeholders suggested the following as being the primary barriers to expect in an attempt to pass a smoking in vehicles with minors policy:

- Belief that such a policy is an infringement upon personal freedoms (“nanny state” or “personal liberties” argument)
- Encroachment on parental rights - parents should have the freedom to make both good and bad decisions regarding their children
- Vehicles are private property - the next logical step that people will raise objection to is banning smoking in people’s homes (“slippery slope” argument)
- Relatively few people are exposed to SHS in vehicles
- Uncertain science
- The culture of Arizona as a libertarian state
- Finding a republican sponsor to introduce it
- Concerns about the challenges of enforcement
- Diminishing returns from increasingly restrictive tobacco policies
- Fears of being pulled over and penalized - concern that this provides yet another excuse for police with ulterior motives to pull people over
- Lack of organizations and policy makers among whom this policy is considered a high priority issue
- How will e-cigarettes be addressed? (suggestion to include them in the ban)
- We do not currently prohibit smoking by pregnant women – what is the difference once the child is born?

**The “nanny state” and “civil liberties” arguments are the two primary arguments that one should expect to be raised in opposition to a smoking in vehicles with minors ban.**

The “nanny state” argument conveys a view that the government and/or its policies are overprotective or interfering unduly with personal choice, particularly with those related to private and personal behaviors.

“Civil liberties” arguments relate to the right to privacy and personal liberty, and claim that certain policies are government infringements upon personal freedom. This argument suggests that there are personal guarantees and freedoms that the government cannot abridge, either by law or by judicial interpretation. The argument also includes views that policies such as a smoking in vehicles with minors ban would be an encroachment on parental rights and that parents should

have the personal freedom and right to make decisions about how they raise their children and what is best for them.

While opposition from the tobacco industry was mentioned as a potential barrier, for the most part, stakeholders did not anticipate that this policy effort would receive much institutional opposition, and certainly would not have nearly as much money raised against it as was used against Smoke-Free Arizona.

### *Policy Framing*

Stakeholders suggested that the best counter-arguments to the “nanny state” and “civil liberties” arguments include the following:

- Arizona has already set a strong precedent that SHS should not involuntarily impact others (e.g., Smoke-Free Arizona).
- Arizona also has a strong precedent for protecting children from harm (e.g., child abuse laws, child restraint laws, children are not allowed to smoke tobacco and are banned from adult bookstores, etc.).
- The point is not to infringe on personal freedoms or parental rights but to protect children from harm, especially when they have no agency, no way out and no alternative.
- Children are considered vulnerable persons who require additional protections.
- Individuals still have the right to smoke in their car if they want to, just not when kids are in it.

One stakeholder also suggested that a potential counter-argument to the “slippery slope” concern is that smoking in vehicles occurs on public roads, which puts individuals in the public sphere and out in the open for everyone to see; this is not the case inside privately-owned homes.

Additional strategies for framing the policy issue, as suggested by stakeholders, include:

- Focus on protecting children and the impacts of SHS exposure to children’s health (must point to a direct harm to children).
- Children do not have a choice as to whether they are exposed to SHS in vehicles.
- Motor vehicles represent a confined space where a child is trapped with minimal ventilation.
- Concentrations of SHS in enclosed vehicles are particularly dangerous, especially to sensitive groups such as children, as indicated by the EPA.
- There is precedent for this policy as laws banning smoking in vehicles with minors already exist in several states including Louisiana, Arkansas, and Utah.

- There is precedent in Arizona regarding SHS affecting others and the idea that SHS exposure should not be involuntary – Arizona restricts smoking in bars, restaurants and other places of employment. This policy extends those policies to protect children from involuntary SHS exposure as well.
  - Smoke-Free Arizona<sup>62</sup> prohibits smoking in vehicles “owned and operated by a proprietor during working hours” when:
    - More than one individual occupies the vehicle, and
    - The vehicle is used for business purposes
- Air quality in Arizona is already bad; smoking makes it even worse and kids are negatively impacted.
  - Review hospital admissions for childhood asthma.

Finally, stakeholders suggested that policy advocates:

- Present strong scientific evidence as well as personal stories;
- Identify the benefit to smokers as well; and,
- Frame the policy as educational in intent rather than punitive.

### *Projections for Successful Policy Adoption*

All stakeholders agreed that **smoking in vehicles with minors legislation would have to be passed at the state level**. Indeed, one stakeholder commented that counties would not even have the legal authority to pass such a law at the county level.

Stakeholders had differing opinions on how likely a smoking in vehicles with minors ban would be to pass as a bill in the state legislature. Responses ranged from nearly 0% to 65%.

Those who gave the bill a higher chance of passing stated that it depended on several things including:

- 1) Who the Speaker of the House and President of the Senate are at the time the bill is introduced;
- 2) Who chairs the committee(s) to which the bill is assigned;
- 3) Who is elected Governor; and
- 4) Who sponsors the bill.

A strong, conservative sponsor raises the chances of the bill passing exponentially. Chances of it passing are also higher if the majority of other states have already passed similar legislation, but it does help somewhat that conservative states such as Louisiana, Arkansas, and Utah have passed it.

Several stakeholders suggested running the law as a ballot initiative due to Arizona’s current political climate, legislative makeup and additional barriers previously listed.

Given the results of the public opinion poll, which indicated that 72 to 74 percent of Arizonans would support a ban on smoking in vehicles with minors present, **the policy has a strong chance of passing as a ballot initiative**. However, successful

ballot initiatives tend to require significant organization and financing at levels that are oftentimes prohibitive to well-intended efforts.

## Findings from the Public Opinion Poll

Highlights from the public opinion poll that are most useful to decision making are listed below. The full report submitted by the Behavior Research Center is available in Appendix E.

### ***Support for the Policy***

**More than seven in ten (72%-74%) Arizonans would support a law that bans smoking in cars when children are among the passengers.**

Age of the children to whom the law would apply does not appear to make much of a difference as 72% of Arizonans support the policy for all children under age 18 and support increases only minimally for children under age 8 (74%).

Among registered voters, 80% of Democrats indicated that they would support the policy along with 65% of Republicans and 61% of Independents.

Support for the policy is strongest among Hispanics, women, younger adults, and those with children in the household.

Support for the policy is weakest among non-Hispanic minorities, males, adults ages 55 and older, and those without children in the household. However, even among these groups, more than 6 in 10 would support the policy.

### ***Opposition to the Policy***

Among those who would oppose a law banning smoking in vehicles with children present, three primary reasons stood out:

- 57% consider the policy government interference and think it is none of government's business
- 17% think the policy would be unenforceable
- 12% think that smoking in cars with children should be a personal choice

Interestingly, while the vast majority of Democrats and Republicans (over 95%) opposed the policy for at least one of these three reasons, nearly one-third (31%) of Independents who opposed the policy either were unsure or chose not to provide responses when asked why they did not support it.

### ***Behaviors and Beliefs Related to Smoking in Vehicles with Minors***

Respondents were asked how much harm breathing smoke from other people's cigarettes or tobacco products causes. More than half (51%) think it causes *a lot of harm* and an additional 30% think it causes *some harm*; only five percent believe that SHS causes no harm.

Women, minorities, and individuals with children in the household feel most strongly that SHS is harmful.

Among all respondents, 86% reported that smoking is never allowed in family vehicles. Similarly, among smokers, eight in ten (80%) reported that they do not smoke in the car when children are present; the majority of those who do, reported that they roll the window all the way down.

## **Policy Recommendations**

## Policy Recommendation 1

### ***Put together a coalition of stakeholders.***

In order to successfully implement tobacco restrictions, the American Heart Association, American Lung Association, and American Cancer Society must be on board. These three organizations almost always work together on tobacco policies and their absence from a tobacco policy effort would be quite noticeable.

Other stakeholders to get on board or, at a minimum, to contact, include:

- Arizona Chapter of the American Academy of Pediatrics
- Students Taking a New Direction (STAND) AZ – youth anti-tobacco coalition with 25 chapters across the state
- Arizona Hospital and Healthcare Association
- Arizonans Concerned about Smoking
- Arizona Asthma Coalition
- Arizona COPD Coalition
- March of Dimes
- Children’s Action Alliance
- AAA
- Hospice of the Valley
- Other Coalition for a Tobacco Free Arizona members

Other youth serving organizations, insurance agencies, and prevention providers such as Blue Cross Blue Shield and the YMCA are natural allies to this type of effort as well.

The policy coalition will help determine whether or not to move forward with the effort and, if so, the official messaging for the policy, including data and justifications for the policy and counter-arguments to address expected barriers and objections from policy opponents. The coalition will also be able to assess the level of fiscal support available among stakeholder groups to fund the policy effort.

## Policy Recommendation 2

### ***Carefully consider whether resources are better spent on legislation or an education and awareness campaign.***

The results of the public opinion poll suggest that while the majority of Arizonans support a ban on smoking in vehicles when children are present, the issue may not be very widespread. Approximately 86% of respondents said that smoking is never allowed in their vehicles when children are present, and even among smokers, who represented 15% of the sample, eight in ten reported that they do not smoke in their vehicles when children are passengers.

While these figures may be influenced by a response bias that leads socially undesirable behaviors to be slightly underreported, they indicate that a relatively small portion of the Arizona population may be impacted by this issue. However, the

portion of the population that is most negatively affected by smoking in cars – children – is also one of the most vulnerable and may be the least empowered to address the issue without outside assistance. Other data indicate that 1 in 5, or approximately 320,000, Arizona children may be exposed to secondhand smoke in a motor vehicle any given week. Therefore, decision makers, in coordination with the stakeholder coalition, must carefully examine whether the resources available to address the issue of smoking in vehicles with minors present are better spent advocating for formal legislation or running a comprehensive education and awareness campaign.

Either way, an educational campaign will be necessary to enhance support and awareness surrounding the issue.

### Policy Recommendation 3

#### ***Focus on implementing a smoking in vehicles with minors ban at the state level.***

While nine counties nationwide have successfully adopted policies prohibiting smoking in vehicles with minors present, local stakeholders agree that such a policy would need to be passed at the state level in Arizona. In fact, stakeholders are uncertain as to whether cities or counties would even have the legal authority to pass a smoking in vehicles with children ban, although the texting while driving ban that the city of Phoenix passed indicates that it might be possible.

Regardless, if the coalition decides to move forward with a formal policy to prohibit smoking in vehicles with minors, it is recommended that advocates first attempt to run the policy through the state legislature as a formal bill. The process might take several years as it takes time for people to get used to the idea and to increase awareness about the problem.

Since more than 7 of 10 Arizonans support a ban on smoking in vehicles with minors, the policy has a stronger chance of passing as a ballot initiative than it has of passing through the state legislature. However, ballot initiatives are very expensive – upwards of \$2 million is expected to be successful – and, given the low placement of the policy on stakeholders’ current priority lists, this may not be the best route to take, at least initially.

### Policy Recommendation 4

#### ***Conduct an educational campaign.***

A comprehensive education and awareness campaign could help raise awareness of the dangers associated with smoking in motor vehicles, particularly to children, and could increase support for the policy among lawmakers and the general public.

A successful educational campaign might include informative videos, print ads, talking points, posters, social media, and one-on-one meetings with policymakers to discuss the issue. Examples of other states’ media and educational tools are available in Appendix F.

Educational campaigns are a necessary component of tobacco control policies, both during the advocacy period as well as upon policy adoption and implementation. The campaign should combine presentation of strong scientific evidence about the harms of secondhand smoke in motor vehicles with personal stories, ideally from the youth perspective.

For example, a video, such as the one produced by the California Tobacco Control Program (Appendix F), might be updated to be more useful in Arizona by having a child describe what it feels like to be trapped in a car with a smoker. The child might even address opponents' concerns about the law restricting adults' personal freedoms with comments about her own lack of freedom to do anything about the smoke she is involuntarily exposed to when an adult decides to smoke in the car.

Advocates might also consider training and sharing promotional materials with doctors/pediatricians and firefighters. A research article promoted by the American Academy of Pediatrics recommends that pediatricians discuss the dangers of secondhand smoke within motor vehicles with parents.<sup>63</sup> Fire departments are also a good place to reach parents as they tend to run Arizona Child Safety Seat Inspection programs and clinics.

Because people relate to messages differently, learn in different manners, and are exposed to different forms of media, a comprehensive effort that spans print, radio, television, and the web is suggested.

## Policy Recommendation 5

### ***Assess attitudes and beliefs around e-cigarette usage and harm.***

Some stakeholders recommended including e-cigarettes in a policy prohibiting smoking in vehicles with minors. Available evidence suggests that e-cigarettes may still be harmful and not including e-cigarettes in the ban could cause issues with enforcement.

As more research continues to be published on this issue, it is recommended that advocates conduct a thorough review of health-related studies of e-cigarette usage and the potential secondhand harms in order to determine whether e-cigarettes should indeed be included in the policy.

## Policy Recommendation 6

### ***Monitor the 2014 Governor, Speaker, and Senate President races.***

The individuals in these three key leadership positions are particularly important to passing legislation. The Speaker and President are both responsible for assigning bills to committees and have the power to refrain from doing so if they so choose. A more moderate Speaker and/or President might give the policy a better chance of being assigned to committees, although there is a delicate balance at play even once it is assigned. As Senator Schapira reported, the previous bills he ran on this issue

were either assigned to several committees in an attempt to keep the bills from being heard and passed, or were not given a hearing in the committees to which they were assigned.

Whoever is in these positions for the 2015 legislative session, stakeholders recommend talking with them, or having the bill's sponsor talk with them, to let them know the bill is coming and to gauge their level of support/opposition. It is better to prepare them for the bill than to have them react spontaneously when it is time to assign the bill to committee.

## Policy Recommendation 7

***Enforce the policy as a secondary offense with civil penalties that begin with a warning, impose increasing fines with subsequent violations, and offer participation in a smoking cessation program.***

Although some states have implemented smoking in vehicles with minors bans as a primary offense for which an offending driver can be pulled over without committing any other infractions, local stakeholders recommend that an Arizona smoke-free cars policy should be a secondary offense. The offense should be considered a civil penalty which does not add points to an offending driver's record, and violators should be given a warning for the first offense. Subsequent violations might involve fees ranging anywhere from \$25-\$250 as other states have done, with increasing amounts for each additional offense. Stakeholders also suggested offering participation in a cessation program as a replacement for fines.

**Appendix A**  
**Previous Smoking in Vehicles with Minors**  
**Legislation in Arizona**

### ***HB2729: Smoking in Vehicles with Minors (2007)***

During the Forty-eighth Legislature-First Regular Session in 2007, HB2729 was introduced by House Representative David Schapira (D). Co-sponsors included the following twelve Representatives (most of whom were freshmen in the House at the time):

- Ableser (D)
- Gallardo (D)
- Kirkpatrick (D)
- Lujan (D)
- Saradnik (D)
- Campbell CH (D)
- Clark (R)
- Crandall (R)
- Farley (D)
- Garcia M (D)
- Lopes (D)
- McGuire (D)

The introduced bill read: “A person shall not smoke in a motor vehicle if a person under eighteen years of age is in the motor vehicle. 1<sup>st</sup> violation: civil penalty of at least \$50 for each person under 18 years in the vehicle; subsequent violations: the civil penalty shall be increased by \$50 for each person under the age of 18 in the vehicle”.

The proposed bill underwent a House first read on February 6, 2007 and was assigned to the House Transportation Committee (Chairman: Biggs, R), Health Committee (Chairman: Stump, R) and the Rules Committee (Chairman: Robson, R). The second House read occurred on February 7, 2007; however, the proposed bill was held in the standing committees.

For additional details, visit [http://www.azleg.gov//FormatDocument.asp?inDoc=/legtext/48leg/1r/bills/hb2729o.asp&Session\\_ID=85](http://www.azleg.gov//FormatDocument.asp?inDoc=/legtext/48leg/1r/bills/hb2729o.asp&Session_ID=85).

### ***HB2076: Smoking in Vehicles with Minors (2010)***

HB2076 was introduced solely by Representative Schapira (D) in 2010 during the Forty-ninth Legislature-Second Regular Session. The introduced bill read as, “A person shall not smoke in a motor vehicle if a person under sixteen years of age is in the motor vehicle. A law enforcement officer shall not stop or issue a citation to a person operating a motor vehicle on a highway in this state for a violation of this section unless the law enforcement officer has reason to believe there is another alleged violation of a motor vehicle law of this state. 1<sup>st</sup> violation: civil penalty of \$50 for each person under age 16; for each subsequent violation, the civil penalty shall be \$100 for each person under age 16.”

The bill underwent a House first read on January 12, 2010 and was assigned to the House Transportation & Infrastructure Committee (Chairman: Biggs, R) and the Rules Committee (Chairman: Nichols, R). The second House read occurred on January 13, 2010; however, the proposed bill was held in the standing committees.

For additional details, visit [http://www.azleg.gov/CommitteeInfo.asp?Committee\\_ID=29&Legislature=49&Session\\_ID=93](http://www.azleg.gov/CommitteeInfo.asp?Committee_ID=29&Legislature=49&Session_ID=93).

**Appendix B**  
**Current State Smoking in Vehicles with Minors**  
**Policies**

## Arkansas

### ***Bill/Ordinance Number and Title***

- HB1046: The Arkansas Protection from Secondhand Smoke for Children Act (2006; initial law)
- SB1004: An Act to Raise the Age of Children for whom Smoking is Prohibited in Motor Vehicles; and For Other Purposes (2011; current law; increased age and protections from 2006 version)

### ***Specifics of Legislation***

- HB1046: Upon the effective date of this act, smoking is prohibited in all motor vehicles in which a child who is less than six (6) years of age and who weighs less than sixty pounds (60 lbs.) is restrained in a child passenger safety seat properly secured to the vehicle in accordance with § 27-34-101 et seq.
- SB1004: Smoking is prohibited in any motor vehicle in which a child who is less than fourteen (14) years of age is a passenger.

### ***Age Criteria***

- <14 years of age

### ***Sponsors and Co-Sponsors***

- HB1046: Sen. Smith (D), Reps. Bob Mathis (R), George (D), Saunders (D), Wills (D) and Senator Percy Malone (D)
- SB1004: Sen. Malone (D)

### ***Penalty and Enforcement***

A person who violates this subchapter is guilty of a violation and upon conviction shall be punished by a fine not to exceed twenty-five dollars (\$25). If a person is convicted, pleads guilty, pleads nolo contendere, or forfeits bond for violation of this subchapter, no court costs pursuant to § 16-10-305 or other costs or fee shall be assessed. Any person who proves to the court that he or she has entered into a smoking cessation program may have his or her fine eliminated for a first offense violation of this subchapter.

## California

### ***Bill/Ordinance Number and Title***

SB7: Health & Safety Code § 118948 SB7, Chapter 425; 2007: Article 2.5. Smoking in vehicles with minor passengers.

### ***Specifics of Legislation***

It is unlawful for a person to smoke a pipe, cigar, or cigarette in a motor vehicle, whether in motion or at rest, in which there is a minor. For the purposes of this section, "to smoke" means to have in one's immediate possession a lighted pipe, cigar, or cigarette containing tobacco or any other plant.

### ***Age Criteria***

<18 years of age

### ***Sponsors and Co-Sponsors***

Senator Jenny Oropeza (D)

### ***Penalty and Enforcement***

This bill would make it an infraction punishable by a fine not exceeding \$100 for a person to smoke a pipe, cigar, or cigarette in a motor vehicle, whether in motion or at rest, in which there is a minor. This bill would prohibit a law enforcement officer from stopping a vehicle under the act for the sole purpose of determining whether a driver was in violation of the antismoking provisions imposed by the bill.

## Louisiana

### ***Bill/Ordinance Number and Title***

HB1010: Prohibits smoking in motor vehicles under certain circumstances- Act 838.

### ***Specifics of Legislation***

To enact R.S. 32:300.3, relative to operating motor vehicles; to prohibit the operator or a passenger in a motor vehicle from smoking when children of a certain age are present; to provide relative to penalties for violations; to provide relative to citations issued for violations; to prohibit certain actions by law enforcement officers; and to provide for related matters. It shall be unlawful for the operator or any passenger in a motor vehicle to smoke cigarettes, pipes, or cigars in a motor vehicle, passenger van, or pick-up truck, when a child who is required to be restrained in a rear-facing child safety seat, a forward-facing child safety seat, a booster seat, or a motor vehicle's safety belt as required in Louisiana Revised Statutes section 32:295 is also present in such vehicle, regardless of whether

windows of the motor vehicle are down. For purposes of this Section, the term “smoke” shall mean inhaling, exhaling, burning, or carrying any lighted cigarette, cigar, pipe, weed, plant, or other combustible substance in any manner or in any form.

### ***Age Criteria***

<13 years of age

### ***Sponsors and Co-Sponsors***

Representative Gary Smith, Jr. (D)

### ***Penalty and Enforcement***

Whoever violates the provisions of this Section shall be fined one hundred fifty dollars per offense, or at the discretion of the judge, may be sentenced to no less than twenty-four hours of community service. Probable cause for a violation of this Section shall be based solely upon a law enforcer's clear and unobstructed view of a person smoking as prohibited by this Section. Violation of this Section shall be considered a primary offense, and any law enforcement officer may stop a motor vehicle solely because of a violation of this Section; however, a law enforcement officer may not search or inspect a motor vehicle, its contents, the driver, or a passenger solely because of a violation of this Section. A violation of this Section shall be considered a nonmoving violation, and a citation issued by a law enforcement officer for such a violation shall not be included on the driver's operating record.

## **Maine**

### ***Bill/Ordinance Number and Title***

Title 22: Health and Welfare, Chapter 262: SMOKING Heading; 2008; §1549.  
Smoking in vehicles when minor under 16 years of age is present.

### ***Specifics of Legislation***

Smoking is banned in any car when a person under the age of 16 is present, though no driver may be pulled over or searched solely for violation of this law.; Smoking is prohibited in a motor vehicle by the operator or a passenger when a person who has not attained 16 years of age is present in that motor vehicle, regardless of whether the motor vehicle's windows are open. “Smoking” means inhaling, exhaling, burning or carrying a lighted cigarette, cigar, pipe, weed, plant, regulated narcotic or other combustible substance.

### ***Age Criteria***

<16 years of age

### ***Sponsors and Co-Sponsors***

Representative Brian Duprey (R).

### ***Penalty and Enforcement***

Prohibition on inspection or search. A motor vehicle, the contents of the motor vehicle or the operator or a passenger in the motor vehicle may not be inspected or searched solely because of a violation of this section. A violation of this section is not a moving violation as defined in Title 29-A, section 101, subsection 44. The amendment prohibits searches based solely on a violation of the provision, limits the penalty for violating the provision in the first 12 months of its taking effect to a warning and retains a violation after that time as a civil violation, for which a fine of \$50 may be assessed or a warning given in the discretion of the law enforcement officer.

## Oregon

### ***Bill/Ordinance Number and Title***

SB444

### ***Specifics of Legislation***

A person who commits the offense of smoking in a motor vehicle if the person smokes in a motor vehicle while a person under 18 years of age is in the motor vehicle. As used in this subsection, “smokes” means to inhale, exhale, burn or carry a lighted cigarette, cigar, pipe, weed, plant, regulated narcotic or other combustible substance.

### ***Age Criteria***

<18 years of age

### ***Sponsors and Co-Sponsors***

Sen. Steiner Hayward (D), Reps. Thompson (R), Clem (D), Gleser (D), Greenlick (D), Keny-Guyer (D), Tomei (D), Senators Boquist (R), Burdick (D), Dingfelder (D), Monnes Anderson (D), Monroe (D), Rosenbaum (D), Shields (D)

### ***Penalty and Enforcement***

Notwithstanding ORS 810.410, a police officer may enforce this section only if the police officer has already stopped and detained the driver operating the vehicle for a separate traffic violation or other offense. Smoking in a motor vehicle is a: Class D

traffic violation for a first offense. Class C traffic violation for a second or subsequent offense; \$250 for 1st violation; Class C offense, \$500 for subsequent violations.

## Puerto Rico

### ***Bill/Ordinance Number and Title***

HB2073; PR Laws Ann. 24 § 892(u) the “Act to Regulate Smoking in Certain Public and Private Places”

### ***Specifics of Legislation***

“Section 3.—Smoking is prohibited at all times in the following places

- Private transportation vehicles when there is a minor in a car seat present or when there is a child under the age of thirteen (13).”

### ***Age Criteria***

<13 years of age

### ***Penalty and Enforcement***

“Section 9.—In case of a violation of the provisions of this Act and its regulations, the Secretary of Health may impose administrative fines to the directing authorities of up to the sum of two hundred fifty (250) dollars. These penalties shall apply to both the persons smoking in said areas and the owners or operators of the same. In the case of subsequent violations, he/she may impose fines of up to five hundred (500) dollars for a second violation and of up to two thousand (2,000) dollars for subsequent violations. The administrative fines shall be paid by certified check or money order payable to the Secretary of the Treasury. The amounts collected hereby shall be deposited into the Tobacco Prevention and Control Program, attached to the Department of Health, so that it may have the resources needed to provide citizens with effective smoking prevention and quitting services. Any person who violates subsections (k) and (l) of Section 3 of this Act shall be guilty of a misdemeanor and sanctioned pursuant to the provisions of the Penal Code. The Puerto Rico Police is hereby empowered to intervene with persons who violate this Act.”

## Utah

### ***Bill/Ordinance Number and Title***

HB 13: Protection of Children Riding in Motor Vehicles

### ***Specifics of Legislation***

Smoking is prohibited in a motor vehicle if a child who is 15 years of age or younger is a passenger in the vehicle. As used in this section, “smoking” has the same meaning as defined in Section 26-38-2. Except as provided in Subsection (2) (b), smoking is prohibited in a motor vehicle if a child who is 15 years of age or younger is a passenger in the vehicle. A person may smoke in a motor vehicle while a child who is 15 years of age or younger is a passenger in the vehicle if the person: 1) is operating a convertible or open-body type motor vehicle; and 2) the roof on the convertible or open-body type motor vehicle is in the open-air mode.

### ***Age Criteria***

15 years of age or younger

### ***Sponsors and Co-Sponsors***

Chief Sponsor: Representative Arent (D); Senate Sponsor: Senator Aaron Osmond (R); Co-Sponsors: 15 House Republicans and 7 House Democrats

Reps. Barlow (R), Briscoe (D), E. Brown (R), R. Brown (R), Chavez-Houck (D), Cosgrove (D), Draxler (R), Edwards (R), Eliason (R), Hall (R), King (D), Mciff (R), Menlove (R), Moss (D), Perry (R), Pitcher (R), Poulson (D), Powell (R), Ray (R), Redd (R), Seelig (D), Snow (R)

### ***Penalty and Enforcement***

Violators stopped for other infractions face fines up to \$45, which can be waived if they enroll in a program to quit smoking; A person who violates this section is guilty of an infraction and is subject to a maximum fine of \$45. Until July 1, 2014, a peace officer may not issue a citation to an individual for a violation of this section but shall issue the individual a warning instead. Enforcement of this section by a state or local law enforcement officer shall be only as a secondary action when the vehicle has been detained for another reason or offense. A violation of this section may not be used as a basis for or evidence of child abuse or neglect.

## Vermont

### ***Bill/Ordinance Number and Title***

Act No. 135 (H.217)

An act relating to smoking in lodging establishments, hospitals, and child care facilities, and on state lands.

### ***Specifics of Legislation***

A person shall not possess a lighted tobacco product in a motor vehicle that is occupied by a child required to be properly restrained in a federally approved child passenger restraining system pursuant to subdivision 1258(a)(1) or (2) of this title.

### ***Age Criteria***

< 8 years of age

### ***Sponsors and Co-Sponsors***

Lead sponsor of amendment: Rep. Komline (R); Co-sponsors of amendment: 3 Republicans, 5 Democrats, and 2 Independents; Amendment added to bill sponsored by: Rep. Frank (D); Rep. Batchelor (R); Rep. Krowinski (D); Rep. Mrowicki (D)

### ***Penalty and Enforcement***

Violators shall be subject to a fine of not more than \$100.00. No points shall be assessed for a violation of this section.

**Appendix C**

**Supporters and Opponents of Smoking in Vehicles  
with Minors Policies**

## Policy Champions and Opponents in States/Counties with Existing Smoking in Vehicles with Minors Policies

The policy champions and opponents of the smoking in motor vehicles with minors' legislation have included the following:

### *Arkansas*

- Arkansas Department of Health
- American Cancer Society
- Northwest Arkansas Tobacco Free Coalition
- Coalition for Tobacco Free Arkansas
- Tobacco Control Youth Board
- Opposition: Very minimal opposition and passed fairly easily. There was a tobacco industry lobbyist involved; however, they did not take a strong stance against the proposed legislation.

### *Louisiana*

- Opposition: The Smokers' Rights Group Forest

### *California*

- Action on Smoking and Health
- American Cancer Society
- American Federation of State, County and Municipal
- American Lung Association
- California Alliance for Consumer Protection (CACP)
- California Black Health Network, Inc. (CBHN)
- California Chiropractic Association (CDA)
- County Health Executives Association of California
- Foundation for a Smokefree America
- Glendalians Against Smoker Pollution (GASP)
- Kids Involuntarily Inhaling Secondhand Smoke (KISS)
- S.A.F.E. Smokefree Air for Everyone
- Opposition: none

### *Maine*

- Augusta Lung Cancer Alliance
- Lung Cancer Association
- American Lung Association
- Penobscot Children's Dentistry Associates
- Ignite Kennebec County
- Ignite-Oxford County
- Department for Health and Human Services, Maine Center for Disease Control and Prevention
- Health Policy Partners'
- Maine American Academy of Pediatrics (AAP)

- Maine Coalition on Smoking or Health
- Maine Medical Association
- Travis Monmaney, student at University of Maine Farmington
- Mary E. Davis, Assistant Professor, School of Economics, University of Maine
- Opposition: Audrey Buffington (representing self), Maine Municipal Association
- Neutral: Maine Indoor Air Quality Council

### ***Oregon***

- The American Lung Association
- The American Heart Association
- Oregon Medical Association
- Oregon Pediatric Society (OPS)
- Tobacco-Free Coalition of Oregon, Inc.
- Medical organizations and health professionals
- Individuals and groups impacted by lung issues
- Individuals and groups with child welfare concerns
- Oregon State Sheriffs' Association
- Oregon Association Chiefs of Police
- Oregon Health & Science University
- Opposition: Predominately positive support for the legislation. One individual (representing self) opposed the bill because he thought it should be a primary offense rather than secondary. Other concerns cited that it would disproportionately impact individuals from low socioeconomic statuses.

### ***Utah***

- Utah Tobacco Prevention Task Force
- Coalition for a Tobacco Free Utah
- Utah Chapter of the American Academy of Pediatrics
- Mr. Tyler Adams, local high school student
- Primary Children's Medical Center
- Utah Medical Association
- Opposition: Utah Eagle Forum

### ***Vermont***

- Coalition for a Tobacco Free Vermont (over 80 members including insurance companies; prevention organizations; Heart, Lung and Cancer Associations; hospitals, dentists, pediatricians, nurses, and other medical groups; public health organizations; k-12 schools and higher education institutions; youth groups, and others)
- American Academy of Pediatrics, Vermont Chapter
- Vermont Academy of Family Physicians
- Vermont Medical Society
- American Cancer Society
- American Lung Association
- Free My Ride

**Appendix D**

**Other State and County Approaches to Key Policy Components**

## Age of Child

Among the states and counties in which the legislation has passed, the age of children and youth protected by smoke-free motor vehicle laws has been edging upward, reaching to age 18 in California, Oregon, and in the municipalities Hawaii County, Hawaii, Keyport and West Long Branch, New Jersey, and Rockland County, New York. This can be a challenging issue to resolve and has been the subject of debate in counties and states that have passed these laws. More specifically, there has been uncertainty with regard to how the officer might determine the age of child at the time of enforcement if such a policy only applies to a subsection of minors.

Louisiana resolved this issue by matching the age criteria with the state's current child restraint/seatbelt law, which mandates that children under age 13 be restrained by car seat, booster seat, or safety belt. The prohibition on smoking in motor vehicles was limited to the presence of children who, by statute, are already required to be restrained in vehicles.

For Maine, some lawmakers made the argument that the age cut-off should reflect the legal driving age, which is set at age 16, while others contested that youth between the ages of 16 and 18 could voice their opposition to parental smoking in motor vehicles. A compromise resulted in amending the age criteria in the bill from 18 to 16, the age at which youth can legally drive in Maine.

In California, champions of the legislation found it challenging to develop a reasonable argument for protecting minors based on an arbitrary age cut-off. Since there is a lack of empirical evidence to suggest that children are less susceptible to health risks from SHS exposure upon reaching a particular age, this issue was solved by applying the law to protect all minors under age 18, the age at which Californians can legally possess and smoke tobacco.

California's legislature took a position which observed that all children and youth, no matter what their age, are at risk when exposed to tobacco smoke in vehicles, and does not make the assumption that minors of a certain age, for example 14 or 16, can prevent adults from smoking simply by requesting them to not do so. Protecting all minors under the legal age for tobacco use and possession is presumed to afford a clear-cut enforcement mechanism for law enforcement officers, one that is compatible with their duty to enforce laws prohibiting youth access to tobacco.

## Classification of Offense: Primary or Secondary

Primary vs. secondary enforcement has been a key factor in similar policy initiatives to ban tobacco use in motor vehicles with minors. A state's decision about whether to classify an offense as primary or secondary frequently reflects the way comparable types of laws within the jurisdiction are structured. For example, if a state treats seatbelt laws, restrictions on use of cell phones, or child restraint laws

as primary offenses, often a law regulating smoking in motor vehicles with minors will be similarly categorized.

Lawmakers and police use these terms to signify traffic offenses for which drivers can be stopped and cited. To enact **primary enforcement** means a law enforcement officer may stop a motor vehicle solely because of the violation of smoking in a motor vehicle with a minor. For those counties and states that have implemented the policy as a primary enforcement, many have included a clause in which law enforcement officers may not stop or inspect a motor vehicle, its contents, the driver, or a passenger solely because of a violation of the provision. On the other hand, with **secondary enforcement**, law enforcement officers need another reason to pull over the drivers, such as speeding.

Questions related to whether or not to categorize a violation as a primary or secondary offense can potentially generate concerns from community members about the likelihood for racial- or bias-based profiling under either scenario. Profiling transpires when a law enforcement officer who engages in racial bias or other bias (ethnicity, gender, etc.) inappropriately detains a driver, using suspicion of a crime as a pretext for a traffic stop. Given that law enforcement officers do not have the authority to stop a driver simply for a secondary offense, occurrences of profiling may be less likely when a violation of a law (such as one developed principally to protect children's health) is categorized as a secondary offense.

## Fines and Penalties

Fines in the seven states that have enacted smoke-free policies in motor vehicles with minors range from \$25 in Arkansas, in which a fine for the offense is waived if the violator enters a smoking cessation program, to fines of up to \$250, or at least 24 hours of community service in Louisiana. The Commonwealth of Puerto Rico imposes the highest fine among U.S. jurisdictions at \$250.

**Appendix E**  
**Public Opinion Poll Results**  
**(Behavior Research Center, Inc.)**

Attached as Separate Document

# **Appendix F**

## **Promotional Tools**

## Resources

### ***Web Links:***

California Tobacco Control Program video regarding smoking in motor vehicles with minors: <http://vimeo.com/1513382>

### ***Attached as separate documents:***

1. Arkansas Smoke-Free Cars Policy fact card
2. Arkansas Smoke-Free Cars Policy print ad
3. Arkansas Smoke-Free Cars Policy poster
4. Arkansas Smoke-Free Cars Policy PowerPoint presentation
5. Smoke-Free Cars California sign

## References/End Notes

---

- <sup>1</sup> 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).
- <sup>2</sup> Hai, V. N. (2013). Do smoke-free car laws work? Evidence from a quasi-experiment. *Journal of Health Economics*, 32, 138-148.
- <sup>3</sup> 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.
- <sup>4</sup> 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>
- <sup>5</sup> U.S. Environmental Protection Agency (n.d.). *Children's environmental health disparities: Hispanic and Latino American children and secondhand smoke* (No. 100F08032) [Fact sheet]. Retrieved from [http://yosemite.epa.gov/ochnp/ochpweb.nsf/content/HD\\_Hispanic\\_Smoke.htm/\\$File/HD\\_Hispanic\\_Smoke.pdf](http://yosemite.epa.gov/ochnp/ochpweb.nsf/content/HD_Hispanic_Smoke.htm/$File/HD_Hispanic_Smoke.pdf)
- <sup>6</sup> 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).
- <sup>7</sup> Sendzik, T., Fong, G. T., Travers, M. J., & Hyland, A. (2008).
- <sup>8</sup> 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.
- <sup>9</sup> 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.
- <sup>10</sup> <http://www.stateoftheair.org/2014/states/arizona/>
- <sup>11</sup> 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>
- <sup>12</sup> 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
- <sup>13</sup> Based on 2012 U.S. Census Estimates for Arizona population under 18 years of age. <http://quickfacts.census.gov/qfd/states/04000.html>
- <sup>14</sup> 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>
- <sup>15</sup> Winickoff, J. P., Friebely, J., Tanski, S. E., Sherrod, C., Matt, G. E., Hovell, M. F., & McMillen, R. C. (2009). Beliefs about the health effects of “thirdhand” smoke and home smoking bans. *Pediatrics*, 123(1), e74-e79.
- <sup>16</sup> Lai, H. K., Ho, S. Y., Wang, M. P., & Lam, T.H. Secondhand smoke and respiratory symptoms among adolescent current smokers. *Pediatrics*, 124(5), 1306-1310.
- <sup>17</sup> Kum-Nji, P., Meloy, L., & Herrod, H. G. (2006). Environmental tobacco smoke exposure: Prevalence and mechanisms to causation of infections in children. *Pediatrics*, 117(5), 1745-1754.
- <sup>18</sup> 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).
- <sup>19</sup> 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).
- <sup>20</sup> 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>

- 
- <sup>21</sup> Centers for Disease Control and Prevention. (2008). *Smoking-attributable mortality, years of potential life lost, and productivity losses--United States, 2000-2004*. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm>
- <sup>22</sup> Centers for Disease Control and Prevention. (2013). *Cigarette smoking – United States, 2006-2008 and 2009-2010*. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a14.htm>
- <sup>23</sup> U.S. Environmental Protection Agency (n.d.). *Children’s environmental health disparities: Hispanic and Latino American children and secondhand smoke* (No. 100F08032) [Fact sheet]. Retrieved from [http://yosemite.epa.gov/oehp/ochpweb.nsf/content/HD\\_Hispanic\\_Smoke.htm/\\$File/HD\\_Hispanic\\_Smoke.pdf](http://yosemite.epa.gov/oehp/ochpweb.nsf/content/HD_Hispanic_Smoke.htm/$File/HD_Hispanic_Smoke.pdf)
- <sup>24</sup> 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).
- <sup>25</sup> Ong, M.K., & Glantz, S.A. (2004). Cardiovascular health and economic effects of smoke-free workplaces. *American Journal of Medicine*, *117*, 32-38. doi:10.1016/j.amjmed.2004.02.029
- <sup>26</sup> Barnoya, J., & Glantz, S. A. (2005). Cardiovascular effects of secondhand smoke: Nearly as large as smoking. *Circulation*, *111*, 2684-2698.
- <sup>27</sup> Kallio, K., Jokinen, E., Saarinen, M., Hamalainen, M., Volanen, I., Kaitosaari, T., ... Simell, O. (2010). Arterial Intima-Media Thickness, Endothelial Function, and Apolipoproteins in adolescents frequently exposed to tobacco smoke. *Circulation: Cardiovascular Quality and Outcomes*, *3*(2), 196-203.
- <sup>28</sup> 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).
- <sup>29</sup> 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.
- <sup>30</sup> Hai, V. N. (2013). Do smoke-free car laws work? Evidence from a quasi-experiment. *Journal of Health Economics*, *32*, 138-148.
- <sup>31</sup> Anderson, H. R., & Cook, D. G. (1997). Passive smoking and sudden infant death syndrome: review of the epidemiological evidence. *Thorax*, *52*(11), 1003-1009.
- <sup>32</sup> 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.
- <sup>33</sup> Kum-Nji, P., Meloy, L., & Herrod, H. G. (2006).
- <sup>34</sup> Hai, V. N. (2013).
- <sup>35</sup> Sly, P. D., Deverell, M., Kusel, M. M., & Holt, P. G. (2007). Exposure to environmental tobacco smoke in cars increases the risk of persistent wheeze in adolescents. *Medical Journal of Australia*, *186*(6), 322-322.
- <sup>36</sup> 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).
- <sup>37</sup> Hai, V. N. (2013).
- <sup>38</sup> Lee, D. J., Dietz, N. A., Arheart, K. L., Wilkinson, J. D., Clark III, J. D., & Caban-Martinez, A. J. (2008). Respiratory effects of secondhand smoke exposure among young adults residing in a “clean” indoor air state. *Journal of Community Health*, *33*(3), 117-125.
- <sup>39</sup> Filippini, G., Maisonneuve, P., McCredie, M., Peris-Bonet, R., Modan, B., Preston-Martin, S., ... & Boyle, P. (2002). Relation of childhood brain tumors to exposure of parents and children to tobacco smoke: The search international case-control study. *International Journal of Cancer*, *100*(2), 206-213.
- <sup>40</sup> Miller, M. D., Marty, M. A., Broadwin, R., Johnson, K. C., Salmon, A. G., Winder, B., & Steinmaus, C. (2007). The association between exposure to environmental tobacco smoke and breast cancer: a review by the California Environmental Protection Agency. *Preventive Medicine*, *44*(2), 93-106.
- <sup>41</sup> Bandiera, F. C., Richardson, A. K., Lee, D. J., He, J. P., & Merikangas, K. R. (2011). Secondhand smoke exposure and mental health among children and adolescents. *Archives of Pediatrics & Adolescent Medicine*, *165*(4), 332-338.
- <sup>42</sup> Hyland, A., Higbee, C., Borland, R., Travers, M., Hastings, G., Fong, G. T., & Cummings, K. M. (2009). Attitudes and beliefs about secondhand smoke and smoke-free policies in four countries: findings from the International Tobacco Control Four Country Survey. *Nicotine & Tobacco Research*, *11*(6), 642-649.
- <sup>43</sup> Sendzik, T., Fong, G. T., Travers, M. J., & Hyland, A. (2008). An experimental investigation of tobacco smoke pollution in cars. *Nicotine & Tobacco Research*, *11*(6), 627-634.

- 
- <sup>44</sup> Public Health Law Center. (2010). *Kids, Cars, and Cigarettes: A Policy Overview*. Retrieved from [http://publichealthlawcenter.org/sites/default/files/resources/phlc-fs-kidscarssmoke-2010\\_0.pdf](http://publichealthlawcenter.org/sites/default/files/resources/phlc-fs-kidscarssmoke-2010_0.pdf)
- <sup>45</sup> Sendzik, T., Fong, G. T., Travers, M. J., & Hyland, A. (2008).
- <sup>46</sup> Norman, G.J., Ribisl, K.M., Howard-Pitney, B., & Howard, K.A. (1999). Smoking bans in the home and car: Do those who really need them have them? *Preventive Medicine*, *29*, 582-589.
- <sup>47</sup> Kegler, M.C., Escoffery, C., & Butler, S. (2008). A qualitative study on establishing and enforcing smoking rules in family cars. *Nicotine & Tobacco Research*, *10*(3), 493-497.
- <sup>48</sup> Jones, M. R., Navas-Acien, A., Yuan, J., & Breyse, P. N. (2009). Secondhand tobacco smoke concentrations in motor vehicles: a pilot study. *Tobacco Control*, *18*(5), 399-404.
- <sup>49</sup> Pawson, R., Wong, G., & Owen, L. (2011). Myths, facts and conditional truths: What is the evidence on the risks associated with smoking in cars carrying children?. *Canadian Medical Association Journal*, *183*(10), E680-E684.
- <sup>50</sup> Semple, S., Apsley, A., Galea, K. S., MacCalman, L., Friel, B., & Snelgrove, V. (2012). 'Secondhand smoke in cars: assessing children's potential exposure during typical journey conditions. *Tobacco Control*, *21*(6), 578-583.
- <sup>51</sup> [https://www.health.ny.gov/environmental/indoors/air/pmq\\_a.htm](https://www.health.ny.gov/environmental/indoors/air/pmq_a.htm)
- <sup>52</sup> [https://www.health.ny.gov/environmental/indoors/air/pmq\\_a.htm](https://www.health.ny.gov/environmental/indoors/air/pmq_a.htm)
- <sup>53</sup> Sohn, H., & Lee, Kiyong. Impact of smoking on in-vehicle fine particle exposure during driving. *Atmospheric Environment*, *44*, 3465-3468.
- <sup>54</sup> 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.
- <sup>55</sup> Sleiman, M., Gundel, L. A., Pankow, J. F., Jacob, P., Singer, B. C., & Destailats, H. (2010).
- <sup>56</sup> 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>
- <sup>57</sup> 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
- <sup>58</sup> [http://www.azsos.gov/public\\_services/Title\\_06/6-05.htm#Article\\_74](http://www.azsos.gov/public_services/Title_06/6-05.htm#Article_74)
- <sup>59</sup> <http://www.azleg.gov/FormatDocument.asp?inDoc=/ars/28/00701.htm&Title=28&DocType=ARS>
- <sup>60</sup> <http://www.azcentral.com/story/news/arizona/2014/04/26/distracted-drivers-getting-dps-attention/8190109/>
- <sup>61</sup> <http://mottnpch.org/reports-surveys/broad-public-support-banning-smoking-vehicles-kids-present>
- <sup>62</sup> [http://www.azsos.gov/public\\_services/title\\_09/9-02.htm](http://www.azsos.gov/public_services/title_09/9-02.htm)
- <sup>63</sup> <http://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/Parents-Who-Smoke-Often-Expose-Children-to-Tobacco-Smoke-in-Their-Cars.aspx>