

Title: How did it happen? Examining U.S. state bans of smoking in cars with children using key informant interviews

Abstract

The objective of this study was to investigate one example of how a legislative ban of a personal action to improve the public's health was successfully enacted. Examining how a ban of smoking in cars when children are present can increase our understanding of important considerations and helpful strategies for proponents of future public health legislation. We began this research by reviewing newsprint articles, legal documents, and the academic literature related to this issue. The main research method utilized was conducting key informant interviews with 3 legislative sponsors of the bill and 2 legislative staffers who were directly involved in this legislation around the country. We found commonalities and some dissimilarity among the four states in their motives that inspired the bill, strategies for building support and reacting to opposition, and other topics that could inform future public health legislation at the U.S. state level.

Introduction

The cultural acceptance of smoking in America has shifted remarkably in the past few decades. Whereas people used to smoke freely without anyone perceiving a problem, a strong public health movement has significantly changed people's attitude towards smoking and the rates of smoking has decreased.¹ The concerns for the risks to smokers and as well as

¹Saad, L. July 2008. U.S. Smoking Rate Still Coming Down. Gallup. Available at <http://www.gallup.com/poll/109048/us-smoking-rate-still-coming-down.aspx#1>.

nonsmokers motivate this issue because inhaling secondhand smoke is about 4 times more toxic than mainstream smoke.² Educational initiatives and increased public awareness of the health effects may account for much of this decrease in smoking; and additionally many jurisdictions have outlawed smoking in public places such as bars and restaurants, large office buildings, and schools, which helps to legitimize this issue and draw attention to the severity of smoking and secondhand smoke.

While people might oppose these laws for other reasons, the legal authority for jurisdiction over public spaces is not challenged. However, because some policy makers recognize that these laws neglect the large part of this problem that occurs in nonpublic spaces, some jurisdictions are bringing smoking bans into people's private property.

In the past 5 years, Arkansas, Louisiana, California, Maine, and Puerto Rico have enacted legislation to ban smoking in cars with children, an especially vulnerable population. This law, like many other public health laws, draws opposition from those who want the right to act freely in their private environments. Some believe that the personal freedoms stated in the constitution mean the government should not interfere in people's personal matters; but others believe that the government's responsibility to promote the welfare of the population, which is also stated in the constitution, means that the government should intervene when the interest of the public's health is at risk. Examples of government efforts to regulate personal actions in private homes and cars include requiring the use of safety belts in cars and outlawing child labor or abuse.

Our research aims to discover how states have successfully enacted a public health law that regulates conduct in private spaces, banning smoking in cars while children are present. We investigated the legislative process, motivations for the bills, facilitators and challenges, and how

² Jarvie, JA. & Malone, RE. December 2008. Children's Secondhand Smoke Exposure in Private Homes and Cars: An Ethical Analysis. *American Journal of Public Health*. 98;12: 2140-2145.

supporters promoted the bills. This paper presents information from key informants on their firsthand experiences during this process, which can inform future legislation related to tobacco as well as a broader range of public health initiatives. Each bill originated and progressed in slightly different ways and each contains a slightly different mandate, so comparing their experiences can depict an important story.

Scientific evidence base for this policy

Why focus on children?

While children's bodies and organs are still developing they remain particularly susceptible to respiratory complications and other physiological harms. Their bodies are smaller thus the concentration of contaminants is higher than in adults. As reported by the US Surgeon General, children aged 3-11 years have cotinine levels more than twice as high as nonsmoking adults (cotinine is a biomarker for secondhand smoke exposure).³ This same report estimated that 22 million children aged 3-11 and 18 million youth aged 12-19 are exposed to secondhand smoke.³ Some of the negative health effects of secondhand smoke exposure in children include sudden infant death syndrome, otitis media, bronchitis, asthma, pneumonia, slower lung development, and higher risk of lower respiratory infections.² Secondhand smoke exposure among US children costs approximately \$4.6 billion per year in direct medical costs.² A study of households with symptomatic asthmatic children indicated that even when a smoker lived in the home only 49% of households voluntarily instituted a smoking ban in the car.⁴ This demonstrates that many adults will not take voluntary action to protect their children from this exposure.

³ U.S. Department of Health and Human Services, Office of the Surgeon General. January 2007. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. U.S. Department of Health and Human Services.

⁴ Halterman JS, Fagnano M, Conn KM, Szilagyi PG. (Mar-Apr. 2006). Do parents of urban children with persistent asthma ban smoking in their homes and cars? *Ambulatory Pediatrics*. 6;2: 115-119.

Why focus on cars?

The evidence supporting a smoking ban in cars with children mostly involves the high toxicity of smoke in the condensed, enclosed space of a car as their reasons. Some studies show that the concentration of toxins in a smoke-filled car is 23 times greater than that of a smoky bar.⁵ Thus if society has accepted and instituted smoking bans in restaurants or bars, some would say that a private car should be regulated too because of its greater risk. Even if smokers recognize that smoking in an enclosed space can cause increased risk, they will often open the windows believing that this decreases the risk making it more similar to smoking anywhere else. However, researchers at Stanford University found that even with open windows, smoke particle concentrations were higher in cars than the levels measured in California bars during the mid-1990s before the state banned smoking in taverns.⁶ Sometimes referred to as “thirdhand smoke,” smokers cause additional harm even if they do not smoke in the presence of children because toxins are absorbed into the upholstery and other surfaces, exposing people to their harmful effects for days after.⁷

Methods

Background research

We searched for local and national newsprint coverage reporting on the Arkansas, California, Louisiana, and Maine bills to provide a picture of the climate surrounding the issue, a sense of people’s reaction to the bill, and the specific people or organizations involved. We excluded Puerto Rico for the purposes of our analysis. Next we tracked the legislative history in

⁵ Desapriya, E., Turcotte, K., Subzwari, S., & Pike, I. July 2009. Smoking inside vehicles should be banned globally. *American Journal of Public Health*, 99;7: 1158-1159.

⁶ 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; doi:10.1038/sj.jes.7500601; published online 18 July 2007.

⁷ Matt, GE, Quintana, PJE, Zakarian, JM, et al. (2011) “When smokers move out and non-smokers move in: residential thirdhand smoke pollution and exposure.” *Tobacco Control*. 20: e1 originally published online October 30, 2010, doi: 10.1136/tc.2010.037382.

each state using LexisNexis State Capital. The bill tracking report showed the time interval between the introduction of the bill and eventual signing by the governor. This gave an indication whether the legislation passed easily through or whether delays occurred along the way. We looked at the language in the bill text to compare subsequent versions. Changes in the specific language of an amendment often resulted from negotiation or compromise among interest groups. Increasing the understanding of the facilitators and challenges that impacted the legislative timeline in states that successfully passed this bill could help inform related initiatives in other states.

Designing the qualitative key informant interviews

The main method utilized in this study was qualitative, open-ended interviews with key informants. We intended to interview the sponsor of the bill in each state. The sponsors could provide a firsthand perspective with more detail of the surrounding circumstances, the reasoning behind their actions and the actions of their peers if they knew, and an explanation of underlying connections between the sequences of events noted in the published material. In interpreting the interviews we recognized that the respondents' role as a political figure or legislative staffer would impact the scope of their responses.

We designed the interviews with open-ended questions that guided the interviewee in explaining the facilitators, challenges, and strategies for success, while also allowing the interviewee appropriate time to share significant or unique aspects that we had not anticipated. Some of these questions were based on our own understanding of the field of public health legislation, a review of the scientific evidence, and our background research of the legal documents and newsprint articles. The complete interview guide can be found in Appendix A.

Conducting the interviews

Contact was first made with each potential interviewee through an email request. Knowing the time constraints of legislators, we offered the opportunity for them to refer us to a staff person knowledgeable about this issue; however, all three of the available sponsors of the bill were willing to personally accept the interview. The exception was California where the sponsor of the bill had died a few months prior to this research. In California we were able to speak with the chief of staff for the principal coauthor of the bill and the communications director for the deceased sponsor. Verbal informed consent was obtained at the start of each interview. Each interview lasted about 30-45 minutes. The interviews were not recorded. Instead the interviewer took detailed notes during the interview. The interviews were conducted between February 17, 2011 and April 8, 2011.

Coding the interviews

The interviewer coded each interview for themes of interest that appeared in the responses. Beginning with 40 very specific codes, we then combined these into 8 more manageable categories for the purposes of identifying themes and organizing the results. We made a list of each code and what each interviewee said about that code, which allowed us to easily compare the responses. This formed the basis for our discussion and conclusions.

Results

Table 1 summarizes the existing U.S. state laws that ban smoking in cars with children.

Table 1

	Date of bill enactment	Age cutoff for “children”	Punishment for violating this bill	Enforcement
Arkansas	4/10/06	Less than 6 years old and weighs less than 60 lbs., who is required to be restrained in a car	A fine not exceeding \$25, though the fine can be eliminated if the violator enrolls in a smoking cessation	Primary

		seat *An amendment passed to increase this limit to children less than 14 years old, effective on 7/27/11.	program	
Louisiana	7/5/06	Less than 13 years old	A fine of \$150, or at the discretion of the judge, a sentence of no less than 24 hours of community service A non-moving violation citation issued	Primary
California	10/10/07	Less than 18 years old	A fine not exceeding \$100	Secondary
Maine	4/10/08	Less than 16 years old	From 9/1/08 – 8/31/09, a warning is issued. Beginning on 9/1/09, a \$50 fine, or at the discretion of the police officer, a warning is issued. This is not a moving violation.	Secondary

After coding the interviews, this is what was said for each topic of interest:

Motives for introducing the bill

Protect children (Health): All of the interviewees referred to protecting children, the fact that they are trapped in the vehicle and cannot stand up for themselves as motivation for this bill. They used words like “horrible,” “trapped,” “poison,” or “abuse” in describing their motivation. This bill was seen as protecting helpless children because they were being hurt by the actions of adults.

Educate adults: Legislators believed this harmful behavior occurred mostly because parents were unaware of the harm they were causing. They said education was one motive for the bill and referred back to this motive when explaining other aspects of the legislative process,

like deciding the appropriate punishment for a violation. Two legislators took a slightly more blame-oriented approach, with one saying he wishes adults would be more concerned with the health of children (than their addiction), and the other commenting that most adults are “good and responsible, but not all are.”

Science, Research, (Health): Every interviewee acknowledged the impact of increased scientific evidence or public health as a motivator for this bill. They mentioned results from specific studies, such as higher particle concentration in the condensed space of cars (two interviewees), the harmful health effects for children, or the evidence that smoking is just as harmful with the windows open.

Personal characteristics/experiences of the legislator: A representative from each state mentioned specific personal circumstances of the sponsor of the bill as additional motivation. In Arkansas, the bill sponsor was a smoker at the time and he had grandchildren. In Maine, the sponsor’s parents were smokers and now the sponsor has asthma. He also owns childcare centers and was struck by the effects on the children there. In California, the bill sponsor was a liver cancer survivor and so she was very interested in cancer prevention. In Louisiana, the sponsor recalled being stopped at stoplights and seeing children exposed to secondhand smoke in other cars, he thought, “Someone has to speak up.”

Support for the bill

Interviewees generally reported high levels of constituent and legislator support for banning smoking in cars while children were present. Most felt that constituents and colleagues believed the bill was “common sense.” One reported that it “is just a good idea,” and the Maine sponsor said it was “one of the easiest things he’s ever done.” Two state representatives referred to overwhelming votes in both houses of the legislature; and another said that, “By the end even

some republicans supported the bill.” Even in Arkansas where there were only 5 days between when the bill was introduced and when the governor signed it, there were 32 sponsors of this bill. A California representative specifically spoke about support from police, nurses, and people in similar professions; and the Maine sponsor acknowledged the influential vocal support of a pediatric dentist whom he called the “brains behind the bill.” To measure and build public support, the Louisiana sponsor personally went out in the community and he witnessed the constituents’ interest in this issue.

Why this bill was acceptable but similar legislation is not

Although the interviewer did not ask them to compare this ban to other similar legislation, interviewees from every state explained at some point why this bill was promoted over other possible legislation. All of interviewees spoke about the confined, condensed space of a car that makes it more harmful than other environments. Three specifically stated that the sponsor would never target smoking in private homes. The sponsor from Maine pointed out that he is generally libertarian and would not want to interfere, but to protect children is an exception.

Opposition and the response to opposition

Generally the legislators commented that there was not a lot of opposition. However, some opponents used terms like “nanny bill,” claiming that adults have a right to do as they please in their private lives. Others asked “when’s enough enough?” referring, in their view, to the government’s infringement on rights. The legislators’ response in Arkansas and Louisiana was to label smoking in cars with children as “child abuse,” something for which many other laws currently exist. In Maine the response was that children’s rights should trump parents’ rights to smoke. California was unique because of the tobacco industry’s stronger presence. Both Californian representatives spoke about this influence. During hearings the tobacco

lobbyists did not testify but “they stood in the back of the room to remind legislators where the money comes from.”

What affected the timing of this bill?

Legislative or political circumstances impacting the timing of this bill: In Arkansas, the first state to pass this bill, the opportunity to combat smoking in cars with children arose because there was a special session taking place where the governor was considering legislation regarding smoking in the workplace. Since the sponsor of the smoking in cars with children bill was about to finish his term in office, he quickly utilized this opportunity to “piggyback off” the special session. The Louisiana sponsor mentioned seeing a similar bill in Arkansas and wanting Louisiana to be on the forefront of a children’s health issue (which he said did not occur often). In Maine, the sponsor said that having a similar law enacted at the local level (in Bangor City, ME) inspired him to introduce the bill at the state level. He also mentioned that he felt the foundation for this bill was in place based on an already existing law banning foster parents from smoking in their homes. In California, a similar bill had been previously introduced for the first time in 2004, and had been reintroduced and failed multiple times. One interviewee’s hypothesis for the multiple failures in California is that the tobacco companies were less distracted by other issues (such as a large tobacco tax) prior to 2007 and could spend more energy opposing this bill. Eventually this bill was successful, the interviewee reported, because there was the “right mix of people” in the legislature and because the sponsor and coauthor were “exceptional leaders.” He mentioned that the senate was “more collegial, older, and that the senate has half as many members (40) as the assembly (80)” so starting in the senate helped to get the ball rolling by building up examples of support. The sponsors from Arkansas and Maine also referenced supportive compositions in the legislatures as a facilitator to the successful enactment of this bill.

Shifts in America's feelings about secondhand smoke: Another factor interviewees spoke about influencing the timing of this bill was the rise in educational campaigns, the resulting shift in general opinion, and a general shift in the U.S. towards more preventive measures. This meant that the public was more ready for these bills. The Maine sponsor said he thinks “caregivers know the dangers more, and thus he thinks the [educational] signs are working.” The Louisiana sponsor commented that “there is more current attention being paid to child welfare and preventive initiatives,” and that he felt “this current movement towards protecting children was starting to percolate around the time of this bill.” As another example, in California in 2006, the state had declared secondhand smoke to be a toxic substance and this became a big arguing point for supporters of this ban. However, regarding public awareness education, the struggling California budget at this time delayed the bill because they had to amend the original law to remove a requirement of the Department of Health to run a public awareness campaign.

Sponsor's strategies to move the bill through the legislatures

Different strategies in each state surfaced throughout the interviews. The Louisiana sponsor spoke about building support by going out into the community to talk to the people, as he does with many issues. After the bill was introduced, during the subsequent lag time, he worked his way through the community, the committee members, and then the members of the floor. His selling points were that this bill would improve health and save money in the long term. The Maine sponsor took the opposite approach. His strategy was to let the bill sell itself, and that “sometimes it's better not to talk it up if you don't have to.” He also said that his own position as a Republican helped garner Republican votes, and that having a public health spokesperson, a pediatric dentist, helped as well.

The Arkansas sponsor chose to move the bill through as fast as possible rather than taking time to build support because there was a special legislative session going on at the time, and the sponsor was leaving office soon. There were only 5 days between when the bill was introduced and when the governor signed it. This quick timeline did not leave room for the opposition to mobilize, and the sponsor built support by word of mouth and an impassioned plea on the house floor.

The California representatives spoke similarly about building support. As things progressed legislatively they began scheduling preliminary votes to motivate and encourage colleagues. One legislator spoke individually with hesitant members (not just addressing a whole committee); he asked to hear their specific issues and addressed those concerns. Uniquely, California had to strategize their handling of the tobacco industry, and one representative explained that it is best to do something like this on a local level because the tobacco industry concentrates on higher level policy while health groups have more grassroots, lower level influence.

Points of compromise and negotiation

When asked if there were points in the legislative process where discussions between supporters and opponents resulted in negotiation or compromise, the 3 topics that came up were: a lowering of the age cut off for what constitutes a child, a decrease in the punishment for a violation, and/or a change from primary to secondary enforcement of the policy.

Enforcement

Age cutoff: Each state's law had a different age limit applicable to children who were covered by this legislation. Nevertheless, each state's rationale was based on the developmental process of a child and the feasibility of enforcement. They focused on when children begin to

possess more autonomy and can speak up for themselves, though the states concluding differently on when this happens. They also focused on ease of enforcement such that in Arkansas they chose the age limit when children should be in carseats and in Louisiana they chose the age limit where children should be in seatbelts. Since law enforcement were already primed in their training to look for this, enforcing a smoking ban with these age cutoffs could be easier.

Punishment: Representatives from three states emphasized that fines for violating this law were kept low because the intention of the law was to educate and increase awareness, and because the perception by most legislators was that the majority of violators of this ban are of a lower income and they did not want the fines to cause undue hardship. They only wanted the fines to be enough to draw people's attention and send a message, and to make it worthwhile to enforce. Interestingly Maine and Louisiana allowed flexibility in punishment, left to the discretion of police officers in Maine and judges in Louisiana.

Discussion

Conclusions regarding the main research question: Based on this example, what are important considerations for future public health legislation? The aspects that seemed most important to the legislative progression in Arkansas, Louisiana, California, and Maine as they worked to enact a ban of smoking in cars when children were present were: The current level of support from the general public and current legislators, individual characteristics to inspire a specific legislator to lead with sponsorship of the bill, and useful strategies to approach opposition including being open to compromise and negotiation.

When the potential need for compromise arises, it is important for proponents of future public health legislation to evaluate the breaking point of their policy initiative. With the

example of smoking in cars with children, when legislators decided what age limit would accompany the bill they weighed the predicted public health benefit verses the predicted backlash from their opposition. A review of the interview responses depicts potential criteria for setting this cutoff including the assumed independence of a child and the ease of enforcement for various ages. Another way to think about a limit for a potential compromise would be to conduct a threshold analysis to evaluate the predicted costs and effects of this policy and determine a threshold for the effect needed to make this policy cost-effective or cost-saving.

Considerations regarding the methods used: Our research plan was successful in capturing information about how these bills were successful, what facilitated their success and what hindrances were encountered. The scope of the interview guide with open-ended questions allowed us to capture essential components of the legislative process by providing specific prompts and allowing the interviewee to expand on relevant points. The prompts reflected aspects of the process we expected to have influence. In some cases, such as our inquiries regarding the influence of “emerging science on secondhand smoke” and “negotiation or modification of the original legislation in response to opposition,” we were correct and the interviewees validated our expectations. In other cases we were incorrect. For example, we anticipated a larger role of local advocacy groups and the media; though the legislators did not feel these potential influences had a large impact, and therefore they were not included in our analysis.

We chose to analyze the complete interviews to gain a broad prospective of potential influences. Another viable method of answering this research question might be to specifically focus the analysis on the interviewee’s response to the final question, “Looking at the whole picture, what do you think were the key facilitators to this bill passing at this time?” By the time

they were asked this question they had been thinking about this issue for 30-45 minutes, and thus their memory was sufficiently primed to give an answer that was as accurate as possible. This could tell an important story regarding the topmost influential circumstances to successfully passing this type of legislation.

A potential critic of our methods might ask why two different coders were not used to provide quality insurance in coding the interview responses. Since the interviews were not recorded and the handwritten notes might be indecipherable to an outside reader; the accuracy of the coding process was increased by having the interviewer, who was familiar with the material and could remember the way it was presented, complete the coding. In addition, a measure of quality assurance existed because a week had passed between the first coding with 40 codes and the second iteration of coding with the 8 condensed codes. This meant that when the interviewer coded the material for the second time, it was discernable if the code was from a different category than the first, and in that case careful attention went to deciding which code the material should be given.

Feasibility of future work in this area using key informant interviews: The experience in conducting interviews for this study show that future research with a similar research plan would be easily feasible. The legislators responded promptly and were more than willing to support the research and donate their time to answering questions.

Future directions for work

Since these bans are relatively new, it is important to monitor and evaluate their effectiveness. If the evaluation shows they have been effective, this could be used in motivating similar legislation in other jurisdictions. It would be helpful to know if the bans have been enforced; or if they have not been enforced but have deterred people from smoking in their cars

with children just by calling attention to the issue and threatening punishment. Another evaluation measure could look at cotinine levels in a typical group of children to see if children's overall exposure to secondhand smoke had decreased. A change in the overall exposure rate would be partially dependent on the exposure rate in cars, and thus if other factors stayed relatively the same, it is likely that a change in overall exposure would depict a change in the exposure levels in private cars.

It would also be helpful to complete more evaluations of the general public's attitude regarding this policy. This should be done on the local level in jurisdictions that are considering enacting the policy. Representatives from all four states said, in part, their bill was successful because of the support of public opinion. Thus, assessing the level of this support in a more systematic and comprehensive way than the legislator taking some time to talk with constituents, would benefit future attempts to pass similar legislation.

Another possible direction for future research would be to conduct similar key informant interviews with legislators from states who have tried to enact this bill, yet thus far the bill has failed. It would be helpful to hear their firsthand perspective of what challenges the bill's enactment. Examining the factors that have caused the bill to be unsuccessful in some states compared to the factors that have allowed it to pass in others could provide important insight to improve our understanding of public health legislation.

Note regarding human subjects protection

This project was deemed to be not research about human subjects by the Committee on Human Subjects Research at Johns Hopkins Bloomberg School of Public Health.

Appendix A

Interview Guide for Legislators of Legislative Staff

- What was the motive or inspiration for introducing this bill? Why did this specific bill garner people's attention?
Was the bill influenced by the emerging science on secondhand smoke?
- What influenced the timing of this bill, the decision of when to introduce it?
Were there similar or related bills previously introduced in this state? What were the outcomes of those bills? Why do you think these outcomes occurred?
- Can you talk about the process of building support for this bill?
Did your office collaborate with any outside groups or stakeholders? For example, were there specific advocacy groups, academic institutions influential in supporting this bill?
Were there interest groups that testified in support of this bill?
- Can you tell me about the opposition to passing this bill?
Was there opposition from constituents, parents, the tobacco, automotive, or other industry groups, legislators who disagreed?
What was your response to this opposition?
- Was there negotiation or modification of the original legislation in response to opposition or requests from supporters? (query about age decision)
- In promoting this bill were you influenced at all by legislation in other states or countries?
- How influential was public opinion in guiding the promotion of this bill?
- What was the role of media and press involvement in the progression of this bill?
- Looking at the whole picture, what do you think were the key facilitators to this bill passing at this time?