Approved: 02/12/09
Date

MINUTES OF THE SENATE PUBLIC HEALTH AND WELFARE COMMITTEE

The meeting was called to order by Chairman Jim Barnett at 1:30 p.m. on January 27, 2009, in Room 136-N of the Capitol.

All members were present.

Committee staff present:
Nobuko Folmsbee, Office of the Revisor of Statutes
Doug Taylor, Office of the Revisor of Statutes
Kelly Navinsky-Wenzl, Kansas Legislative Research Department
Terri Weber, Kansas Legislative Research Department
Jan Lunn, Committee Assistant

Conferees appearing before the committee:
Rod Bremby, Secretary , Kansas Department of Health and Environment
Joyce Morrison, Clean Air Kansas
Dr. Tom Schultz, KU Medical Center, Wichita
Molly Johnson, Private Citizen and Student
Teresa Carter, Susan G. Komen for the Cure
John Neuberger, Dr.Ph., , KU School of Medicine
Louie Reiderer, Owner, Johnny's Taverns
Anne Spiess, American Cancer Society for Dr. James Hamilton, American Cancer Society
Tracy Russell, Kansas Health Consumer Coalition
Cathy Porter, American Heart Association
Jace Smith, Private Citizen
Bob Harvey, AARP
Marcia Nielson, PhD, Kansas Health Policy Authority
Mary Jayne Hellebust, Tobacco Free Kansas Coalition
John Neuenswander, American Lung Association
Dave Pomeroy, Private Citizen and Clean Air Topeka
Bobbi Sauder, Clean Air Emporia
Rev. Craig Loye, Kansas Faith Alliance for Health Reform
Jeff Levin, Manhattan Chamber of Commerce
Jim Gardner, MD, Kansas Chapter American College of Physicians, Riley County Medical Society
Phil Black, Brown-Mackie College, Salina
Robert Vancrum, Greater Kansas City Chamber of Commerce
Graham Bailey, Vice President, Blue Cross and Blue Shield of Kansas, Inc.
Sharon Homan, PhD, Kansas Heart Institute

Others attending:
Approximately 45 members of the public.

Chairman Barnett opened the public hearing for proponents on **SB 25** - State-wide prohibition on smoking in indoor public areas.

Rod Bremby, Secretary , Kansas Department of Health and Environment (Attachment 1), presented testimony supporting **SB 25**. He indicated that 27 U.S. states and 16 foreign counties have passed 100% smoke-free laws to protect the health of their citizens.

Joyce Morrison on behalf of Clean Air Kansas testified that 71% of Kansas voters favor clean air legislation, and 83% of them believe secondhand smoke is hazardous to their health. (Attachment 2)

Tom Schultz, MD, Kansas University School of Medicine-Wichita cited statistics relative to lung cancer, secondhand smoke, and the 2006 US Surgeon General's Report (Attachment 3) detailing impact of tobacco smoke exposure.

Molly Johnson, Senior, University of Kansas, spoke from the perspective of a college student, and the benefits of clean air to the future (Attachment 4).

Minutes of the Senate Public Health And Welfare Committee at 1:30 p.m. on January 27, 2009, in Room 136-N of the Capitol.

Teresa Carter, Susan G. Komen for the Cure, spoke in support of a clean indoor air act and protection for Kansans from secondhand smoke. She indicated it is time to address what the Surgeon General (since 1966) has indicated is harmful. (Attachment 5)

John Neuberger, DrPH, University of Kansas School of Medicine, provided in-depth testimony relative to a survey he conducted in 2008 that resulted in 60% of respondents indicating support for a comprehensive indoor smoking regulation. In addition, he cited statistics from other states indicating no there was no negative economic harm from indoor smoking ordinances. (Attachment 6)

Louie Reiderer, owner of Johnny's Taverns throughout Kansas, provided testimony indicating his patrons enjoy a non-smoking environment (Attachment 7).

Dr. James Hamilton, American Cancer Society Government Relations Committee, was unable attend. Therefore, Anne Spiess of the American Cancer Society spoke for Dr. Hamilton. She provided a study that was done at Arizona University which reflected that banning of smoking had little effect on businesses (Attachment 8).

Tracy Russell of the Kansas Health Consumer Coalition, testified that while there seems to be little evidence to support claims of adverse financial impact resulting from clean air indoor laws, there is substantial proof of costs to Kansas taxpayers resulting from smoking and inhaling secondhand smoke. (Attachment 9).

Cathy Porter, American Heart Association, spoke relative to her experience as a heart attack survivor. She indicated the one cardiac risk factor she possessed was that she had been a smoker. She cited statistics relating to secondhand smoke and the risks to vulnerable populations (Attachment 10).

Jace Smith, a private citizen, provided testimony regarding his experience as a college student working in a smoking environment, and the negative impact on his health (Attachment 11).

Bob Harvey, representing the AARP, spoke in support of **SB** 25 indicating state agencies should take specific and effective steps to control all forms of pollution which threaten health, safety, and quality of life (Attachment 12).

Dr. Marcia Nielson, Kansas Health Policy Authority, provided a fact sheet, "Statewide Clean Indoor Air" (Attachment 13) as well as a comprehensive list of current research on clean air initiatives. Dr. Nielson indicated the KHPA supports a uniform policy that would ensure protection from secondhand smoke.

Mary Jayne Hellebust from Tobacco Free Kansas Coalition, testified that the passage of **SB** 25 would be a great step forward for public health in Kansas. Ms. Hellebust reported that currently almost $200 million in state funding is for Medicaid costs to treat Kansans for tobacco-related diseases. (Attachment 14)

John Neuenswander, Advocacy Director for the American Lung Association, provided testimony that scientific evidence indicates there is no risk-free level of exposure to secondhand smoke. He asserted that the Environmental Protection Agency predicts 3,000 lung cancer deaths and 37,000 heart disease deaths occur yearly in the United States due to exposure to secondhand smoke. (Attachment 15)

Dave Pomeroy, a private citizen, and member of Clean Air Topeka, spoke poignantly about the death of his daughter and her exposure to secondhand smoke. He indicated that, in his opinion, no business has the right to permit a dangerous substance to be unnecessarily present where/when employees and patrons are present. (Attachment 16).

Bobbi Sauder, Clean Air Emporia, spoke about her involvement with the passage of a Clean Air Ordinance in Emporia. Ms. Sauder shared several statistics related to smoking and secondhand smoke. (Attachment 17)

Rev. Craig Loya, Kansas Faith Alliance for Health Reform, was unable to testify; therefore, Barbara Gibson shared Rev. Loya's testimony (Attachment 18) reflecting the grassroots interests and local community perspectives of people living and working in Kansas support a clean air environment.

Minutes of the Senate Public Health And Welfare Committee at 1:30 p.m. on January 27, 2009, in Room 136-N of the Capitol.

Jeff Levin from the Manhattan Area Chamber of Commerce was present to discuss the impact of the recently-enacted smoking ban bill in Manhattan, and the issue of ensuring a statewide ban that provides no advantage to one business over another. (Attachment 19)

Bob Strawn, Mayor Pro Tem, Manhattan, also spoke relative to the Manhattan smoking ban process, and the difficulties/issues surrounding the petition process. H encouraged a statewide ban that "levels the playing field" for all businesses. (Attachment 20)

Dr. Jim Gardner appeared representing the Kansas Chapter of the American College of Physicians and Clean Air Manhattan. Dr. Gardner encouraged a clean air law that brings savings to health care costs, saves lives, and helps Kansas children grow up smoke free (Attachment 21).

Phil Black, Dean of Academic Affairs at Brown Mackie College in Salina, focused on the future and helping children negotiate through unhealthy influences. Mr. Black's testimony is attached (Attachment 22).

Robert Vancum, Greater Kansas City Chamber of Commerce, spoke about the increasing cost of healthcare and health insurance resulting from smoking and secondhand smoke. He indicated members in his organization overwhelmingly support measures to ban smoking in public places. (Attachment 23)

Graham Bailey, Vice President, Blue Cross and Blue Shield of Kansas, discussed healthcare costs in the last 12-month period for a member suffering a heart attack. He indicated in Pueblo, Colorado, three years following a smoking ban law, heart attack admissions were reduced 41%. In Kansas, if that percentage were applied to members who had heart attacks in a 12-month period, 838 fewer people would have heart attacks, saving $28.9 million in claims expense. Mr. Bailey's testimony is attached. (Attachment 24)

Sharon Homan, PhD, Kansas Health Institute and speaking from a neutral position, discussed the economic impact of Lawrence's smoke-free ordinance (Attachment 25). Dr. Homan indicated a study was performed analyzing taxable sales, both food (and other non-liquor sales) and liquor for bars and restaurants in Lawrence. Data was obtained from two sets of monthly tax receipts provided by the Kansas Department of Revenue. Results from the study did not show an overall negative impact on the restaurant and bar industry.

Chairman Barnett called committee member's attention to the following written testimony that was submitted:
City of Derby, KS (Attachment 26)
Gail Dicus, Private Citizen (Attachment 27)
Chad Austin, Kansas Hospital Association (Attachment 28)
Carolyn Gaughan, Kansas Academy of Family Physicians (Attachment 29)
James E. Sherow, City Commissioner, Manhattan (Attachment 30)
Donna Bartholomew, Skaets Steak Shop (Attachment 31)
Marcy Morris, Private Citizen (Attachment 32)
Fee Monshizadeh, Mariscos Restaurant, Lawrence (Attachment 33)
Bruce Snead, City Commissioner, Manhattan (Attachment 34)
Debbie Fox, Kansas Respiratory Society (Attachment 35)
Salvador Romero, Kansans for Nonsmokers Rights, Topeka (Attachment 36)
Teresa Walters, Emporians for Drug Awareness (Attachment 37)
Donald G. Carden, Registered Respiratory Therapist, Newton, (Attachment 38)
Susan Bumsted, Kansas State Nurses Association (Attachment 39)
Debra Zahr, Kansas Association of Homes and Services for the Aging (Attachment 40)
Dan Morin, Kansas Medical Society (Attachment 41)
Yvonne Gibbons and Del Byers, Saline County Health Department (Attachment 42)
Ronald E. Weiner, MD, Asthma, Allergy and Rheumatology Associates of Topeka, (Attachment 43)
Sonja Armbruster, Kansas Public Health Association, Inc. (Attachment 44)

The next meeting is scheduled for January 29, 2009.

The meeting was adjourned at 2:31 p.m.

KANSAS
DEPARTMENT OF HEALTH
AND ENVIRONMENT

Kathleen Sebelius, Governor
Roderick L. Bremby, Secretary

www.kdheks.gov

Testimony on SB 25
Kansas Clean Indoor Air Act

Presented To
Senate Committee on Public Health and Welfare

Presented by
Roderick L. Bremby, Secretary
Kansas Department of Health and Environment

January 27, 2009

Chairman Barnett and members of the committee, I am Roderick Bremby, Secretary of the Kansas Department of Health and Environment. Thank you for the opportunity to appear before you today to testify in support of SB 25, which proposes a statewide clean indoor air policy.

Kansas is certainly not alone in addressing the issue of clean indoor air. Twenty-seven U.S. states and 16 foreign countries, including France, Ireland and England have passed 100% smoke-free laws in restaurants and/or bars that protect the health of their citizens. Last year our neighbor Nebraska passed a strong clean indoor air bill to protect its citizens. Already in Kansas, two counties and 33 cities have adopted clean indoor air ordinances, to protect the health of approximately 50% of the state's population. From Overland Park to Garden City, city leaders have been successful in protecting the working public as well as the general constituency from the harmful effects of secondhand smoke. We applaud these local initiatives, as all Kansans deserve protection from the negative health effects of secondhand smoke.

The U.S. Surgeon General has eloquently summarized the current science related to secondhand smoke: "The debate is over. The science is clear. Secondhand Smoke is a serious health hazard that causes premature death and disease in children and nonsmoking adults." The Surgeon General's 2006 report went on to conclude that there is no safe level of exposure to secondhand smoke, and that separate ventilation systems for smoking areas of enclosed spaces are ineffective in eliminating exposure to secondhand smoke.

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Clean indoor air laws save lives. Approximately 400 Kansans die each year from exposure to secondhand smoke, and it's estimated that secondhand smoke plays a role in causing more than 2,100 new heart attacks each year. Secondhand smoke causes heart disease and respiratory disease in adults, and has been linked to asthma, inner ear infections, and SIDS in children. We're dealing with a true health threat. Eliminating exposure to secondhand smoke prevents disease and saves lives. (A copy of the Executive Summary of the Surgeon General's report accompanies this testimony for your review.)

Kansans support clean indoor air legislation. A poll conducted in the spring of 2007 by the Sunflower Foundation found that 71% of Kansas voters favor a statewide law prohibiting smoking in all indoor workplaces and public facilities. Nearly one-third of current smokers also support a smoking ban. Eighty-three percent of Kansas voters believe secondhand cigarette smoke is a health hazard.

Data from the 2006 Kansas Adult Tobacco Survey, a population-based scientific survey, has shown a similar pattern of public opinion regarding clean indoor air. The survey indicated that more than 76% of adult Kansans will support a law in their community that will make restaurants smoke free. In addition, almost 95% of Kansans said they would dine out with the same frequency or with a greater frequency with a clean indoor air ordinance.

It's also important to note that support for clean indoor air polices is not simply limited to health advocates. Nationwide, business groups, national chains of restaurants and bars, and major employers have embraced clean indoor air policies as a way to enhance their customer base, improve employee productivity, and stabilize health care costs.

Clean indoor air legislation serves the legislature's cause of health reform. The best prevention measures not only improve people's health, but also reduce health care costs. Clean indoor air legislation fulfills both of these criteria. One study estimated a 5% reduction in the number of people who smoke as a result of clean indoor air laws. A similar reduction in Kansas would prevent 178 smoking-related deaths with a gain of 2,314 total years of additional life for these Kansans. More importantly, reducing the number of "social smoking" opportunities will decrease the number of teens who start smoking. A study in Massachusetts found that youth who lived in towns with strict clean indoor air laws were 40% less likely to become regular smokers than those in communities with no laws or weak ones.

Clean indoor air laws save money. As smoking rates fall, the resulting health care costs of tobacco use will fall as well, especially over the long term. Currently, Kansas Medicaid pays an estimated $196 million dollars per year to treat tobacco related diseases. The overall medical cost (all payers) to Kansans for tobacco related disease is $927 million annually. Based on experiences from our neighboring states, it is estimated a clean indoor air law in Kansas would immediately save $21 million yearly in hospital charges by reducing the number of heart attacks provoked by secondhand smoke exposure. On-going assessment suggests this estimate is undoubtedly conservative.

The government has a duty to protect its citizens. Applying the terms proposed in SB 25 will achieve the goal of establishing a "floor" that dictates minimum protection from secondhand smoke for all Kansans. A clean indoor air policy applied statewide would also satisfy the desires of both the public and business owners for a policy that promotes a uniform, first step approach to regulating exposure to tobacco smoke.

Opposition to clean indoor air acts is based on fear, not facts. Studies have shown that there are no significant negative effects on the business community where clean indoor air acts have been passed. Even in the limited Kansas data we have from Lawrence, no negative economic consequences have been noted. And while there is significant concern about people crossing state lines to access smoking establishments (such as in Missouri), nationally many states with bordering metropolitan areas have passed clean indoor air laws with no lasting negative effects. Attached to this testimony is a summary of the positive economic experiences that clean indoor air communities throughout the nation have experienced.

Small businesses unfortunately fail for any number of reasons, but they will want to blame the failure on clean indoor air acts. However, the inescapable conclusion from reviewing the data is that clean indoor air acts have no negative economic impacts within a community. Furthermore, they provide opportunities to expand business in ways that benefit the business owner, his/her employees, and the local economy as a whole. The participation of individual business owners in formulating and promoting the adoption of clean indoor air ordinances in the Kansas City area demonstrates that this recognition is growing within the business community.

As noted earlier, approximately 400 Kansans die, and 2,100 have heart attacks each year from exposure to secondhand smoke. A strong, statewide clean indoor air act will have a significant impact not only on the number of people who die from secondhand smoke, but also in others who are influenced to quit smoking or to not start smoking, preventing future death, disability, and saving health care costs.

Thank you for the opportunity to appear before the committee today. I will now stand for questions.

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Economic Impact of Clean Indoor Air Laws

The 2006 Surgeon General's Report "The Health consequences of Involuntary Exposure to Tobacco Smoke" states that evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry.

Below are the highlighted results from some of the studies noted in the 2006 Surgeon General's Report.

- A study (Glantz and Smith, 1994) of sales tax data in California and Colorado found no effect on restaurant retails sales in communities with clean indoor air ordinances compared to sales in communities without ordinances. The communities studied varied in population from a few thousand to more than 300,000 and the length of time the ordinances were in effect ranged from a few months to more than 10 years. A follow-up study (Glantz and Smith, 1997) found the same result.

- Studies on retail restaurant sales in a small suburb of Austin, Texas, (CDC, 1995) and in El Paso, Texas, (CDC 2004) also found ordinances banning smoking had no effect on sales.

- A New York City study actually found an increase in sales after a smoking ban. Using taxable sales data from eating and drinking establishments in New York City, Hyland and colleagues (1999) observed a 2.1% increase in sales following implementation of a citywide smoking ban in restaurants compared with sales two years before the law took effect.

- A study in California (Cowling and Bond 2005) on tax revenue data from 1990 to 2002 also found an increase in restaurant revenues after a statewide smoke-free restaurant law and an increase in bar revenues after a statewide smoke-free bar law. A study of the California smoke-free bar law found the proportion of bar patrons who reported they were just as likely or more likely to visit bars that had become smoke-free increased from 86% three months after the law took effect in 1998 to 91% in 2000 (Tang et al. 2003).

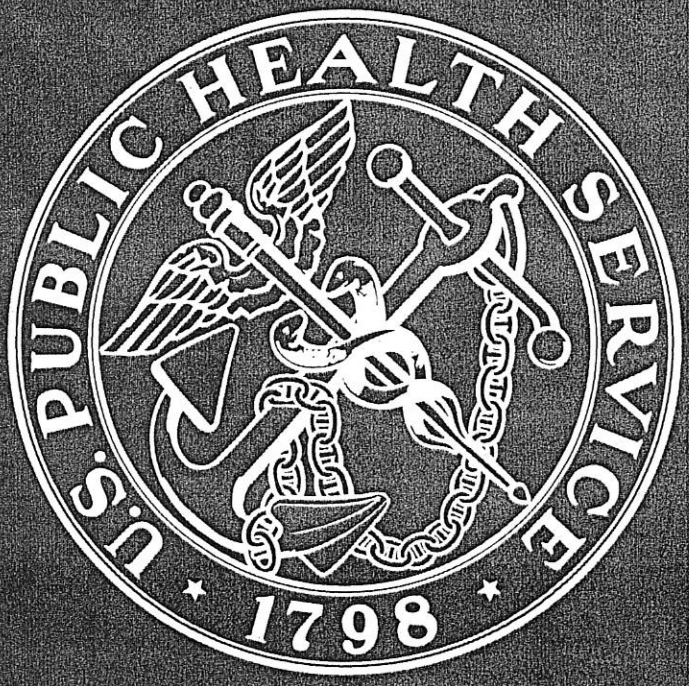
- A recent report from New York City (New York City Department of Finance, 2004) assessed all four economic indicators (sales tax receipts, revenues, employment, and the number of licenses issued) and reported increases in all four economic measures after the passage of city and state clean indoor air laws. Restaurant and bar business tax receipts had increased by 8.7%; employment in restaurants and bars had increased by about 2,800 seasonally adjusted jobs, and there was a net gain of 234 active liquor licenses for restaurants and bars.

- Glantz and Charlesworth (1999) examined hotel revenues and tourism rates in six cities before and after passage of smoke-free restaurant ordinances. The results indicated that smoke-free restaurant ordinances do not adversely affect tourism revenues and may, in fact, increase tourism (Glantz 2000).

While some organizations may site results of adverse economic impact, the Surgeon General's Report states, "Discrepancies between economic impact studies of clean indoor air laws conducted either by the tobacco industry or by non-industry–supported scientists can be traced in part to variations in the types of data analyzed. Studies commissioned by or for the tobacco industry to assess the economic impact of smoke-free restaurant and bar regulations have generally relied on proprietor predictions or estimates of changes in sales, rather than on actual sales or revenue data. Such estimates are subject to significant reporting bias and are viewed with skepticism because they do not constitute empirical data."

The Health Consequences of Involuntary Exposure to Tobacco Smoke

A Report of the Surgeon General



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

Suggested Citation

U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General—Executive Summary.* 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

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The Health Consequences of Involuntary Exposure to Tobacco Smoke

A Report of the Surgeon General

2006

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Office of the Surgeon General
Rockville, MD

1-8

Message from Michael O. Leavitt

Secretary of Health and Human Services

This Surgeon General's report returns to the topic of the health effects of involuntary exposure to tobacco smoke. The last comprehensive review of this evidence by the Department of Health and Human Services (DHHS) was in the 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking*, published 20 years ago this year. This new report updates the evidence of the harmful effects of involuntary exposure to tobacco smoke. This large body of research findings is captured in an accompanying dynamic database that profiles key epidemiologic findings, and allows the evidence on health effects of exposure to tobacco smoke to be synthesized and updated (following the format of the 2004 report, *The Health Consequences of Smoking*). The database enables users to explore the data and studies supporting the conclusions in the report. The database is available on the Web site of the Centers for Disease Control and Prevention (CDC) at http://www.cdc.gov/tobacco. I am grateful to the leadership of the Surgeon General, CDC's Office on Smoking and Health, and all of the contributors for preparing this important report and bringing this topic to the forefront once again.

Secondhand smoke, also known as environmental tobacco smoke, is a mixture of the smoke given off by the burning end of tobacco products (sidestream smoke) and the mainstream smoke exhaled by smokers. People are exposed to secondhand smoke at home, in the workplace, and in other public places such as bars, restaurants, and recreation venues. It is harmful and hazardous to the health of the general public and particularly dangerous to children. It increases the risk of serious respiratory problems in children, such as a greater number and severity of asthma attacks and lower respiratory tract infections, and increases the risk for middle ear infections. It is also a known human carcinogen (cancer-causing agent). Inhaling secondhand smoke causes lung cancer and coronary heart disease in nonsmoking adults.

We have made great progress since the late 1980s in reducing the involuntary exposure of nonsmokers in this country to secondhand smoke. The proportion of nonsmokers aged 4 and older with a blood cotinine level (a metabolite of nicotine) indicating exposure has declined from 88 percent in 1988–1991 down to 43 percent in 2001–2002, a decline that exceeds the *Healthy People 2010* objective for this measure. Despite the great progress that has been made, involuntary exposure to secondhand smoke remains a serious public health hazard that can be prevented by making homes, workplaces, and public places completely smoke-free. As of the year 2000, more than 126 million residents of the United States aged 3 or older still are estimated to be exposed to secondhand smoke. Smoke-free environments are the most effective method for reducing exposures. *Healthy People 2010* objectives address this issue and seek optimal protection of nonsmokers through policies, regulations, and laws requiring smoke-free environments in all schools, workplaces, and public places.

Foreword

This twenty-ninth report of the Surgeon General documents the serious and deadly health effects of involuntary exposure to tobacco smoke. Secondhand smoke is a major cause of disease, including lung cancer and coronary heart disease, in healthy nonsmokers.

In 2005, it was estimated that exposure to secondhand smoke kills more than 3,000 adult nonsmokers from lung cancer, approximately 46,000 from coronary heart disease, and an estimated 430 newborns from sudden infant death syndrome. In addition, secondhand smoke causes other respiratory problems in nonsmokers such as coughing, phlegm, and reduced lung function. According to the CDC's National Health Interview Survey in 2000, more than 80 percent of the respondents aged 18 years or older believe that secondhand smoke is harmful and nonsmokers should be protected in their workplaces.

Components of chemical compounds in secondhand smoke, including nicotine, carbon monoxide, and tobacco-specific carcinogens, can be detected in body fluids of exposed nonsmokers. These exposures can be controlled. In 2005, CDC released the *Third National Report on Human Exposure to Environmental Chemicals*, which found that the median cotinine level (a metabolite of nicotine) in nonsmokers had decreased across the life stages: by 68 percent in children, 69 percent in adolescents, and 75 percent in adults, when samples collected between 1999 and 2002 were compared with samples collected a decade earlier. These dramatic declines are further evidence that smoking restrictions in public places and workplaces are helping to ensure a healthier life for all people in the United States.

However, too many people continue to be exposed, especially children. The recent data indicate that median cotinine levels in children are more than twice those of adults, and non-Hispanic blacks have levels that are more than twice as high as those of Mexican Americans and non-Hispanic whites. These disparities need to be better understood and addressed.

Research reviewed in this report indicates that smoke-free policies are the most economic and effective approach for providing protection from exposure to secondhand smoke. But do they provide the greatest health impact. Separating smokers and nonsmokers in the same airspace is not effective, nor is air cleaning or a greater exchange of indoor with outdoor air. Additionally, having separately ventilated areas for smoking may not offer a satisfactory solution to reducing workplace exposures. Policies prohibiting smoking in the workplace have multiple benefits. Besides reducing exposure of nonsmokers to secondhand smoke, these policies reduce tobacco use by smokers and change public attitudes about tobacco use from acceptable to unacceptable.

Research indicates that the progressive restriction of smoking in the United States to protect nonsmokers has had the additional health impact of reducing active smoking. In November 2005, CDC's Tobacco-Free Campus policy took full effect in all facilities owned by CDC in the Atlanta area. As the Director of the nation's leading health promotion and disease prevention agency, I am proud to support this effort. With this commitment, CDC continues to protect the health and safety of all of its employees and serves as a role model for workplaces everywhere.

Julie Louise Gerberding, M.D., M.P.H.
Director
Centers for Disease Control and Prevention
and
Administrator
Agency for Toxic Substances and Disease Registry

Preface

from the Surgeon General,
U.S. Department of Health and Human Services

Twenty years ago when Dr. C. Everett Koop released the Surgeon General's report, *The Health Consequences of Involuntary Smoking*, it was the first Surgeon General's report to conclude that involuntary exposure of nonsmokers to tobacco smoke causes disease. The topic of involuntary exposure of nonsmokers to secondhand smoke was first considered in Surgeon General Jesse Steinfeld's 1972 report, and by 1986, the causal linkage between inhaling secondhand smoke and the risk for lung cancer was clear. By then, there was also abundant evidence of adverse effects of smoking by parents on their children.

Today, massive and conclusive scientific evidence documents adverse effects of involuntary smoking on children and adults, including cancer and cardiovascular diseases in adults, and adverse respiratory effects in both children and adults. This 2006 report of the Surgeon General updates the 1986 report, *The Health Consequences of Involuntary Smoking*, and provides a detailed review of the epidemiologic evidence on the health effects of involuntary exposure to tobacco smoke. This new report also uses the revised standard language of causality that was applied in the 2004 Surgeon General's report, *The Health Consequences of Smoking*.

Secondhand smoke is similar to the mainstream smoke inhaled by the smoker in that it is a complex mixture containing many chemicals (including formaldehyde, cyanide, carbon monoxide, ammonia, and nicotine), many of which are known carcinogens. Exposure to secondhand smoke causes excess deaths in the U.S. population from lung cancer and cardiac related illnesses. Fortunately, exposures of adults are declining as smoking becomes increasingly restricted in workplaces and public places. Unfortunately, children continue to be exposed in their homes by the smoking of their parents and other adults. This exposure leads to unnecessary cases of bronchitis, pneumonia and worsened asthma. Among children younger than 18 years of age, an estimated 22 percent are exposed to secondhand smoke in their homes, with estimates ranging from 11.7 percent in Utah to 34.2 percent in Kentucky.

As this report documents, exposure to secondhand smoke remains an alarming public health hazard. Approximately 60 percent of nonsmokers in the United States have biologic evidence of exposure to secondhand smoke. Yet compared with data reviewed in the 1986 report, I am encouraged by the progress that has been made in reducing involuntary exposure in many workplaces, restaurants, and other public places. These changes are most likely the major contributing factors to the more than 75 percent reduction in serum cotinine levels that researchers have observed from 1988 to 1991. However, more than 126 million nonsmokers are still exposed. We now have substantial evidence on the efficacy of different approaches to control exposure to secondhand smoke. Restrictions on smoking can control exposures effectively, but technical approaches involving air cleaning or a greater exchange of indoor with outdoor air cannot. Consequently, nonsmokers need protection through the restriction of smoking in public places and workplaces and by a voluntary adherence to policies at home, particularly to eliminate exposures of children. Since the release of the 1986 Surgeon General's report, the public's attitude and social norms toward secondhand smoke exposure have changed significantly—a direct result of the growing body of scientific evidence on the health effects of exposure to secondhand smoke that is summarized in this report.

Finally, clinicians should routinely ask about secondhand smoke exposure, particularly in susceptible groups or when a child has had an illness caused by secondhand smoke, such as pneumonia. Because of the high levels of exposure among young children, their exposure should be considered a significant pediatric issue. Additionally, exposure to secondhand smoke poses significant risks for people with lung and heart disease. The large body of evidence documenting that secondhand smoke exposures produce substantial and immediate effects on the cardiovascular system indicates that even brief exposures could pose significant acute risks to older adults or to others at high risk for cardiovascular disease. Those caring for relatives with heart disease should be advised not to smoke in the presence of the sick relative.

An environment free of involuntary exposure to secondhand smoke should remain an important national priority in order to reach the *Healthy People 2010* objectives.

Richard Carmona, M.D., M.P.H., F.A.C.S.
Surgeon General

12

Executive Summary

The topic of passive or involuntary smoking was first addressed in the 1972 U.S. Surgeon General's report (*The Health Consequences of Smoking*, U.S. Department of Health, Education, and Welfare [USDHEW] 1972), only eight years after the first Surgeon General's report on the health consequences of active smoking (USDHEW 1964). Surgeon General Dr. Jesse Steinfeld had raised concerns about this topic, leading to its inclusion in that report. According to the 1972 report, nonsmokers inhale the mixture of sidestream smoke given off by a smoldering cigarette and mainstream smoke exhaled by a smoker, a mixture now referred to as "secondhand smoke" or "environmental tobacco smoke." Cited experimental studies showed that smoking in enclosed spaces could lead to high levels of cigarette smoke components in the air. For carbon monoxide (CO) specifically, levels in enclosed spaces could exceed levels then permitted in outdoor air. The studies supported a conclusion that "an atmosphere contaminated with tobacco smoke can contribute to the discomfort of many individuals" (USDHEW 1972, p. 7). The possibility that CO emitted from cigarettes could harm persons with chronic heart or lung disease was also mentioned.

Secondhand tobacco smoke was then addressed in greater depth in Chapter 4 (Involuntary Smoking) of the 1975 Surgeon General's report, *The Health Consequences of Smoking* (USDHEW 1975). The chapter noted that involuntary smoking takes place when nonsmokers inhale both sidestream and exhaled mainstream smoke and that this "smoking" is "involuntary" when "the exposure occurs as an unavoidable consequence of breathing in a smoke-filled environment" (p. 87). The report covered exposures and potential health consequences of involuntary smoking, and the researchers concluded that smoking on buses and airplanes was annoying to nonsmokers and that involuntary smoking had potentially adverse consequences for persons with heart and lung diseases. Two studies on nicotine concentrations in nonsmokers raised concerns about nicotine as a contributing factor to atherosclerotic cardiovascular disease in nonsmokers.

The 1979 Surgeon General's report, *Smoking and Health: A Report of the Surgeon General* (USDHEW 1979), also contained a chapter entitled "Involuntary Smoking." The chapter stressed that "attention to involuntary smoking is of recent vintage, and only limited information regarding the health effects of such exposure upon the nonsmoker is available" (p. 11–35). The chapter concluded with recommendations for research including epidemiologic and clinical studies. The 1982 Surgeon General's report specifically addressed smoking and cancer (U.S. Department of Health and Human Services [USDHHS] 1982). By 1982, there were three published epidemiologic studies on involuntary smoking and lung cancer, and the 1982 Surgeon General's report included a brief chapter on this topic. That chapter commented on the methodologic difficulties inherent in such studies, including exposure assessment, the lengthy interval during which exposures are likely to be relevant, and accounting for exposures to other carcinogens. Nonetheless, the report concluded that "Although the currently available evidence is not sufficient to conclude that passive or involuntary smoking causes lung cancer in nonsmokers, the evidence does raise concern about a possible serious public health problem" (p. 251).

Involuntary smoking was also reviewed in the 1984 report, which focused on chronic obstructive pulmonary disease and smoking (USDHHS 1984). Chapter 7 (Passive Smoking) of that report included a comprehensive review of the mounting information on smoking by parents and the effects on respiratory health of their children, data on irritation of the eye, and the more limited evidence on pulmonary effects of involuntary smoking on adults. The chapter began with a compilation of measurements of tobacco smoke components in various indoor environments. The extent of the data had increased substantially since 1972. By 1984, the data included measurements of more specific indicators such as acrolein and nicotine, and less specific indicators such as particulate matter (PM), nitrogen oxides, and CO. The report reviewed new evidence on exposures of nonsmokers using biomarkers, with substantial information on levels of cotinine, a major nicotine metabolite. The report anticipated future conclusions with regard to respiratory effects of parental smoking on child respiratory health (Table 1.1).

Involuntary smoking was the topic for the entire 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking* (USDHHS 1986). In its 359 pages, the report covered the full breadth of the topic, addressing toxicology and dosimetry of tobacco smoke; the relevant evidence on active smoking;

Table 1.1 Conclusions from previous Surgeon General's reports on the health effects of secondhand smoke exposure

Disease and statement	Surgeon General's report
Coronary heart disease: "The presence of such levels" as found in cigarettes "indicates that the effect of exposure to carbon monoxide may on occasion, depending upon the length of exposure, be sufficient to be harmful to the health of an exposed person. This would be particularly significant for people who are already suffering from. . .coronary heart disease." (p. 7)	1972
Chronic respiratory symptoms (adults): "The presence of such levels" as found in cigarettes "indicates that the effect of exposure to carbon monoxide may on occasion, depending upon the length of exposure, be sufficient to be harmful to the health of an exposed person. This would be particularly significant for people who are already suffering from chronic bronchopulmonary disease. . . ." (p. 7)	1972
Pulmonary function: "Other components of tobacco smoke, such as particulate matter and the oxides of nitrogen, have been shown in various concentrations to affect adversely animal pulmonary. . .function. The extent of the contributions of these substances to illness in humans exposed to the concentrations present in an atmosphere contaminated with tobacco smoke is not presently known." (pp. 7–8)	1972
Asthma: "The limited existing data yield conflicting results concerning the relationship between passive smoke exposure and pulmonary function changes in patients with asthma." (p. 13)	1984
Bronchitis and pneumonia: "The children of smoking parents have an increased prevalence of reported respiratory symptoms, and have an increased frequency of bronchitis and pneumonia early in life." (p. 13)	1984
Pulmonary function (children): "The children of smoking parents appear to have measurable but small differences in tests of pulmonary function when compared with children of nonsmoking parents. The significance of this finding to the future development of lung disease is unknown." (p. 13)	1984
Pulmonary function (adults): ". . .some studies suggest that high levels of involuntary [tobacco] smoke exposure might produce small changes in pulmonary function in normal subjects. . . . Two studies have reported differences in measures of lung function in older populations between subjects chronically exposed to involuntary smoking and those who were not. This difference was not found in a younger and possibly less exposed population." (p. 13)	1984
Acute respiratory infections: "The children of parents who smoke have an increased frequency of a variety of acute respiratory illnesses and infections, including chest illnesses before 2 years of age and physician-diagnosed bronchitis, tracheitis, and laryngitis, when compared with the children of nonsmokers." (p. 13)	1986
Bronchitis and pneumonia: "The children of parents who smoke have an increased frequency of hospitalization for bronchitis and pneumonia during the first year of life when compared with the children of nonsmokers." (p. 13)	1986
Cancers other than lung: "The associations between cancers, other than cancer of the lung, and involuntary smoking require further investigation before a determination can be made about the relationship of involuntary smoking to these cancers." (p. 14)	1986
Cardiovascular disease: "Further studies on the relationship between involuntary smoking and cardiovascular disease are needed in order to determine whether involuntary smoking increases the risk of cardiovascular disease." (p. 14)	1986

14
1-15

Table 1.1 Continued

Disease and statement	Surgeon General's report
Chronic cough and phlegm (children): "Chronic cough and phlegm are more frequent in children whose parents smoke compared with children of nonsmokers." (p. 13)	1986
Chronic obstructive pulmonary disease (COPD): "Healthy adults exposed to environmental tobacco smoke may have small changes on pulmonary function testing, but are unlikely to experience clinically significant deficits in pulmonary function as a result of exposure to environmental tobacco smoke alone." (pp. 13–14)	1986
"The implications of chronic respiratory symptoms for respiratory health as an adult are unknown and deserve further study." (p. 13)	
Lung cancer: "Involuntary smoking can cause lung cancer in nonsmokers." (p. 13)	1986
Middle ear effusions: "A number of studies report that chronic middle ear effusions are more common in young children whose parents smoke than in children of nonsmoking parents." (p. 14)	1986
Pulmonary function (children): "The children of parents who smoke have small differences in tests of pulmonary function when compared with the children of nonsmokers. Although this decrement is insufficient to cause symptoms, the possibility that it may increase susceptibility to chronic obstructive pulmonary disease with exposure to other agents in adult life, e.g., [*sic*] active smoking or occupational exposures, needs investigation." (p. 13)	1986
Other:	
"An atmosphere contaminated with tobacco smoke can contribute to the discomfort of many individuals." (p. 7)	1972
"Cigarette smoke can make a significant, measurable contribution to the level of indoor air pollution at levels of smoking and ventilation that are common in the indoor environment." (p. 13)	1984
"Cigarette smoke in the air can produce an increase in both subjective and objective measures of eye irritation." (p. 13)	1984
"Nonsmokers who report exposure to environmental tobacco smoke have higher levels of urinary cotinine, a metabolite of nicotine, than those who do not report such exposure." (p. 13)	1984
"The simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, the exposure of nonsmokers to environmental tobacco smoke." (p. 13)	1986
"Validated questionnaires are needed for the assessment of recent and remote exposure to environmental tobacco smoke in the home, workplace, and other environments." (p. 14)	1986

Sources: U.S. Department of Health, Education, and Welfare 1972; U.S. Department of Health and Human Services 1984, 1986.

15
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patterns of exposure of nonsmokers to tobacco smoke; the epidemiologic evidence on involuntary smoking and disease risks for infants, children, and adults; and policies to control involuntary exposure to tobacco smoke. That report concluded that involuntary smoking caused lung cancer in lifetime nonsmoking adults and was associated with adverse effects on respiratory health in children. The report also stated that simply separating smokers and nonsmokers within the same airspace reduced but did not eliminate exposure to secondhand smoke. All of these findings are relevant to public health and public policy (Table 1.1). The lung cancer conclusion was based on extensive information already available on the carcinogenicity of active smoking, the qualitative similarities between secondhand and mainstream smoke, the uptake of tobacco smoke components by nonsmokers, and the epidemiologic data on involuntary smoking. The three major conclusions of the report (Table 1.2), led Dr. C. Everett Koop, Surgeon General at the time, to comment in his preface that "the right of smokers to smoke ends where their behavior affects the health and well-being of others; furthermore, it is the smokers' responsibility to ensure that they do not expose nonsmokers to the potential [*sic*] harmful effects of tobacco smoke" (USDHHS 1986, p. xii).

Two other reports published in 1986 also reached the conclusion that involuntary smoking increased the risk for lung cancer. The International Agency for Research on Cancer (IARC) of the World Health Organization concluded that "passive smoking gives rise to some risk of cancer" (IARC 1986, p. 314). In its monograph on tobacco smoking, the agency supported this conclusion on the basis of the characteristics of sidestream and mainstream smoke, the absorption of tobacco smoke materials during an involuntary exposure, and the nature of dose-response relationships for carcinogenesis. In the same year, the National Research Council (NRC) also concluded that involuntary smoking increases the incidence of lung cancer in nonsmokers (NRC 1986). In reaching this conclusion, the NRC report cited the biologic plausibility of the association between exposure to secondhand smoke and lung cancer and the supporting epidemiologic evidence. On the basis of a pooled analysis of the epidemiologic data adjusted for bias, the report concluded that the best estimate for the excess risk of lung cancer in nonsmokers married to smokers was 25 percent, compared with nonsmokers married to nonsmokers. With regard to the effects of involuntary smoking on children, the NRC report commented on the literature linking secondhand smoke exposures from parental smoking to increased risks for respiratory symptoms and infections and to a slightly diminished rate of lung growth.

Since 1986, the conclusions with regard to both the carcinogenicity of secondhand smoke and the adverse effects of parental smoking on the health of children have been echoed and expanded (Table 1.3). In 1992, the U.S. Environmental Protection Agency (EPA) published its risk assessment of secondhand smoke as a carcinogen (USEPA 1992). The agency's evaluation drew on toxicologic information on secondhand smoke and the extensive literature on active smoking. A comprehensive meta-analysis of the 31 epidemiologic studies of secondhand smoke and lung cancer published up to that time was central to the decision to classify secondhand smoke as a group A carcinogen—namely, a known human carcinogen. Estimates of approximately 3,000 U.S. lung cancer deaths per year in nonsmokers were attributed to secondhand smoke. The report also covered other respiratory health effects in children and adults and concluded that involuntary smoking is causally associated with several adverse

Table 1.2 Major conclusions of the 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking*

1. Involuntary smoking is a cause of disease, including lung cancer, in healthy nonsmokers.
2. The children of parents who smoke compared with the children of nonsmoking parents have an increased frequency of respiratory infections, increased respiratory symptoms, and slightly smaller rates of increase in lung function as the lung matures.
3. The simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, the exposure of nonsmokers to environmental tobacco smoke.

Source: U.S. Department of Health and Human Services 1986, p. 7.

Table 1.3 Selected major reports, other than those of the U.S. Surgeon General, addressing adverse effects from exposure to tobacco smoke

Agency	Publication	Place and date of publication
National Research Council	*Environmental Tobacco Smoke: Measuring Exposures and Assessing Health Effects*	Washington, D.C. United States 1986
International Agency for Research on Cancer (IARC)	*Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans: Tobacco Smoking* (IARC Monograph 38)	Lyon, France 1986
U.S. Environmental Protection Agency (EPA)	*Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*	Washington, D.C. United States 1992
National Health and Medical Research Council	*The Health Effects of Passive Smoking*	Canberra, Australia 1997
California EPA (Cal/EPA), Office of Environmental Health Hazard Assessment	*Health Effects of Exposure to Environmental Tobacco Smoke*	Sacramento, California United States 1997
Scientific Committee on Tobacco and Health	*Report of the Scientific Committee on Tobacco and Health*	London, United Kingdom 1998
World Health Organization	*International Consultation on Environmental Tobacco Smoke (ETS) and Child Health. Consultation Report*	Geneva, Switzerland 1999
IARC	*Tobacco Smoke and Involuntary Smoking* (IARC Monograph 83)	Lyon, France 2004
Cal/EPA, Office of Environmental Health Hazard Assessment	*Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant*	Sacramento, California United States 2005

respiratory effects in children. There was also a quantitative risk assessment for the impact of involuntary smoking on childhood asthma and lower respiratory tract infections in young children.

In the decade since the 1992 EPA report, scientific panels continued to evaluate the mounting evidence linking involuntary smoking to adverse health effects (Table 1.3). The most recent was the 2005 report of the California EPA (Cal/EPA 2005). Over time, research has repeatedly affirmed the conclusions of the 1986 Surgeon General's reports and studies have further identified causal associations of involuntary smoking with diseases and other health disorders. The epidemiologic evidence on involuntary smoking has markedly expanded since 1986, as have the data on exposure to tobacco smoke in the many environments where people spend time. An understanding of the mechanisms by which involuntary smoking causes disease has also deepened.

As part of the environmental health hazard assessment, Cal/EPA identified specific health effects causally associated with exposure to secondhand smoke. The agency estimated the annual excess deaths in the United States that are attributable to secondhand smoke exposure for specific disorders: sudden infant death syndrome (SIDS), cardiac-related illnesses (ischemic heart disease), and lung cancer (Cal/EPA 2005). For the excess incidence of other health outcomes, either new estimates were provided or estimates from the 1997 health hazard assessment were used without any revisions (Cal/EPA 1997). Overall, Cal/EPA estimated that about 50,000 excess deaths

17
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result annually from exposure to secondhand smoke (Cal/EPA 2005). Estimated annual excess deaths for the total U.S. population are about 3,400 (a range of 3,423 to 8,866) from lung cancer, 46,000 (a range of 22,700 to 69,600) from cardiac-related illnesses, and 430 from SIDS. The agency also estimated that between 24,300 and 71,900 low birth weight or preterm deliveries, about 202,300 episodes of childhood asthma (new cases and exacerbations), between 150,000 and 300,000 cases of lower respiratory illness in children, and about 789,700 cases of middle ear infections in children occur each year in the United States as a result of exposure to secondhand smoke.

This new 2006 Surgeon General's report returns to the topic of involuntary smoking. The health effects of involuntary smoking have not received comprehensive coverage in this series of reports since 1986. Reports since then have touched on selected aspects of the topic: the 1994 report on tobacco use among young people (USDHHS 1994), the 1998 report on tobacco use among U.S. racial and ethnic minorities (USDHHS 1998), and the 2001 report on women and smoking (USDHHS 2001). As involuntary smoking remains widespread in the United States and elsewhere, the preparation of this report was motivated by the persistence of involuntary smoking as a public health problem and the need to evaluate the substantial new evidence reported since 1986. This report substantially expands the list of topics that were included in the 1986 report. Additional topics include SIDS, developmental effects, and other reproductive effects; heart disease in adults; and cancer sites beyond the lung. For some associations of involuntary smoking with adverse health effects, only a few studies were reviewed in 1986 (e.g., ear disease in children); now, the relevant literature is substantial. Consequently, this report uses meta-analysis to quantitatively summarize evidence as appropriate. Following the approach used in the 2004 report (*The Health Consequences of Smoking*, USDHHS 2004), this 2006 report also systematically evaluates the evidence for causality, judging the extent of the evidence available and then making an inference as to the nature of the association.

Organization of the Report

This twenty-ninth report of the Surgeon General examines the topics of toxicology of secondhand smoke, assessment and prevalence of exposure to secondhand smoke, reproductive and developmental health effects, respiratory effects of exposure to secondhand smoke in children and adults, cancer among adults, cardiovascular diseases, and the control of secondhand smoke exposure.

This introductory chapter (Chapter 1) includes a discussion of the concept of causation and introduces concepts of causality that are used throughout this report; this chapter also summarizes the major conclusions of the report. Chapter 2 (Toxicology of Secondhand Smoke) sets out a foundation for interpreting the observational evidence that is the focus of most of the following chapters. The discussion details the mechanisms that enable tobacco smoke components to injure the respiratory tract and cause nonmalignant and malignant diseases and other adverse effects. Chapter 3 (Assessment of Exposure to Secondhand Smoke) provides a perspective on key factors that determine exposures of people to secondhand smoke in indoor environments, including building designs and operations, atmospheric markers of secondhand smoke, exposure models, and biomarkers of exposure to secondhand smoke. Chapter 4 (Prevalence of Exposure to Secondhand Smoke) summarizes findings that focus on nicotine measurements in the air and cotinine measurements in biologic materials. The chapter includes exposures in the home, workplace, public places, and special populations. Chapter 5 (Reproductive and Developmental Effects from Exposure to Secondhand Smoke) reviews the health effects on reproduction, on infants, and on child development. Chapter 6 (Respiratory Effects in Children from Exposure to Secondhand Smoke) examines the effects of parental smoking on the respiratory health of children. Chapter 7 (Cancer Among Adults from Exposure to Secondhand Smoke) summarizes the evidence on cancer of the lung, breast, nasal sinuses, and the cervix. Chapter 8 (Cardiovascular Diseases from Exposure to Secondhand Smoke) discusses coronary heart disease (CHD), stroke, and subclinical vascular disease. Chapter 9 (Respiratory Effects in Adults from Exposure to Secondhand Smoke) examines odor and irritation, respiratory symptoms, lung function, and respiratory diseases such as asthma and chronic obstructive pulmonary disease. Chapter 10 (Control of Secondhand Smoke Exposure) considers measures used to control exposure to secondhand smoke in public places, including legislation, education, and approaches based on building designs and operations. The report concludes with "A Vision for the Future." Major conclusions of the report were distilled from the chapter conclusions and appear later in this chapter.

Preparation of the Report

This report of the Surgeon General was prepared by the Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Coordinating Center for Health Promotion, Centers for Disease Control and Prevention (CDC), and U.S. DHHS. Initial chapters were written by 22 experts who were selected because of their knowledge of a particular topic. The contributions of the initial experts were consolidated into 10 major chapters that were then reviewed by more than 40 peer reviewers. The entire manuscript was then sent to more than 30 scientists and experts who reviewed it for its scientific integrity. After each review cycle, the drafts were revised by the scientific editors on the basis of the experts' comments. Subsequently, the report was reviewed by various institutes and agencies within U.S. DHHS. Publication lags, even short ones, prevent an up-to-the-minute inclusion of all recently published articles and data. Therefore, by the time the public reads this report, there may be additional published studies or data. To provide published information as current as possible, this report includes an Appendix of more recent studies that represent major additions to the literature.

This report is also accompanied by a companion database of key evidence that is accessible through the Internet (http://www.cdc.gov/tobacco). The database includes a uniform description of the studies and results on the health effects of exposure to secondhand smoke that were presented in a format compatible with abstraction into standardized tables. Readers of the report may access these data for additional analyses, tables, or figures.

Definitions and Terminology

The inhalation of tobacco smoke by nonsmokers has been variably referred to as "passive smoking" or "involuntary smoking." Smokers, of course, also inhale secondhand smoke. Cigarette smoke contains both particles and gases generated by the combustion at high temperatures of tobacco, paper, and additives. The smoke inhaled by nonsmokers that contaminates indoor spaces and outdoor environments has often been referred to as "secondhand smoke" or "environmental tobacco smoke." This inhaled smoke is the mixture of sidestream smoke released by the smoldering cigarette and the mainstream smoke that is exhaled by a smoker. Sidestream smoke, generated at lower temperatures and under somewhat different combustion conditions than mainstream smoke, tends to have higher concentrations of many of the toxins found in cigarette smoke (USDHHS 1986). However, it is rapidly diluted as it travels away from the burning cigarette.

Secondhand smoke is an inherently dynamic mixture that changes in characteristics and concentration with the time since it was formed and the distance it has traveled. The smoke particles change in size and composition as gaseous components are volatilized and moisture content changes; gaseous elements of secondhand smoke may be adsorbed onto materials, and particle concentrations drop with both dilution in the air or environment and impaction on surfaces, including the lungs or on the body. Because of its dynamic nature, a specific quantitative definition of secondhand smoke cannot be offered.

This report uses the term secondhand smoke in preference to environmental tobacco smoke, even though the latter may have been used more frequently in previous reports. The descriptor "secondhand" captures the involuntary nature of the exposure, while "environmental" does not. This report also refers to the inhalation of secondhand smoke as involuntary smoking, acknowledging that most nonsmokers do not want to inhale tobacco smoke. The exposure of the fetus to tobacco smoke, whether from active smoking by the mother or from her exposure to secondhand smoke, also constitutes involuntary smoking.

19
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Evidence Evaluation

Following the model of the 1964 report, the Surgeon General's reports on smoking have included comprehensive compilations of the evidence on the health effects of smoking. The evidence is analyzed to identify causal associations between smoking and disease according to enunciated principles, sometimes referred to as the "Surgeon General's criteria" or the "Hill" criteria (after Sir Austin Bradford Hill) for causality (USDHEW 1964; USDHHS 2004). Application of these criteria involves covering all relevant observational and experimental evidence. The criteria, offered in a brief chapter of the 1964 report entitled "Criteria for Judgment," included (1) the consistency of the association, (2) the strength of the association, (3) the specificity of the association, (4) the temporal relationship of the association, and (5) the coherence of the association. Although these criteria have been criticized (e.g., Rothman and Greenland 1998), they have proved useful as a framework for interpreting evidence on smoking and other postulated causes of disease, and for judging whether causality can be inferred.

In the 2004 report of the Surgeon General, *The Health Consequences of Smoking,* the framework for interpreting evidence on smoking and health was revisited in depth for the first time since the 1964 report (USDHHS 2004). The 2004 report provided a four-level hierarchy for interpreting evidence (Table 1.4). The categories acknowledge that evidence can be "suggestive" but not adequate to infer a causal relationship, and also allows for evidence that is "suggestive of no causal relationship." Since the 2004 report, the individual chapter conclusions have consistently used this four-level hierarchy (Table 1.4), but evidence syntheses and other summary statements may use either the term "increased risk" or "cause" to describe instances in which there is sufficient evidence to conclude that active or involuntary smoking causes a disease or condition. This four-level framework also sharply and completely separates conclusions regarding causality from the implications of such conclusions.

That same framework was used in this report on involuntary smoking and health. The criteria dating back to the 1964 Surgeon General's report remain useful as guidelines for evaluating evidence (USDHEW 1964), but they were not intended to be applied strictly or as a "checklist" that needed to be met before the designation of "causal" could be applied to an association. In fact, for involuntary smoking and health, several of the criteria will not be met for some associations. Specificity, referring to a unique exposure-disease relationship (e.g., the association between thalidomide use during pregnancy and unusual birth defects), can be set aside as not relevant, as all of the health effects considered in this report have causes other than involuntary smoking. Associations are considered more likely to be causal as the strength of an association increases because competing explanations become less plausible alternatives. However, based on knowledge of dosimetry and mechanisms of injury and disease causation, the risk is anticipated to be only slightly or modestly increased for some associations of involuntary smoking with disease, such as lung cancer, particularly when the very strong relative risks found for active smokers are compared with those for lifetime nonsmokers. The finding of only a small elevation in risk, as in the

Table 1.4 Four-level hierarchy for classifying the strength of causal inferences based on available evidence

Level 1	Evidence is **sufficient** to infer a causal relationship.
Level 2	Evidence is **suggestive but not sufficient** to infer a causal relationship.
Level 3	Evidence is **inadequate** to infer the presence or absence of a causal relationship (which encompasses evidence that is sparse, of poor quality, or conflicting).
Level 4	Evidence is **suggestive of no causal relationship.**

Source: U.S. Department of Health and Human Services 2004.

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example of spousal smoking and lung cancer risk in lifetime nonsmokers, does not weigh against a causal association; however, alternative explanations for a risk of a small magnitude need full exploration and cannot be so easily set aside as alternative explanations for a stronger association. Consistency, coherence, and the temporal relationship of involuntary smoking with disease are central to the interpretations in this report. To address coherence, the report draws not only on the evidence for involuntary smoking, but on the even more extensive literature on active smoking and disease.

Although the evidence reviewed in this report comes largely from investigations of secondhand smoke specifically, the larger body of evidence on active smoking is also relevant to many of the associations that were evaluated. The 1986 report found secondhand smoke to be qualitatively similar to mainstream smoke inhaled by the smoker and concluded that secondhand smoke would be expected to have "a toxic and carcinogenic potential that would not be expected to be qualitatively different from that of MS [mainstream smoke]" (USDHHS 1986, p. 23). The 2004 report of the Surgeon General revisited the health consequences of active smoking (USDHHS 2004), and the conclusions substantially expanded the list of diseases and conditions caused by smoking. Chapters in the present report consider the evidence on active smoking that is relevant to biologic plausibility for causal associations between involuntary smoking and disease. The reviews included in this report cover evidence identified through search strategies set out in each chapter. Of necessity, the evidence on mechanisms was selectively reviewed. However, an attempt was made to cover all health studies through specified target dates. Because of the substantial amount of time involved in preparing this report, lists of new key references published after these cut-off dates are included in an Appendix. Literature reviews were extended when new evidence was sufficient to possibly change the level of a causal conclusion.

Major Conclusions

This report returns to involuntary smoking, the topic of the 1986 Surgeon General's report. Since then, there have been many advances in the research on secondhand smoke, and substantial evidence has been reported over the ensuing 20 years. This report uses the revised language for causal conclusions that was implemented in the 2004 Surgeon General's report (USDHHS 2004). Each chapter provides a comprehensive review of the evidence, a quantitative synthesis of the evidence if appropriate, and a rigorous assessment of sources of bias that may affect interpretations of the findings. The reviews in this report reaffirm and strengthen the findings of the 1986 report. With regard to the involuntary exposure of nonsmokers to tobacco smoke, the scientific evidence now supports the following major conclusions:

1. Secondhand smoke causes premature death and disease in children and in adults who do not smoke.

2. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma. Smoking by parents causes respiratory symptoms and slows lung growth in their children.

3. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer.

4. The scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke.

5. Many millions of Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces despite substantial progress in tobacco control.

6. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposures of nonsmokers to secondhand smoke.

Chapter Conclusions

Chapter 2. Toxicology of Secondhand Smoke

Evidence of Carcinogenic Effects from Secondhand Smoke Exposure

1. More than 50 carcinogens have been identified in sidestream and secondhand smoke.

2. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and its condensates and tumors in laboratory animals.

3. The evidence is sufficient to infer that exposure of nonsmokers to secondhand smoke causes a significant increase in urinary levels of metabolites of the tobacco-specific lung carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK). The presence of these metabolites links exposure to secondhand smoke with an increased risk for lung cancer.

4. The mechanisms by which secondhand smoke causes lung cancer are probably similar to those observed in smokers. The overall risk of secondhand smoke exposure, compared with active smoking, is diminished by a substantially lower carcinogenic dose.

Mechanisms of Respiratory Tract Injury and Disease Caused by Secondhand Smoke Exposure

5. The evidence indicates multiple mechanisms by which secondhand smoke exposure causes injury to the respiratory tract.

6. The evidence indicates mechanisms by which secondhand smoke exposure could increase the risk for sudden infant death syndrome.

Mechanisms of Secondhand Smoke Exposure and Heart Disease

7. The evidence is sufficient to infer that exposure to secondhand smoke has a prothrombotic effect.

8. The evidence is sufficient to infer that exposure to secondhand smoke causes endothelial cell dysfunctions.

9. The evidence is sufficient to infer that exposure to secondhand smoke causes atherosclerosis in animal models.

Chapter 3. Assessment of Exposure to Secondhand Smoke

Building Designs and Operations

1. Current heating, ventilating, and air conditioning systems alone cannot control exposure to secondhand smoke.

2. The operation of a heating, ventilating, and air conditioning system can distribute secondhand smoke throughout a building.

Exposure Models

3. Atmospheric concentration of nicotine is a sensitive and specific indicator for secondhand smoke.

4. Smoking increases indoor particle concentrations.

5. Models can be used to estimate concentrations of secondhand smoke.

Biomarkers of Exposure to Secondhand Smoke

6. Biomarkers suitable for assessing recent exposures to secondhand smoke are available.

7. At this time, cotinine, the primary proximate metabolite of nicotine, remains the biomarker of choice for assessing secondhand smoke exposure.

8. Individual biomarkers of exposure to secondhand smoke represent only one component of a complex mixture, and measurements of one marker may not wholly reflect an exposure to other components of concern as a result of involuntary smoking.

Chapter 4. Prevalence of Exposure to Secondhand Smoke

1. The evidence is sufficient to infer that large numbers of nonsmokers are still exposed to secondhand smoke.

2. Exposure of nonsmokers to secondhand smoke has declined in the United States since the 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking*.

3. The evidence indicates that the extent of secondhand smoke exposure varies across the country.

4. Homes and workplaces are the predominant locations for exposure to secondhand smoke.

5. Exposure to secondhand smoke tends to be greater for persons with lower incomes.

6. Exposure to secondhand smoke continues in restaurants, bars, casinos, gaming halls, and vehicles.

Chapter 5. Reproductive and Developmental Effects from Exposure to Secondhand Smoke

Fertility

1. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke and female fertility or fecundability. No data were found on paternal exposure to secondhand smoke and male fertility or fecundability.

Pregnancy (Spontaneous Abortion and Perinatal Death)

2. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke during pregnancy and spontaneous abortion.

Infant Deaths

3. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and neonatal mortality.

Sudden Infant Death Syndrome

4. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and sudden infant death syndrome.

Preterm Delivery

5. The evidence is suggestive but not sufficient to infer a causal relationship between maternal exposure to secondhand smoke during pregnancy and preterm delivery.

Low Birth Weight

6. The evidence is sufficient to infer a causal relationship between maternal exposure to secondhand smoke during pregnancy and a small reduction in birth weight.

Congenital Malformations

7. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and congenital malformations.

Cognitive Development

8. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and cognitive functioning among children.

Behavioral Development

9. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and behavioral problems among children.

Height/Growth

10. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and children's height/growth.

Childhood Cancer

11. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood cancer.

12. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke during pregnancy and childhood cancer.

13. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke during infancy and childhood cancer.

14. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood leukemias.

15. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood lymphomas.

16. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood brain tumors.

17. The evidence is inadequate to infer the presence or absence of a causal relationship between prenatal and postnatal exposure to secondhand smoke and other childhood cancer types.

Chapter 6. Respiratory Effects in Children from Exposure to Secondhand Smoke

Lower Respiratory Illnesses in Infancy and Early Childhood

1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and lower respiratory illnesses in infants and children.

2. The increased risk for lower respiratory illnesses is greatest from smoking by the mother.

Middle Ear Disease and Adenotonsillectomy

3. The evidence is sufficient to infer a causal relationship between parental smoking and middle ear disease in children, including acute and recurrent otitis media and chronic middle ear effusion.

4. The evidence is suggestive but not sufficient to infer a causal relationship between parental smoking and the natural history of middle ear effusion.

5. The evidence is inadequate to infer the presence or absence of a causal relationship between parental smoking and an increase in the risk of adenoidectomy or tonsillectomy among children.

Respiratory Symptoms and Prevalent Asthma in School-Age Children

6. The evidence is sufficient to infer a causal relationship between parental smoking and cough, phlegm, wheeze, and breathlessness among children of school age.

7. The evidence is sufficient to infer a causal relationship between parental smoking and ever having asthma among children of school age.

Childhood Asthma Onset

8. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and the onset of wheeze illnesses in early childhood.

9. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and the onset of childhood asthma.

Atopy

10. The evidence is inadequate to infer the presence or absence of a causal relationship between parental smoking and the risk of immunoglobulin E-mediated allergy in their children.

Lung Growth and Pulmonary Function

11. The evidence is sufficient to infer a causal relationship between maternal smoking during pregnancy and persistent adverse effects on lung function across childhood.

12. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke after birth and a lower level of lung function during childhood.

Chapter 7. Cancer Among Adults from Exposure to Secondhand Smoke

Lung Cancer

1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and lung cancer among lifetime nonsmokers. This conclusion extends to all secondhand smoke exposure, regardless of location.

2. The pooled evidence indicates a 20 to 30 percent increase in the risk of lung cancer from secondhand smoke exposure associated with living with a smoker.

Breast Cancer

3. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke and breast cancer.

Nasal Sinus Cavity and Nasopharyngeal Carcinoma

4. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and a risk of nasal sinus cancer among nonsmokers.

5. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and a risk of nasopharyngeal carcinoma among nonsmokers.

Cervical Cancer

6. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and the risk of cervical cancer among lifetime nonsmokers.

Chapter 8. Cardiovascular Diseases from Exposure to Secondhand Smoke

1. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and increased risks of coronary heart disease morbidity and mortality among both men and women.

2. Pooled relative risks from meta-analyses indicate a 25 to 30 percent increase in the risk of coronary heart disease from exposure to secondhand smoke.

3. The evidence is suggestive but not sufficient to infer a causal relationship between exposure to secondhand smoke and an increased risk of stroke.

4. Studies of secondhand smoke and subclinical vascular disease, particularly carotid arterial wall thickening, are suggestive but not sufficient to infer a causal relationship between exposure to secondhand smoke and atherosclerosis.

Chapter 9. Respiratory Effects in Adults from Exposure to Secondhand Smoke

Odor and Irritation

1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and odor annoyance.

2. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and nasal irritation.

3. The evidence is suggestive but not sufficient to conclude that persons with nasal allergies or a history of respiratory illnesses are more susceptible to developing nasal irritation from secondhand smoke exposure.

Respiratory Symptoms

4. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and acute respiratory symptoms including cough, wheeze, chest tightness, and difficulty breathing among persons with asthma.

5. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and acute respiratory symptoms including cough, wheeze, chest tightness, and difficulty breathing among healthy persons.

6. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and chronic respiratory symptoms.

Lung Function

7. The evidence is suggestive but not sufficient to infer a causal relationship between short-term secondhand smoke exposure and an acute decline in lung function in persons with asthma.

8. The evidence is inadequate to infer the presence or absence of a causal relationship between short-term secondhand smoke exposure and an acute decline in lung function in healthy persons.

9. The evidence is suggestive but not sufficient to infer a causal relationship between chronic secondhand smoke exposure and a small decrement in lung function in the general population.

10. The evidence is inadequate to infer the presence or absence of a causal relationship between chronic secondhand smoke exposure and an accelerated decline in lung function.

Asthma

11. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and adult-onset asthma.

12. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and a worsening of asthma control.

Chronic Obstructive Pulmonary Disease

13. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and risk for chronic obstructive pulmonary disease.

14. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and morbidity in persons with chronic obstructive pulmonary disease.

Chapter 10. Control of Secondhand Smoke Exposure

1. Workplace smoking restrictions are effective in reducing secondhand smoke exposure.

2. Workplace smoking restrictions lead to less smoking among covered workers.

3. Establishing smoke-free workplaces is the only effective way to ensure that secondhand smoke exposure does not occur in the workplace.

4. The majority of workers in the United States are now covered by smoke-free policies.

5. The extent to which workplaces are covered by smoke-free policies varies among worker groups, across states, and by sociodemographic factors. Workplaces related to the entertainment and hospitality industries have notably high potential for secondhand smoke exposure.

6. Evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry.

7. Evidence suggests that exposure to secondhand smoke varies by ethnicity and gender.

8. In the United States, the home is now becoming the predominant location for exposure of children and adults to secondhand smoke.

9. Total bans on indoor smoking in hospitals, restaurants, bars, and offices substantially reduce secondhand smoke exposure, up to several orders of magnitude with incomplete compliance, and with full compliance, exposures are eliminated.

10. Exposures of nonsmokers to secondhand smoke cannot be controlled by air cleaning or mechanical air exchange.

Methodologic Issues

Much of the evidence on the health effects of involuntary smoking comes from observational epidemiologic studies that were carried out to test hypotheses related to secondhand smoke and risk for diseases and other adverse health effects. The challenges faced in carrying out these studies reflect those of observational research generally: assessment of the relevant exposures and outcomes with sufficient validity and precision, selection of an appropriate study design, identification of an appropriate and sufficiently large study population, and collection of information on other relevant factors that may confound or modify the association being studied. The challenge of accurately classifying secondhand smoke exposures confronts all studies of such exposures, and consequently the literature on approaches to and limitations of exposure classification is substantial. Sources of bias that can affect the findings of epidemiologic studies have been widely discussed (Rothman and Greenland 1998), both in general and in relation to studies of involuntary smoking. Concerns about bias apply to any study of an environmental agent and disease risk: misclassification of exposures or outcomes, confounding effect modification, and proper selection of study participants. In addition, the generalizability of findings from one population to another (external validity) further determines the value of evidence from a study. Another methodologic concern affecting secondhand smoke literature comes from the use of meta-analysis to combine the findings of epidemiologic studies; general concerns related to the use of meta-analysis for observational data and more specific concerns related to involuntary smoking have also been raised. This chapter considers these methodologic issues in anticipation of more specific treatment in the following chapters.

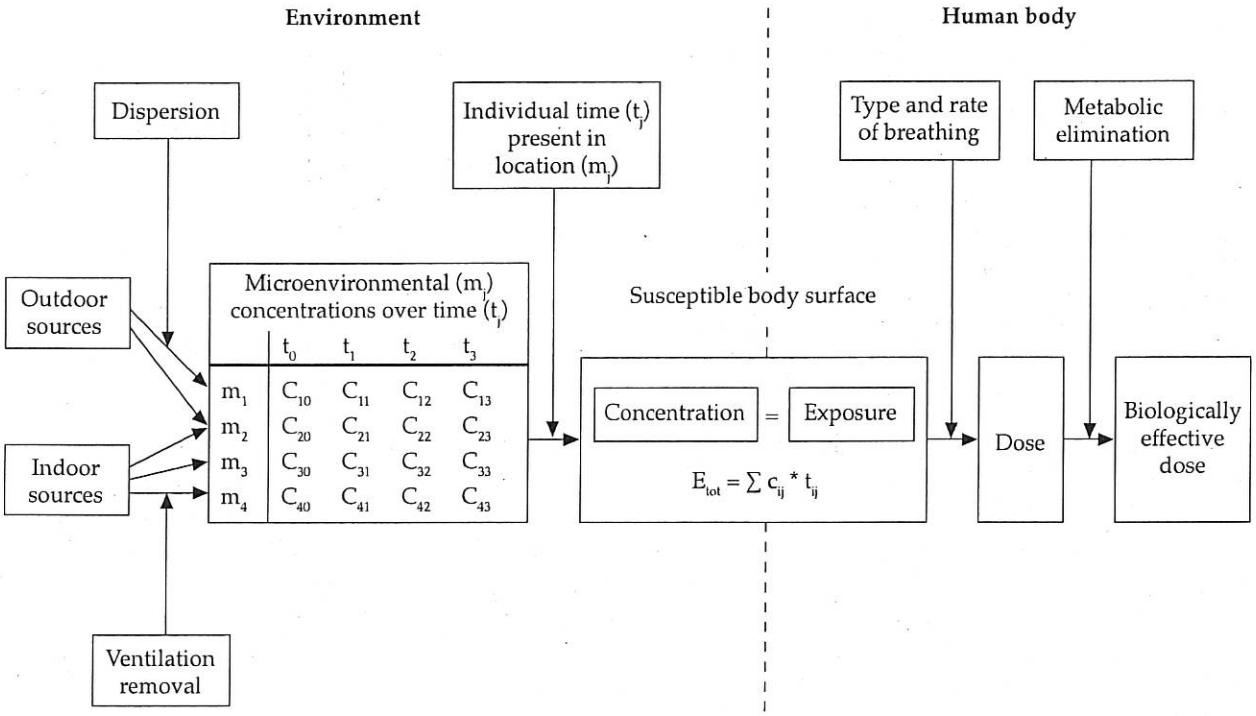
Classification of Secondhand Smoke Exposure

For secondhand smoke, as for any environmental factor that may be a cause of disease, the exposure assessment might encompass the time and place of the exposure, cumulative exposures, exposure during a particular time, or a recent exposure (Jaakkola and Jaakkola 1997; Jaakkola and Samet 1999). For example, exposures to secondhand smoke across the full life span may be of interest for lung cancer, while only more recent exposures may be relevant to the exacerbation of asthma. For CHD, both temporally remote and current exposures may affect risk. Assessments of exposures are further complicated by the multiplicity of environments where exposures take place and the difficulty of characterizing the exposure in some locations, such as public places or workplaces. Additionally, exposures probably vary qualitatively and quantitatively over time and across locations because of temporal changes and geographic differences in smoking patterns.

Nonetheless, researchers have used a variety of approaches for exposure assessments in epidemiologic studies of adverse health effects from involuntary smoking. Several core concepts that are fundamental to these approaches are illustrated in Figure 1.1 (Samet and Jaakkola 1999). Cigarette smoking is, of course, the source of most secondhand smoke in the United States, followed by pipes, cigars, and other products. Epidemiologic studies generally focus on assessing the exposure, which is the contact with secondhand smoke. The concentrations of secondhand smoke components in a space depend on the number of smokers and the rate at which they are smoking, the volume into which the smoke is distributed, the rate at which the air in the space exchanges with uncontaminated air, and the rate at which the secondhand smoke is removed from the air. Concentration, exposure, and dose differ in their definitions, although the terms are sometimes used without sharp distinctions. However, surrogate indicators that generally describe a source of exposure may also be used to assess the exposure, such as marriage to a smoker or the number of cigarettes smoked in the home. Biomarkers can provide an indication of an exposure or possibly the dose, but for secondhand smoke they are used for recent exposure only.

People are exposed to secondhand smoke in a number of different places, often referred to as "microenvironments" (NRC 1991). A microenvironment is a definable location that has a constant concentration of the contaminant of interest, such as secondhand smoke, during the time that a person is there. Some key microenvironments for secondhand smoke include the home, the workplace, public places, and transportation environments (Klepeis 1999). Based

Figure 1.1 The determinants of exposure, dose, and biologically effective dose that underlie the development of health effects from smoking



Source: Samet and Jaakkola 1999. Reprinted with permission.

on the microenvironmental model, total exposure can be estimated as the weighted average of the concentrations of secondhand smoke or indicator compounds, such as nicotine, in the microenvironments where time is spent; the weights are the time spent in each microenvironment. Klepeis (1999) illustrates the application of the microenvironmental model with national data from the National Human Activity Pattern Survey conducted by the EPA. His calculations yield an overall estimate of exposure to airborne particles from smoking and of the contributions to this exposure from various microenvironments.

Much of the epidemiologic evidence addresses the consequences of an exposure in a particular microenvironment, such as the home (spousal smoking and lung cancer risk or maternal smoking and risk for asthma exacerbation), or the workplace (exacerbation of asthma by the presence of smokers). Some studies have attempted to cover multiple microenvironments and to characterize exposures over time. For example, in the multicenter study of secondhand smoke exposure and lung cancer carried out in the United States, Fontham and colleagues (1994) assessed exposures during childhood, in workplaces, and at home during adulthood. Questionnaires that assess exposures have been the primary tool used in epidemiologic studies of secondhand smoke and disease. Measurement of biomarkers has been added in some studies, either as an additional and complementary exposure assessment approach or for validating questionnaire responses. Some studies have also measured components of secondhand smoke in the air.

Questionnaires generally address sources of exposure in microenvironments and can be tailored to address the time period of interest. Questionnaires represent the only approach that can be used to assess exposures retrospectively over a life span, because available biomarkers only reflect exposures

1-28

over recent days or, at most, weeks. Questionnaires on secondhand smoke exposure have been assessed for their reliability and validity, generally based on comparisons with either biomarker or air monitoring data as the "gold" standard (Jaakkola and Jaakkola 1997). Two studies evaluated the reliability of questionnaires on lifetime exposures (Pron et al. 1988; Coultas et al. 1989). Both showed a high degree of repeatability for questions concerning whether a spouse had smoked, but a lower reliability for responses concerning the quantitative aspects of an exposure. Emerson and colleagues (1995) evaluated the repeatability of information from parents of children with asthma. They found a high reliability for parent-reported tobacco use and for the number of cigarettes to which the child was exposed in the home during the past week.

To assess validity, questionnaire reports of current or recent exposures have been compared with levels of cotinine and other biomarkers. These studies tend to show a moderate correlation between levels of cotinine and questionnaire indicators of exposures (Kawachi and Colditz 1996; Cal/EPA 1997; Jaakkola and Jaakkola 1997). However, cotinine levels reflect not only exposure but metabolism and excretion (Benowitz 1999). Consequently, exposure is only one determinant of variation in cotinine levels among persons; there also are individual variations in metabolism and excretion rates. In spite of these sources of variability, mean levels of cotinine vary as anticipated across categories of self-reported exposures (Cal/EPA 1997; Jaakkola and Jaakkola 1997), and self-reported exposures are moderately associated with measured levels of markers (Cal/EPA 1997; Jaakkola and Jaakkola 1997).

Biomarkers are also used for assessing exposures to secondhand smoke. A number of biomarkers are available, but they vary in their specificity and in the dynamics of the temporal relationship between the exposure and the marker level (Cal/EPA 1997; Benowitz 1999). These markers include specific tobacco smoke components (nicotine) or metabolites (cotinine and tobacco-specific nitrosamines), nonspecific biomarkers (thiocyanate and CO), adducts with tobacco smoke components or metabolites (4-aminobiphenyl–hemoglobin adducts, benzo[*a*]pyrene–DNA adducts, and polycyclic aromatic hydrocarbon–albumin adducts), and nonspecific assays (urinary mutagenicity). Cotinine has been the most widely used biomarker, primarily because of its specificity, half-life, and ease of measurement in body fluids (e.g., urine, blood, and saliva). Biomarkers are discussed in detail in Chapter 3 (Assessment of Exposure to Secondhand Smoke).

Some epidemiologic studies have also incorporated air monitoring, either direct personal sampling or the indirect approach based on the microenvironmental model. Nicotine, present in the gas phase of secondhand smoke, can be monitored passively with a special filter or actively using a pump and a sorbent. Hammond and Leaderer (1987) first described a diffusion monitor for the passive sampling of nicotine in 1987; this device has now been widely used to assess concentrations in different environments and to study health effects. Airborne particles have also been measured using active monitoring devices.

Each of these approaches for assessing exposures has strengths and limitations, and preference for one over another will depend on the research question and its context (Jaakkola and Jaakkola 1997; Jaakkola and Samet 1999). Questionnaires can be used to characterize sources of exposures, such as smoking by parents. With air concentrations of markers and time-activity information, estimates of secondhand smoke exposures can be made with the microenvironmental model. Biomarkers provide exposure measures that reflect the patterns of exposure and the kinetics of the marker; the cotinine level in body fluids, for example, reflects an exposure during several days. Air monitoring may be useful for validating measurements of exposure. Exposure assessment strategies are matched to the research question and often employ a mixture of approaches determined by feasibility and cost constraints.

Misclassification of Secondhand Smoke Exposure

Misclassification may occur when classifying exposures, outcomes, confounding factors, or modifying factors. Misclassification may be differential on either exposure or outcome, or it may be random (Armstrong et al. 1992). Differential or nonrandom misclassification may either increase or decrease estimates of effect, while random misclassification tends to reduce the apparent effect and weaken the relationship of exposure with disease risk. In studies of secondhand smoke and disease risk, exposure misclassification has been a major consideration in the interpretation of the evidence, although misclassification of health outcome measures has not been a substantial issue in this research. The consequences for epidemiologic studies of misclassification in general are well established (Rothman and Greenland 1998).

An extensive body of literature on the classification of exposures to secondhand smoke is reviewed in this and other chapters, as well as in some publications on the consequences of misclassification (Wu 1999). Two general patterns of exposure misclassification are of concern to secondhand smoke: (1) random misclassification that is not differential by the presence or absence of the health outcome and (2) systematic misclassification that is differential by the health outcome. In studying the health effects of secondhand smoke in adults, there is a further concern as to the classification of the active smoking status (never, current, or former smoking); in studies of children, the accuracy of secondhand smoke exposure classification is the primary methodologic issue around exposure assessment, but unreported active smoking by adolescents is also a concern.

With regard to random misclassification of secondhand smoke exposures, there is an inherent degree of unavoidable measurement error in the exposure measures used in epidemiologic studies. Questionnaires generally assess contact with sources of an exposure (e.g., smoking in the home or workplace) and cannot capture all exposures nor the intensity of exposures; biomarkers provide an exposure index for a particular time window and have intrinsic variability. Some building-related factors that determine an exposure cannot be assessed accurately by a questionnaire, such as the rate of air exchange and the size of the microenvironment where time is spent, nor can concentrations be assessed accurately by subjective reports of the perceived level of tobacco smoke. In general, random misclassification of exposures tends to reduce the likelihood that studies of secondhand smoke exposure will find an effect. This type of misclassification lessens the contrast between exposure groups, because some truly exposed persons are placed in the unexposed group and some truly unexposed persons are placed in the exposed group. Differential misclassification, also a concern, may increase or decrease associations, depending on the pattern of misreporting.

One particular form of misclassification has been raised with regard to secondhand smoke exposure and lung cancer: the classification of some current or former smokers as lifetime nonsmokers (USEPA 1992; Lee and Forey 1995; Hackshaw et al. 1997; Wu 1999). The resulting bias would tend to increase the apparent association of secondhand smoke with lung cancer, if the misclassified active smokers are also more likely to be classified as involuntary smokers. Most studies of lung cancer and secondhand smoke have used spousal smoking as a main exposure variable. As smoking tends to aggregate between spouses (smokers are more likely to marry smokers), misclassification of active smoking would tend to be differential on the basis of spousal smoking (the exposure under investigation). Because active smoking is strongly associated with increased disease risk, greater misclassification of an actively smoking spouse as a nonsmoker among spouses of smokers compared with spouses of nonsmokers would lead to risk estimates for spousal smoking that are biased upward by the effect of active smoking. This type of misclassification is also relevant to studies of spousal exposure and CHD risk or other diseases also caused by active smoking, although the potential for bias is less because the association of active smoking with CHD is not as strong as with lung cancer.

There have been a number of publications on this form of misclassification. Wu (1999) provides a review, and Lee and colleagues (2001) offer an assessment of potential consequences. A number of models have been developed to assess the extent of bias resulting from the misclassification of active smokers as lifetime nonsmokers (USEPA 1992; Hackshaw et al. 1997). These models incorporate estimates of the rate of misclassification, the degree of aggregation of smokers by marriage, the prevalence of smoking in the population, and the risk of lung cancer in misclassified smokers (Wu 1999). Although debate about this issue continues, analyses show that estimates of upward bias from misclassifying active smokers as lifetime nonsmokers cannot fully explain the observed increase in risk for lung cancer among lifetime nonsmokers married to smokers (Hackshaw et al. 1997; Wu 1999).

There is one additional issue related to exposure misclassification. During the time the epidemiologic studies of secondhand smoke have been carried out, exposure has been widespread and almost unavoidable. Therefore, the risk estimates may be biased downward because there are no truly unexposed persons. The 1986 Surgeon General's report recognized this methodologic issue and noted the need for further data on population exposures to secondhand smoke (USDHHS 1986). This bias was also recognized in the 1986 report of the NRC, and an adjustment for this misclassification was made to the lung cancer estimate (NRC 1986). Similarly, the 1992 report of the EPA commented on background exposure and made an adjustment (USEPA 1992). Some later studies have attempted to address this issue; for example, in a case-control study of active and involuntary smoking and breast cancer in Switzerland, Morabia and colleagues (2000) used a questionnaire to assess exposure and

1-3D

identified a small group of lifetime nonsmokers who also reported no exposure to secondhand smoke. With this subgroup of controls as the reference population, the risks of secondhand smoke exposure were substantially greater for active smoking than when the full control population was used.

This Surgeon General's report further addresses specific issues of exposure misclassification when they are relevant to the health outcome under consideration.

Use of Meta-Analysis

Meta-analysis refers to the process of evaluating and combining a body of research literature that addresses a common question. Meta-analysis is composed of qualitative and quantitative components. The qualitative component involves the systematic identification of all relevant investigations, a systematic assessment of their characteristics and quality, and the decision to include or exclude studies based on predetermined criteria. Consideration can be directed toward sources of bias that might affect the findings. The quantitative component involves the calculation and display of study results on common scales and, if appropriate, the statistical combination of these results across studies and an exploration of the reasons for any heterogeneity of findings. Viewing the findings of all studies as a single plot provides insights into the consistency of results and the precision of the studies considered. Most meta-analyses are based on published summary results, although they are most powerful when applied to data at the level of individual participants. Meta-analysis is most widely used to synthesize evidence from randomized clinical trials, sometimes yielding findings that were not evident from the results of individual studies. Meta-analysis also has been used extensively to examine bodies of observational evidence.

Beginning with the 1986 NRC report, meta-analysis has been used to summarize the evidence on involuntary smoking and health. Meta-analysis was central to the 1992 EPA risk assessment of secondhand smoke, and a series of meta-analyses supported the conclusions of the 1998 report of the Scientific Committee on Tobacco and Health in the United Kingdom. The central role of meta-analysis in interpreting and applying the evidence related to involuntary smoking and disease has led to focused criticisms of the use of meta-analysis in this context. Several papers that acknowledged support from the tobacco industry have addressed the epidemiologic findings for lung cancer, including the selection and quality of the studies, the methods for meta-analysis, and dose-response associations (Fleiss and Gross 1991; Tweedie and Mengersen 1995; Lee 1998, 1999). In a lawsuit brought by the tobacco industry against the EPA, the 1998 decision handed down by Judge William L. Osteen, Sr., in the North Carolina Federal District Court criticized the approach EPA had used to select studies for its meta-analysis and criticized the use of 90 percent rather than 95 percent confidence intervals for the summary estimates (*Flue-Cured Tobacco Cooperative Stabilization Corp. v. United States Environmental Protection Agency*, 857 F. Supp. 1137 [M.D.N.C. 1993]). In December 2002, the 4th U.S. Circuit Court of Appeals threw out the lawsuit on the basis that tobacco companies cannot sue the EPA over its secondhand smoke report because the report was not a final agency action and therefore not subject to court review (*Flue-Cured Tobacco Cooperative Stabilization Corp. v. The United States Environmental Protection Agency*, No. 98-2407 [4th Cir., December 11, 2002], *cited in* 17.7 TPLR 2.472 [2003]).

Recognizing that there is still an active discussion around the use of meta-analysis to pool data from observational studies (versus clinical trials), the authors of this Surgeon General's report used this methodology to summarize the available data when deemed appropriate and useful, even while recognizing that the uncertainty around the meta-analytic estimates may exceed the uncertainty indicated by conventional statistical indices, because of biases either within the observational studies or produced by the manner of their selection. However, a decision to not combine estimates might have produced conclusions that are far more uncertain than the data warrant because the review would have focused on individual study results without considering their overall pattern, and without allowing for a full accounting of different sample sizes and effect estimates.

The possibility of publication bias has been raised as a potential limitation to the interpretation of evidence on involuntary smoking and disease in general, and on lung cancer and secondhand smoke exposure specifically. A 1988 paper by Vandenbroucke used a descriptive approach, called a "funnel plot," to assess the possibility that publication bias affected the 13 studies considered in a review by Wald and colleagues (1986). This type of plot characterizes the relationship between the magnitude of estimates and their precision. Vandenbroucke suggested the possibility of publication bias only in reference to the studies of men. Bero and colleagues (1994) concluded that there

had not been a publication bias against studies with statistically significant findings, nor against the publication of studies with nonsignificant or mixed findings in the research literature. The researchers were able to identify only five unpublished "negative" studies, of which two were dissertations that tend to be delayed in publication. A subsequent study by Misakian and Bero (1998) did find a delay in the publication of studies with nonsignificant results in comparison with studies having significant results; whether this pattern has varied over the several decades of research on secondhand smoke was not addressed. More recently, Copas and Shi (2000) assessed the 37 studies considered in the meta-analysis by Hackshaw and colleagues (1997) for publication bias. Copas and Shi (2000) found a significant correlation between the estimated risk of exposure and sample size, such that smaller studies tended to have higher values. This pattern suggests the possibility of publication bias. However, using a funnel plot of the same studies, Lubin (1999) found little evidence for publication bias.

On this issue of publication bias, it is critical to distinguish between indirect statistical arguments and arguments based on actual identification of previously unidentified research. The strongest case against substantive publication bias has been made by researchers who mounted intensive efforts to find the possibly missing studies; these efforts have yielded little—nothing that would alter published conclusions (Bero et al. 1994; Glantz 2000). Presumably because this exposure is a great public health concern, the findings of studies that do not have statistically significant outcomes continue to be published (Kawachi and Colditz 1996).

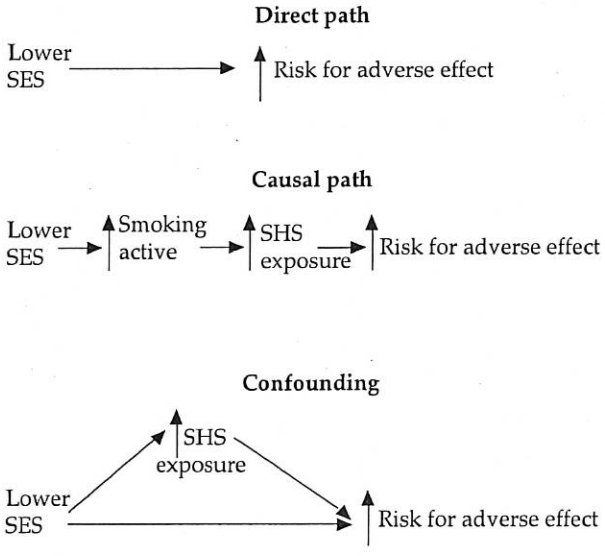
The quantitative results of the meta-analyses, however, were not determinate in making causal inferences in this Surgeon General's report. In particular, the level of statistical significance of estimates from the meta-analyses was not a predominant factor in making a causal conclusion. For that purpose, this report relied on the approach and criteria set out in the 1964 and 2004 reports of the Surgeon General, which involved judgments based on an array of quantitative and qualitative considerations that included the degree of heterogeneity in the designs of the studies that were examined. Sometimes this heterogeneity limits the inference from meta-analysis by weakening the rationale for pooling the study results. However, the availability of consistent evidence from heterogenous designs can strengthen the meta-analytic findings by making it unlikely that a common bias could persist across different study designs and populations.

Confounding

Confounding, which refers in this context to the mixing of the effect of another factor with that of secondhand smoke, has been proposed as an explanation for associations of secondhand smoke with adverse health consequences. Confounding occurs when the factor of interest (secondhand smoke) is associated in the data under consideration with another factor (the confounder) that, by itself, increases the risk for the disease (Rothman and Greenland 1998). Correlates of secondhand smoke exposures are not confounding factors unless an exposure to them increases the risk of disease. A factor proposed as a potential confounder is not necessarily an actual confounder unless it fulfills the two elements of the definition. Although lengthy lists of potential confounding factors have been offered as alternatives to direct associations of secondhand smoke exposures with the risk for disease, the factors on these lists generally have not been shown to be confounding in the particular data of interest.

The term confounding also conveys an implicit conceptualization as to the causal pathways that link secondhand smoke and the confounding factor to

Figure 1.2 Model for socioeconomic status (SES) and secondhand smoke (SHS) exposure



Arrows indicate directionality of association.

disease risk. Confounding implies that the confounding factor has an effect on risk that is independent of secondhand smoke exposure. Some factors considered as potential confounders may, however, be in the same causal pathway as a secondhand smoke exposure. Although socioeconomic status (SES) is often cited as a potential confounding factor, it may not have an independent effect but can affect disease risk through its association with secondhand smoke exposure (Figure 1.2). This figure shows general alternative relationships among SES, secondhand smoke exposure, and risk for an adverse effect. SES may have a direct effect, or it may indirectly exert its effect through an association with secondhand smoke exposure, or it may confound the relationship between secondhand smoke exposure and disease risk. To control for SES as a potential confounding factor without considering underlying relationships may lead to incorrect risk estimates. For example, controlling for SES would not be appropriate if it is a determinant of secondhand smoke exposure but has no direct effect.

Nonetheless, because the health effects of involuntary smoking have other causes, the possibility of confounding needs careful exploration when assessing associations of secondhand smoke exposure with adverse health effects. In addition, survey data from the last several decades show that secondhand smoke exposure is associated with correlates of lifestyle that may influence the risk for some health effects, thus increasing concerns for the possibility of confounding (Kawachi and Colditz 1996). Survey data from the United States (Matanoski et al. 1995) and the United Kingdom (Thornton et al. 1994) show that adults with secondhand smoke exposures generally tend to have less healthful lifestyles. However, the extent to which these patterns of association can be generalized, either to other countries or to the past, is uncertain.

The potential bias from confounding varies with the association of the confounder to secondhand smoke exposures in a particular study and to the strength of the confounder as a risk factor. The importance of confounding to the interpretation of evidence depends further on the magnitude of the effect of secondhand smoke on disease. As the strength of an association lessens, confounding as an alternative explanation for an association becomes an increasing concern. In prior reviews, confounding has been addressed either quantitatively (Hackshaw et al. 1997) or qualitatively (Cal/EPA 1997; Thun et al. 1999). In the chapters in this report that focus on specific diseases, confounding is specifically addressed in the context of potential confounding factors for the particular diseases.

Tobacco Industry Activities

The evidence on secondhand smoke and disease risk, given the public health and public policy implications, has been reviewed extensively in the published peer-reviewed literature and in evaluations by a number of expert panels. In addition, the evidence has been criticized repeatedly by the tobacco industry and its consultants in venues that have included the peer-reviewed literature, public meetings and hearings, and scientific symposia that included symposia sponsored by the industry. Open criticism in the peer-reviewed literature can strengthen the credibility of scientific evidence by challenging researchers to consider the arguments proposed by critics and to rebut them.

Industry documents indicate that the tobacco industry has engaged in widespread activities, however, that have gone beyond the bounds of accepted scientific practice (Glantz 1996; Ong and Glantz 2000, 2001; Rampton and Stauber 2000; Yach and Bialous 2001; Hong and Bero 2002; Diethelm et al. 2004). Through a variety of organized tactics, the industry has attempted to undermine the credibility of the scientific evidence on secondhand smoke. The industry has funded or carried out research that has been judged to be biased, supported scientists to generate letters to editors that criticized research publications, attempted to undermine the findings of key studies, assisted in establishing a scientific society with a journal, and attempted to sustain controversy even as the scientific community reached consensus (Garne et al. 2005). These tactics are not a topic of this report, but to the extent that the scientific literature has been distorted, they are addressed as the evidence is reviewed. This report does not specifically identify tobacco industry sponsorship of publications unless that information is relevant to the interpretation of the findings and conclusions.

A Vision for the Future

This country has experienced a substantial reduction of involuntary exposure to secondhand tobacco smoke in recent decades. Significant reductions in the rate of smoking among adults began even earlier. Consequently, about 80 percent of adults are now nonsmokers, and many adults and children can live their daily lives without being exposed to secondhand smoke. Nevertheless, involuntary exposure to secondhand smoke remains a serious public health hazard.

This report documents the mounting and now substantial evidence characterizing the health risks caused by exposure to secondhand smoke. Multiple major reviews of the evidence have concluded that secondhand smoke is a known human carcinogen, and that exposure to secondhand smoke causes adverse effects, particularly on the cardiovascular system and the respiratory tract and on the health of those exposed, children as well as adults. Unfortunately, reductions in exposure have been slower among young children than among adults during the last decade, as expanding workplace restrictions now protect the majority of adults while homes remain the most important source of exposure for children.

Clearly, the social norms regarding secondhand smoke have changed dramatically, leading to widespread support over the past 30 years for a society free of involuntary exposures to tobacco smoke. In the first half of the twentieth century smoking was permitted in almost all public places, including elevators and all types of public transportation. At the time of the 1964 Surgeon General's report on smoking and health (U.S. Department of Health, Education, and Welfare [USDHEW] 1964), many physicians were still smokers, and the tables in U.S. Public Health Service (PHS) meeting rooms had PHS ashtrays on them. A thick, smoky haze was an accepted part of presentations at large meetings, even at medical conferences and in the hospital environment.

As the adverse health consequences of active smoking became more widely documented in the 1960s, many people began to question whether exposure of nonsmokers to secondhand smoke also posed a serious health risk. This topic was first addressed in this series of reports by Surgeon General Jesse Steinfeld in the 1972 report to Congress (USDHEW 1972). During the 1970s, policy changes to provide smoke-free environments received more widespread consideration. As the public policy debate grew and expanded in the 1980s, the scientific evidence on the risk of adverse effects from exposure to secondhand smoke was presented in a comprehensive context for the first time by Surgeon General C. Everett Koop in the 1986 report, *The Health Consequences of Involuntary Smoking* (U.S. Department of Health and Human Services [USDHHS] 1986).

The ever-increasing momentum for smoke-free indoor environments has been driven by scientific evidence on the health risks of involuntary exposure to secondhand smoke. This new Surgeon General's report is based on a far larger body of evidence than was available in 1986. The evidence reviewed in this report confirms the findings of the 1986 report and adds new causal conclusions. The growing body of data increases support for the conclusion that exposure to secondhand smoke causes lung cancer in lifetime nonsmokers. In addition to epidemiologic data, this report presents converging evidence that the mechanisms by which secondhand smoke causes lung cancer are similar to those that cause lung cancer in active smokers. In the context of the risks from active smoking, the lung cancer risk that secondhand smoke exposure poses to nonsmokers is consistent with an extension to involuntary smokers of the dose-response relationship for active smokers.

Cardiovascular effects of even short exposures to secondhand smoke are readily measurable, and the risks for cardiovascular disease from involuntary smoking appear to be about 50 percent less than the risks for active smokers. Although the risks from secondhand smoke exposures are larger than anticipated, research on the mechanisms by which tobacco smoke exposure affects the cardiovascular system supports the plausibility of the findings of epidemiologic studies (the 1986 report did not address cardiovascular disease). This 2006 report also reviews the evidence on the multiple mechanisms by which secondhand smoke injures the respiratory tract and causes sudden infant death syndrome.

Since 1986, the attitude of the public toward and the social norms around secondhand smoke exposure have changed dramatically to reflect a growing viewpoint that the involuntary exposure of nonsmokers to secondhand smoke is unacceptable. As a result, increasingly strict public policies to control involuntary exposure to secondhand smoke have been put in

place. The need for restrictions on smoking in enclosed public places is now widely accepted in the United States. A growing number of communities, counties, and states are requiring smoke-free environments for nearly all enclosed public places, including all private worksites, restaurants, bars, and casinos.

As knowledge about the health risks of secondhand smoke exposure grows, investigators continue to identify additional scientific questions.

- Because active smoking is firmly established as a causal factor of cancer for a large number of sites, and because many scientists assert that there may be no threshold for carcinogenesis from tobacco smoke exposure, researchers hypothesize that people who are exposed to secondhand smoke are likely to be at some risk for the same types of cancers that have been established as smoking-related among active smokers.

- The potential risks for stroke and subclinical vascular disease from secondhand smoke exposure require additional research.

- There is a need for additional research on the etiologic relationship between secondhand smoke exposure and several respiratory health outcomes in adults, including respiratory symptoms, declines in lung function, and adult-onset asthma.

- There is also a need for research to further evaluate the adverse reproductive outcomes and childhood respiratory effects from both prenatal and postnatal exposure to secondhand smoke.

- Further research and improved methodologies are also needed to advance an understanding of the potential effects on cognitive, behavioral, and physical development that might be related to early exposures to secondhand smoke.

As these and other research questions are addressed, the scientific literature documenting the adverse health effects of exposure to secondhand smoke will expand. Over the past 40 years since the release of the landmark 1964 report of the Surgeon General's Advisory Committee on Smoking and Health (USDHEW 1964), researchers have compiled an ever-growing list of adverse health effects caused by exposure to tobacco smoke, with evidence that active smoking causes damage to virtually every organ of the body (USDHHS 2004). Similarly, since the 1986 report (USDHHS 1986), the number of adverse health effects caused by exposure to secondhand smoke has also expanded. Following the format of the electronic database released with the 2004 report, the research findings supporting the conclusions in this report will be accessible in a database that can be found at http://www.cdc.gov/tobacco. With an this expanding base of scientific knowledge, the list of adverse health effects caused by exposure to secondhand smoke will likely increase.

Biomarker data from the 2005 *Third National Report on Human Exposure to Environmental Chemicals* document great progress since the 1986 report in reducing the involuntary exposure of nonsmokers to secondhand smoke (CDC 2005). Between the late 1980s and 2002, the median cotinine level (a metabolite of nicotine) among nonsmokers declined by more than 70 percent. Nevertheless, many challenges remain to maintain the momentum toward universal smoke-free environments. First, there is a need to continue and even improve the surveillance of sources and levels of exposure to secondhand smoke. The data from the 2005 exposure report show that median cotinine levels among children are more than twice those of nonsmoking adults, and non-Hispanic Blacks have levels more than twice those of Mexican Americans and non-Hispanic Whites (CDC 2005). The multiple factors related to these disparities in median cotinine levels among nonsmokers need to be identified and addressed. Second, the data from the 2005 exposure report suggest that the scientific community should sustain the current momentum to reduce exposures of nonsmokers to secondhand smoke (CDC 2005). Research reviewed in this report indicates that policies creating completely smoke-free environments are the most economical and efficient approaches to providing this protection. Additionally, neither central heating, ventilating, and air conditioning systems nor separately ventilated rooms control exposures to secondhand smoke. Unfortunately, data from the 2005 exposure report also emphasized that young children remain an exposed population (CDC 2005). However, more evidence is needed on the most effective strategies to promote voluntary changes in smoking norms and practices in homes and private automobiles. Finally, data on the health consequences of secondhand smoke exposures emphasize the importance of the role of health care professionals in this issue. They must assume a greater, more active involvement in reducing exposures, particularly for susceptible groups.

The findings and recommendations of this report can be extended to other countries and are supportive of international efforts to address the health effects of smoking and secondhand smoke exposure. There is an international consensus that exposure to secondhand smoke poses significant public health risks. The Framework Convention on Tobacco Control recognizes that protecting nonsmokers from involuntary exposures to secondhand smoke in public places should be an integral part of comprehensive national tobacco control policies and programs. Recent changes in national policies in countries such as Italy and Ireland reflect this growing international awareness of the need for additional protection of nonsmokers from involuntary exposures to secondhand smoke.

When this series of reports began in 1964, the majority of men and a substantial proportion of women were smokers, and most nonsmokers inevitably must have been involuntary smokers. With the release of the 1986 report, Surgeon General Koop noted that "the right of smokers to smoke ends where their behavior affects the health and well-being of others" (USDHHS 1986, p. xii). As understanding increases regarding health consequences from even brief exposures to secondhand smoke, it becomes even clearer that the health of nonsmokers overall, and particularly the health of children, individuals with existing heart and lung problems, and other vulnerable populations, requires a higher priority and greater protection.

Together, this report and the 2004 report of the Surgeon General, *The Health Consequences of Smoking* (USDHHS 2004), document the extraordinary threat to the nation's health from active and involuntary smoking. The recent reductions in exposures of nonsmokers to secondhand smoke represent significant progress, but involuntary exposures persist in many settings and environments. More evidence is needed to understand why this progress has not been equally shared across all populations and in all parts of this nation. Some states (California, Connecticut, Delaware, Maine, Massachusetts, New York, Rhode Island, and Washington) have met the *Healthy People 2010* objectives (USDHHS 2000) that protect against involuntary exposures to secondhand smoke through recommended policies, regulations, and laws, while many other parts of this nation have not (USDHHS 2000). Evidence presented in this report suggests that these disparities in levels of protection can be reduced or eliminated. Sustained progress toward a society free of involuntary exposures to secondhand smoke should remain a national public health priority.

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clean air KANSAS

SMOKE FREE EVERYONE HAS THE RIGHT TO BREATHE CLEAN AIR

Chairman Barnett and Members of the Committee,

I'm Joyce Morrison and I am here on behalf of Clean Air Kansas which is a grassroots campaign in support of a smoke free Kansas.

I'm originally from Iowa which is now smoke free. I attended college and worked in Nebraska which is now smoke free. I have family in Minnesota which is now smoke free. I vacation in Colorado which is now smoke free, but I live in Kansas which I wish was smoke free.

These other states have not collapsed under the weight of smoke free restrictions. Their businesses have not fled the borders. There is not a confusing hodgepodge of individual community smoking ordinances. These states are in fact, better, healthier places to be.

My desire for smoke free, indoor, PUBLIC PLACES AND WORKPLACES represents a majority view in Kansans which is confirmed by a survey done by the Kansas Sunflower Foundation.

It showed that **71% of Kansas voters overwhelming favor a statewide law prohibiting smoking in all indoor workplaces and public places.**

The survey respondents, **83% of them, believed second hand smoke is a health hazard**. I know it's a health hazard because I have asthma and I know the sensation when my asthma is triggered which feels like I am trying to breathe through a straw.

Everyone in Kansas, whether you work in a bar, restaurant, private club, business or public place, **deserves the right to breathe clean air.**

We urge you to approve a smoke free bill in Kansas that covers indoor, public places and workplaces.

www.cleanairkansas.org

Public Health and Welfare
Date: 01/27/09
Attachment: 2

Testimony Before the Senate Public Health and Welfare Committee

1:30 p.m., January 27, 2009
136-North, Kansas State Capitol

Testimony in Support of SB 25, Statewide Clean Indoor Air

Thomas Schultz, MD
Associate Professor
Associate Program Director, Internal Medicine Residency Program
The University of Kansas School of Medicine-Wichita

I am Tom Schultz, Associate Professor with the University of Kansas School of Medicine – Wichita. Thank you for allowing me the honor of testifying before you in support of Clean Indoor Air legislation. I promised not to read this testimony so as not to bore everyone to tears, but let me first dispense with the numbers:

- Lung cancer is the leading cause of cancer deaths in the US and in Kansas.
- In 2005, 1851 new cases of lung cancer were diagnosed in Kansas. In that same year, 1641 Kansans died of lung cancer.
- 80% of all lung cancers are caused by cigarette smoking, and 1-2% of all lung cancer deaths result from exposure to environmental tobacco smoke by non-smokers. In Kansas, this equates to 32 deaths per year.
- A woman who has never smoked has an estimated 24% greater risk of contracting lung cancer if she lives with a smoker.

And the citations:

- Secondhand smoke is classified as a "known human carcinogen" by the US Environmental Protection Agency, the US National Toxicology Program, and the International Agency for Research on Cancer, a branch of the WHO.
- The 2006 US Surgeon General's Report concluded that "the scientific evidence shows there is no safe level of exposure to secondhand smoke", and "the only way to fully protect non-smokers from exposure to secondhand smoke is to prevent all smoking in that indoor space or building. Separating smokers from non-smokers, cleaning the air, and ventilating buildings cannot keep non-smokers from being exposed to secondhand smoke."

That just covers lung cancer, not the chronic lung diseases such as asthma and COPD, which are significantly impacted by tobacco smoke exposure.

With all that being said, we all sometimes view numbers and statistics as dry and mundane: however, these data are anything but, as they directly relate to people, to Kansans.
If you look on the internet, you'll find sites disputing these statistics, and that Clean Indoor Air legislation amounts to "The Second Hand Smoke Attack on Smokers". I'm not here today to attack smokers, or to attack businesses where smoking is allowed. I'm here because as a cancer doctor, I see the effects of smoking on a daily basis, and I don't like what I see.

For example, last Friday I had to tell a vibrant 48 year-old that he has inoperable, incurable metastatic lung cancer. The obvious human tragedy aside, think about this in economic terms. This gentleman probably has 6 months to live. Consider the loss of productivity for this state in losing around 20 years of contributions to society. Additionally, it will cost an estimated $40,000 to treat his lung cancer.

True, he chose to smoke and has done so for 30 years. Even though I personally do not condone smoking, I would not seek to deny anyone the right to smoke. But what about those who choose not to smoke? Shouldn't they (and their children) have the right to go to public places and not worry about smoke exposure? Even if the data on secondhand smoke is marginalized by nitpickers, doesn't it just make sense that exposure to this is not healthy? Most forms of lung cancer are directly linked to smoking; one is not. So what about the non-smokers who get "smoker's" cancer?

How does that happen? Bad luck? Secondhand smoke? Around 30% of adenocarcinomas, usually thought to be associated with smoking, occur in non-smokers. Additionally, these individuals are often chastised by others, including fellow cancer patients, who think their cancer is their "fault" because they smoked. Unfortunately, this view is all too prevalent, as lung cancer does not enjoy the "celebrity" status of breast cancer because it is perceived as being caused by individual choices, i.e. the choice to smoke.
What can happen to people exposed to smoke in the workplace? My wife is a social worker, but she's also an excellent singer. For four years she sang in a smoky environment to help pay for college. She has never smoked a cigarette in her life, but much like a smoker, she always had a cough with black sputumen, one day that cough brought up blood. An x-ray showed a suspicious shadow, and a mass could not be excluded. Fortunately, the resulting CT scan was normal, and luckily it just turned out to be bronchitis.

In this case, a tragedy didn't happen, but sadly the outcome isn't always so good. This establishment is now smoke-free, and due to her new job she no longer sings there regularly, and she no longer coughs. Unfortunately, many workers don't have that choice, especially in these economic times where every job is precious.

Thank you for granting me the opportunity to express my views. I urge you to give your full consideration of this legislation. Its the right thing to do for Kansans.

Thomas K. Schulz, MD

Testimony Before the Senate Public Health and Welfare Committee

1:30 p.m., January 27, 2009

136-North, Kansas State Capitol

Testimony in Support of SB 25, Statewide Clean Indoor Air

Molly L. Johnson

Senior, University of Kansas, Lawrence, Kansas.

Mr. Chair and members of the committee, thank you for the opportunity to talk with you today in support of Statewide Clean Indoor Air, SB 25. I am here today because I care about my health and that of my generation. Between being a life long asthmatic and being involved with various health organizations I cannot remember a time when healthy living has not been a priority for me. Although I know there are some aspects of our environment and medical history that we cannot control, there certainly are areas where changes can be made in order to create healthier surroundings for everyone. One such area is creating policy that will improve the quality of air in indoor public settings by removing the health dangers caused by secondhand smoke. I was raised in a non-smoking home, by parents that were adamant about not subjecting me to smoky environments due to my medical condition. At restaurants we were always seated in non-smoking sections, but even that was not enough at times. I always had to carry an emergency inhaler because there was never a guarantee of not being exposed to smoke, even in non-smoking sections.

The Surgeon General has told us for many years that smoking causes cancer and being exposed to secondhand smoke has been proven to cause cancer as well. It does not take too long to notice the difference between smoke free communities and those that still allow smoking indoors. I grew up in Wichita, but moved to Lawrence for college. As I'm sure you all know Lawrence implemented an indoor smoking ban years ago, while Wichita has only done so recently and to a lesser degree. The affects of the clean indoor air in Lawrence had immediate results on my health, more so than I even expected or noticed until returning to Wichita during breaks. During one summer break I was able to find a job at a restaurant and bar in Wichita as a hostess that allowed smoking. I was lucky, I worked at the front door and was able to get fresh air constantly, so my asthma was not as much of a factor. But I also chose to work as a hostess instead of a server so I would not be subjected to constantly smoky air.

We teach our children not to smoke, that it's bad for you. It seems that if this is truly how society feels then much more effort needs to be put into creating public environments where smoke is not a factor. If someone wants to smoke it is their decision, but why do I also have to live with the implications of their decision? In my experiences it seems that if someone is exposed to smoking they are more apt to take up the behavior themselves. Although secondhand smoke causes harm to everyone, it is important to consider the effects of individuals in my age group. First, the people that typically have jobs in industries that allow smoking indoors are around my age. We are always told not

to smoke, but then are exposed to it the most at an age when we are making our own choices regarding our behaviors.

It is also important to consider the air quality in bars and clubs. It's no surprise that college students spend time in these places, and providing clean indoor air in these locations should also be a priority. The majority of people I know favor the smoking ban currently used in Lawrence because when you leave you don't reek of smoke and just feel better in general. I also feel it is important to note that even people I know who are smokers prefer and enjoy the indoor smoking ban because it just creates a better environment for everyone.

In closing I want to thank you for looking to the future, and creating change that will be beneficial both to my generation and Kansans in general. I believe it is my right to clean indoor air and I believe you have the power to assure that secondhand smoke will no longer continue to affect my health and that of my generation. Thank you.

Testimony Before the Senate Public Health and Welfare Committee

1:30 p.m., January 27, 2009

136-North, Kansas State Capitol

Testimony in Support of SB 25, Statewide Clean Indoor Air

Teresa L. Carter C.P.A.

Mid-Kansas Affiliate of Susan G. Komen for the Cure®

Mr. Chair and members of the committee, I am here today to provide testimony in support of SB 25. As president of the Mid-Kansas Affiliate of Susan G. Komen for the Cure® I daily encounter women whose lives are being turned upside down by the ravages of breast cancer. I have comforted women who have just received the life changing news of a breast cancer diagnoses. I have held the hand of breast cancer patients as they sat anxiously receiving toxic drugs to kill the cancer cells. I have cooked meals for families whose mothers and wives could no longer care for their family as the noxious drugs sapped their strength. I have comforted husbands as they accepted the fact that they were losing the woman they had planned to grow old with. I have stood at the bedside of my friend as breast cancer took her life, convinced to the end that it was environmental factors that triggered this disease in her body. I have cried with 800 other breast cancer survivors and their 9000 family members and friends at the Komen Wichita Race for the Cure®, as they celebrate their survival and mourned the loss of those who have lost the battle. And I have promised my daughter, who we adopted as an infant, that unlike her maternal birth grandmother who battled breast cancer, she will not have to. But the lack of a Kansas clean indoor air law makes that promise harder and harder to keep.

The Surgeon General has been telling us since I was 8 years old that smoking causes cancer. Smoking increases the risk of many cancers, but its effect on breast cancer is not yet completely known. So every day we do not have a clean indoor air act we continue to gamble with our daughters' health and allow them to be exposed to a known carcinogenic. Every time you allow your daughter to walk into an establishment that is not smoke free you expose her to an environmental toxin that may take her life in the future. The same kind of toxin that my friend feared had triggered her breast cancer and taken her life. We do not allow lead in paint because it might be ingested by a child and cause brain damage, but we allow smoke, that we know causes cancer, to be inhaled by that same child. Why?

I also stand before you today as an asthmatic. My asthma is not triggered by physical activity but is ALWAYS triggered by environmental factors. The two main triggers are ragweed and smoke. Mr. Chair, only God can control the ragweed, but you and this committee can control the smoke. My family and I currently have to make choices about where we go, where we eat and where we shop based on their smoking policy. Picture yourself having a nice dinner at your favorite restaurant and a lovely couple sits down at the table next to you. It doesn't take you long to realize he spilled the whole bottle of aftershave on himself and she took a bath in her perfume. Now, your sweet overpowering neighbor

takes out her perfume bottle and every few seconds sprays a fine mist of the heavy scent in your direction. Your eyes water, your nose burns, your medium rare steak, that moments before had the fabulous taste that only Kansas grown beef can have, now tastes something like what an acid laced magnolia leaf might taste. Now imagine that you complained to the manager and she told you that there was nothing she could do about it because your scented neighbors are sitting in the "spraying" section. But she can move you over one table. You just pickup up all your food, your drinks, coats, purses, hats, gloves and silverware and move. Oh, and by the way could you please stop coughing, sneezing and gasping you are really causing quite a disturbance. This is what I encounter when I enter an establishment that is not smoke free. Do you think you would return to that restaurant? Probably not, especially if you are like me, after encountering a smoking environment. I am too busy taking breathing treatments, taking prescription steroids that bloat my system, wreck my stomach and cause chaos with my mind, and just plain trying to breathe again to think of a return trip to that restaurant or any other restaurant, store or establishment for at least 2 weeks while I recover.

I know that some people oppose a clean indoor air act because it supposedly imposes on the rights of smokers. But somewhere way back in a government class I was taught that a right only remains such as long as it does not infringe upon the rights of others. Breathing someone else's second hand smoke most certainly imposes on my rights.

We are 10 years into the new millennium and we Kansans have not yet addressed an issue that since 1966 the surgeon general has been telling us is harmful. I say to you today that the time of putting off the unpleasant decision about indoor smoking has passed. It is time for us to pick ourselves up, dust ourselves off and protect the health of our fellow Kansans by passing the clean indoor air act SB25.

Thank you for your consideration of this important issue.

Testimony Concerning a Statewide Indoor Smoking Ordinance in Kansas

Senate Bill No. 25, Committee on Public Health and Welfare

John S. Neuberger, DrPH, MPH, MBA

Professor, Department of Preventive Medicine and Public Health,
University of Kansas School of Medicine, Kansas City, KS 66160

January 27, 2009

I conducted an indoor smoking survey of city officials of Class I Kansas cities in 2008. The survey was mailed to city clerks, distributed to all Governing Board members, and mailed back to me. The response rate approached 90 percent for cities and 50 percent for individuals surveyed. The survey represented more than 650,000 people, the largest such survey in the State.

Sixty percent of respondents felt that the State should mandate a comprehensive indoor smoking regulation, with local enforcement. Over 70 percent favored greater restrictions on smoking indoors. Among these, over 90 percent favored restrictions in health care facilities, motion pictures, indoor sports arenas (including bowling alleys), restaurants, and shopping malls. Between 80 and 90 percent favored restrictions in lobbies, enclosed spaces in outdoor arenas, and hotel/motel rooms. Approximately 62 percent favored restrictions in bars and casinos. Employee and public health concerns were cited by 76-79 percent of the respondents as motivators for a stricter ordinance (See separate Abstract and PowerPoint presentation dated 8/13/08).

Recently, there have been ten peer-reviewed published studies in different localities that indicate a 12 to 33% reduction in the incidence of acute myocardial infarction hospitalizations after indoor smoking ordinances went into effect.

The New York State Health Department and the Centers for Disease Control and Prevention have found that there is no negative economic harm from indoor smoking ordinances.

The rights of business owners do not include poisoning, making ill, or killing their employees or customers.

A strong state law will provide a level playing field for area businesses and will minimize health and environmental disparities.

While Senate Bill No. 25 is strong, it could be improved upon by eliminating the loophole that allows smoking in as many as 20% of hotel or motel rooms. This loophole allows both employee and guest exposure.

Indoor Smoking Ordinances in Workplaces and Public Places in Kansas

John S. Neuberger, DrPH, MPH, MBA, Ken Davis, PT, MPH, Nancy Dunton, PhD,
Niaman Nazir, MBBS, MPH, University of Kansas Medical Center

August 13, 2008

ABSTRACT

An indoor smoking survey of city officials of Class I Kansas cities was conducted in the spring of 2008. The survey was mailed to city clerks with a request for distribution to all Governing Board (GB) members (council plus mayor). A request was made to return the survey along with any indoor smoking ordinances. Information was collected on the respondent's age, gender, smoking status, attitudes towards indoor smoke exposure in workplaces and public places, the need for statewide legislation, what venues should be covered, and the important factors driving the need to legislate. Simple unweighted percentages were used in calculating responses (total and by gender and smoking status).

The response rate approached 90 percent for cities and exceeded 50 percent for GB members. The overall population represented exceeded 650,000. Two-thirds of the respondents were male and 3.7 percent were current smokers.

Sixty percent of responding Class I city GB members agreed that the State should mandate a comprehensive indoor smoking regulation, with local enforcement. Many agreed that both the city and state should be involved in restricting smoking. GB members who had never smoked tended to favor a more restrictive approach than smokers. Over 70 percent of the respondents favored or strongly favored greater restrictions on smoking indoors. Among these, over 90 percent favored restrictions in health care facilities, motion pictures, indoor sports arenas (including bowling alleys), restaurants, and shopping malls. Between 80 and 90 percent favored restrictions in lobbies, enclosed spaces in outdoor arenas, and hotel/motel rooms. Approximately 62 percent favored restrictions in bars and casinos. Employee and public health concerns were cited by 76-79 percent as motivators for a stricter ordinance.

This study is of representatives of a large population of Kansans and allowed all GB members a chance to be heard. Response rates were excellent for cities and fairly good for individual GB members. Relatively few current smokers were included, compared to state data for the general population. Representatives of rural areas and smaller cities were not included. Representatives of some cities with ordinances did not participate.

The majority of surveyed GB members who responded indicated majority support for dual (local, State) legislation and viewed indoor smoking as an important health issue. Compared to an earlier population survey, GB members were not as enthusiastic about such ordinances as the general population. Of those who favored legislation, the majority believed it should apply to all venues. Cigarette smoking seemed to be an important predictor of responses. Cigarette smokers may have been under-represented in the survey.

Indoor Smoking Ordinances in Workplaces and Public Places in Kansas

John S. Neuberger, DrPH, MPH, MBA
Ken Davis, PT, MPH
Nancy Dunton, PhD
Niaman Nazir, MBBS, MPH

University of Kansas Medical Center

August 13, 2008

Introduction

Sunflower Foundation Sponsored Survey

February 2007

Random Digit Dial Telephone Survey

Sample of 500 (error ± 4.4%)

Introduction (Con't.)

Favor a Smoking Ban for Clean Indoor Air

Current Smokers (20%)	31%
Former Smokers (34%)	76%
Never Smokers (48%)	84%

Introduction (Con't.)

Favor a Clean Indoor Air Law in your community or State that would include all indoor workplaces and public places, including restaurants and bars?

	Community	State
Favor	73	71
Strongly Favor	59	59

Introduction (Con't.)

Is Secondhand Smoke a Health Hazard?

Yes	83%
Yes, a Serious Health Hazard	59%

Methods

Survey Mailed to City Clerks (LKM)
March 2008

Fifty Seven Class I Cities in Kansas
(>5,000 in population)

6-5

Methods (Con't.)

Distributed to Governing Board (GB) Members

Stamped, self-addressed return envelopes provided

Methods (Con't.)

Age

Gender

Smoking status

Methods (Con't.)

Attitudes towards indoor smoke exposure in work places and public places

Need for statewide legislation

What venues should be covered

Importance of legislation

Methods (Con't.)

No identification of individual respondents

Copy of Ordinance

Phone calls to all non-responding cities

Unweighted Percentages

6-7

Methods (Con't.)

Population represented:

1,821,470

[67.9% of 2,681,983]

Results

Response rate: 51 out of 57 cities = 89.5%

190 out of 377 GB members = 50.4%

Results (Con't.)

Cities not responding:

Atchison, Dodge City, Kansas City (KS), Lawrence*, Olathe*, and Salina*

Population not represented: 429,463

Net: 1,392,007

* Cities with smoking ordinances

Results (Con't.)

Reasons for not responding:

No idea
Did not want to participate
Surveyed out
Mayor did not want survey distributed

Results (Con't.)

Respondents: Age (Q #11)

19-39	21	11.1 %
40-59	91	47.9 %
60-79	62	32.6 %
Not stated	16	8.4 %

Results (Con't.)

Respondents: Gender (Q #12)

Male	127	66.8 %
Female	50	26.3 %
Not stated	13	6.8 %

Results (Con't.)

Respondents: Smoking status (Q #10)

Current smoker	7	3.7 %
Former smoker	66	34.7 %
Never smoker	104	54.7 %
Not stated	13	6.8 %

Results (Con't.)

Respondents: Currently Live with a Smoker (Q #10)

Yes	11	5.8 %
No	152	80.0 %
Not stated	27	14.2 %

6-12

Results (Con't.)

Has Your City Government Passed Restrictions on Smoking in Public Places and Workplaces Beyond State Statutes? (Q #4)

Yes	59	31.1 %
No	121	63.7 %
Not stated	10	5.3 %

Results (Con't.)

Positive Responses on Previous Question

Yes from a Respondent	59	31.1 % (Responses)
Number of Cities	23	45.1 % (of 51 cities)
Ordinances Provided	19	82.6 % (of 23 cities)

Results (Con't.)

Should the State Mandate a Comprehensive Indoor Smoking Regulation Enforced Locally? (Q #5)

Yes	114	60.0 %
No	67	35.3 %
Not stated	9	4.7 %

Results (Con't.)

Should the State Mandate a Comprehensive Indoor Smoking Regulation Enforced Locally? By Gender. (Q #5)

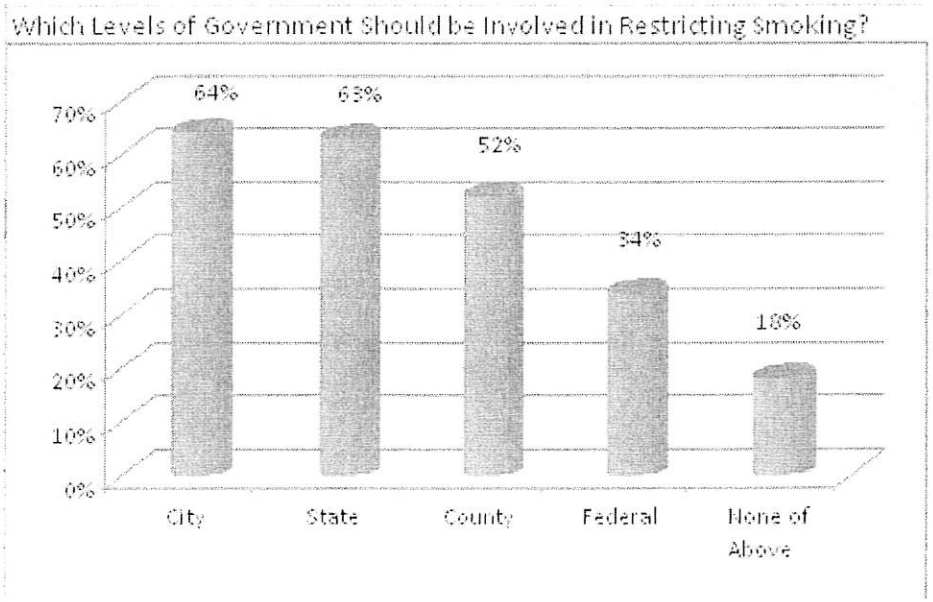
	Total	Male	Female	Not Stated
Yes %	60.0	63.0	58.0	38.5
No %	35.3	33.9	36.0	46.2
Not Stated %	4.7	3.2	6.0	15.4

Results (Con't.)

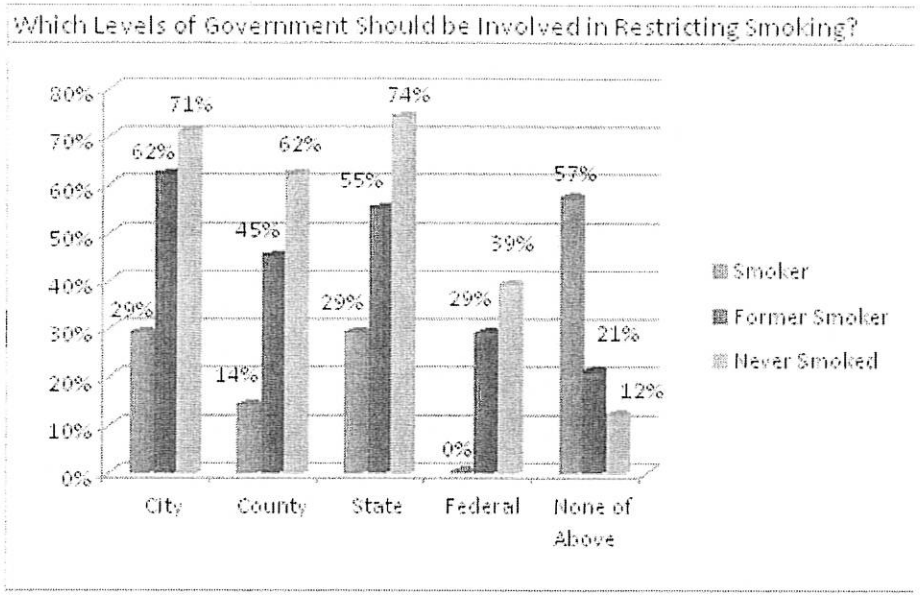
Should the State Mandate a Comprehensive Indoor Smoking Regulation Enforced Locally? By Smoking Status. (Q #5)

	Total	Current	Former	Never	Not Stated
Yes %	60.0	28.6	59.1	67.3	23.1
No %	35.3	71.4	37.9	28.9	53.9
Not Stated %	4.7	0.0	3.0	3.9	23.1

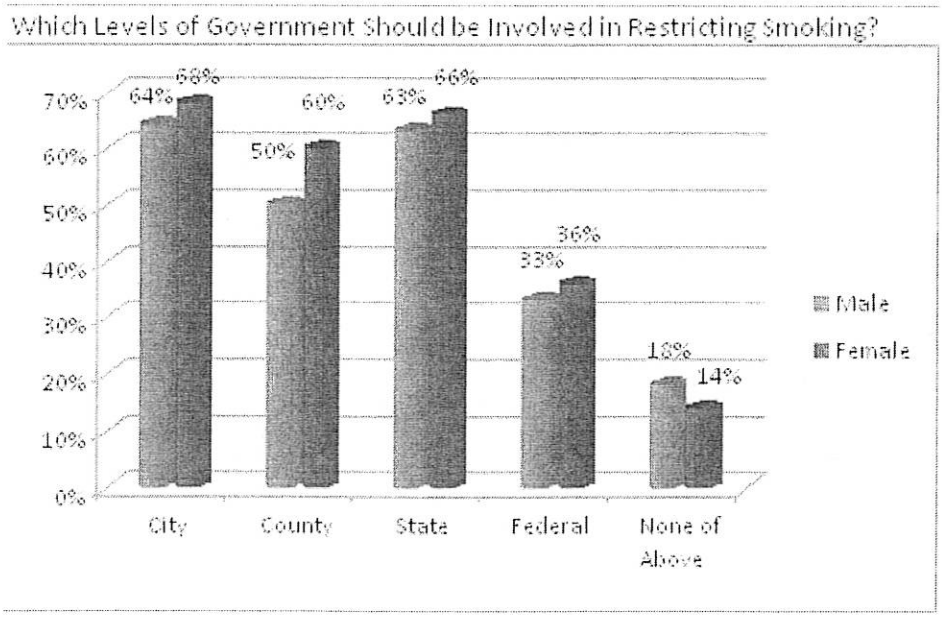
(Q #6)



(Q #6)


Which Levels of Government Should be Involved in Restricting Smoking?
80%
70%
60%
50%
40%
30%
20%
10%
0%
29%
62%
71%
14%
45%
62%
29%
55%
74%
0%
29%
39%
57%
21%
12%
City
County
State
Federal
None of Above
Smoker
Former Smoker
Never Smoked

(Q #6)


Which Levels of Government Should be Involved in Restricting Smoking?
70%
60%
50%
40%
30%
20%
10%
0%
64%
68%
50%
60%
63%
66%
33%
36%
18%
14%
City
County
State
Federal
None of Above
Male
Female

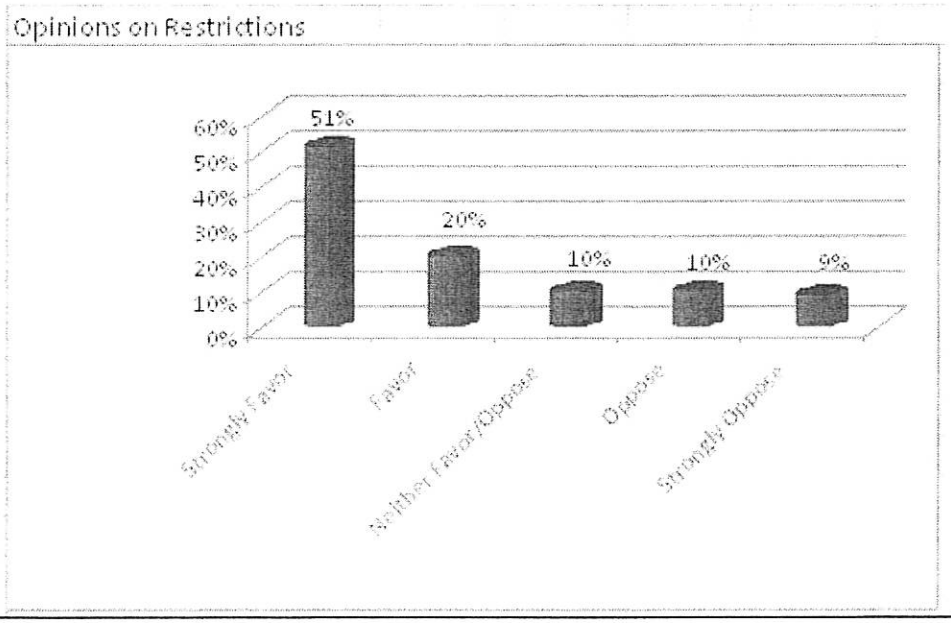
15
6-16

Results (Con't.)

Your Opinion Concerning Greater Restrictions on Smoking Indoors (Q #7)

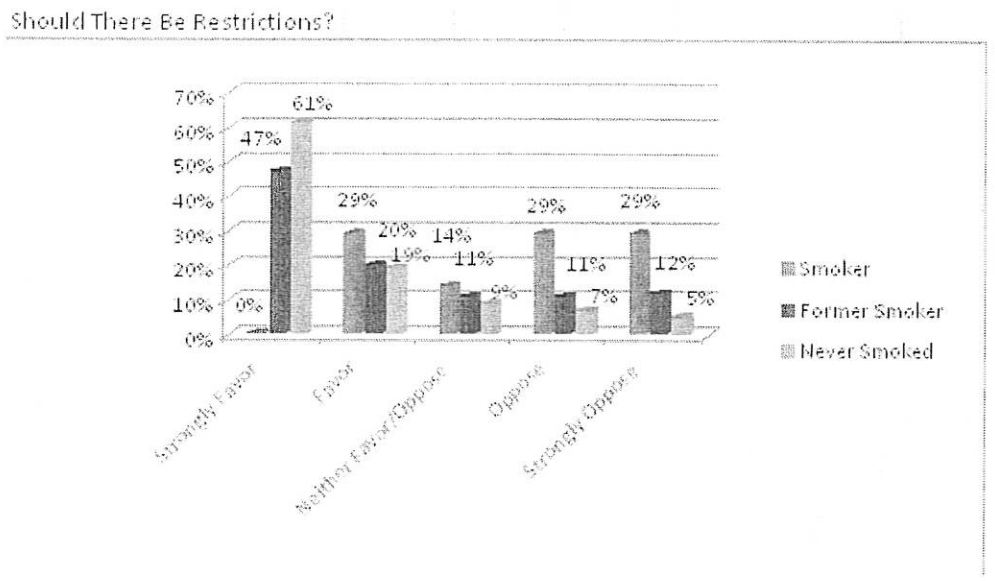
Strongly Favor	97	51.1 %
Favor	38	20.0 %
Neither Favor/Oppose	19	10.0 %
Oppose	19	10.0 %
Strongly Oppose	17	9.0 %

(Q #7)

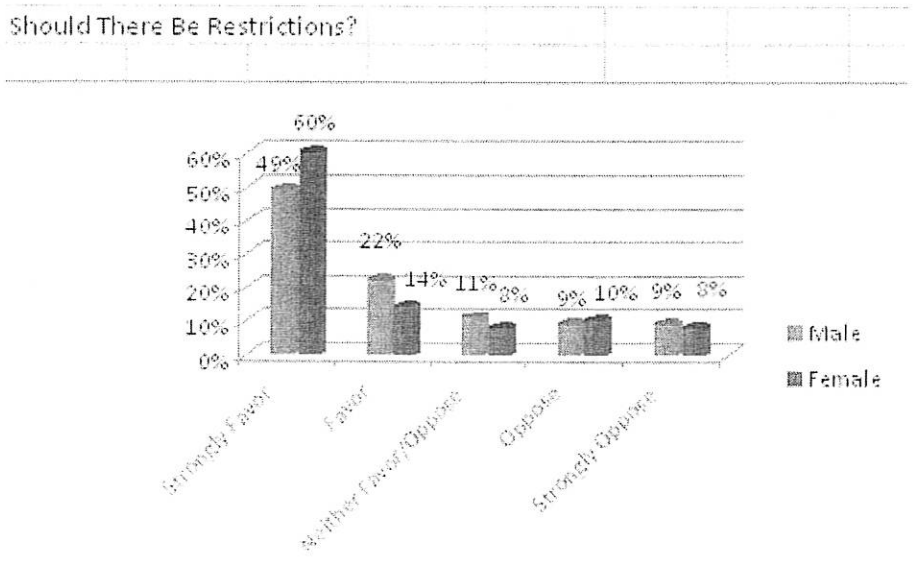


16
6-17

(Q #7)


Should There Be Restrictions?
70%
60%
50%
40%
30%
20%
10%
0%
61%
47%
29%
20%
19%
14%
11%
6%
29%
11%
7%
29%
12%
5%
Strongly Favor
Favor
Neither Favor/Oppose
Oppose
Strongly Oppose
Smoker
Former Smoker
Never Smoked

(Q #7)


Should There Be Restrictions?
60%
60%
50%
40%
30%
20%
10%
0%
49%
22%
14%
11%
8%
9%
10%
9%
8%
Strongly Favor
Favor
Neither Favor/Oppose
Oppose
Strongly Oppose
Male
Female

678

Results (Con't.)

Those who strongly favor/favor restrictions
[n = 135 out of 190] (Q #8)

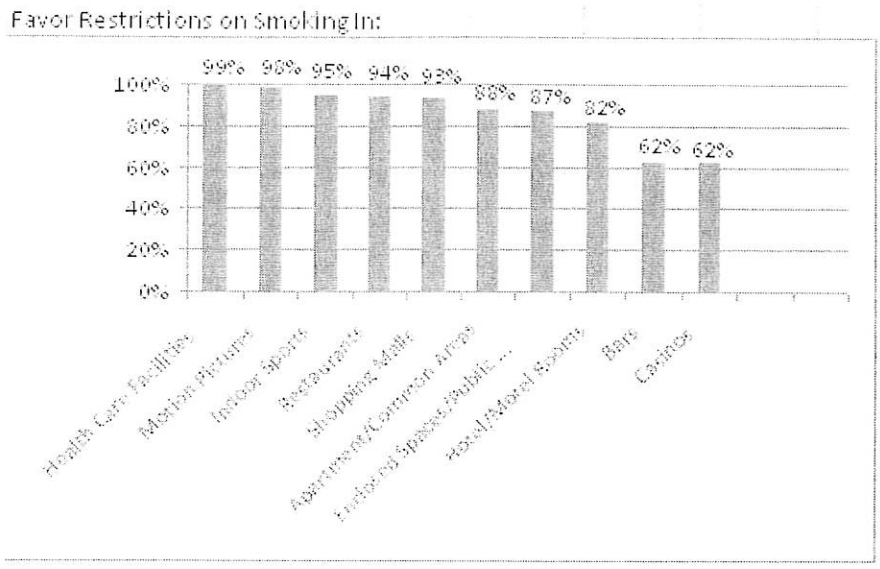
Health Care Facilities	134	99.3 %
Motion Picture, etc.	132	97.8 %
Indoor Sports Arenas, incl. bowling alleys	128	94.8 %
Restaurants	127	94.1 %
Shopping Malls	125	92.6 %

Results (Con't.)

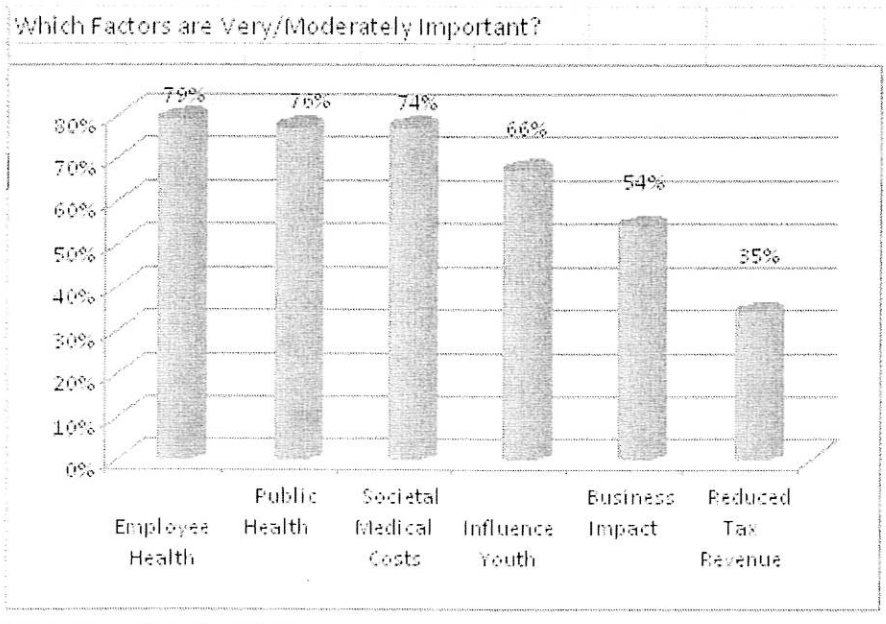
Those who strongly favor/favor restrictions
(Con't.)
[n = 135 out of 190] (Q #8)

Lobbies, Hallways, etc.	119	88.2 %
Enclosed spaces in outdoor arenas	117	86.7 %
Hotel/Motel Rooms	110	81.5 %
Casinos	84	62.2 %
Bars	83	61.5 %

(Q #8)


Favor Restrictions on Smoking In:
100%
80%
60%
40%
20%
0%
99%
98%
95%
94%
92%
88%
87%
82%
62%
62%
Health Care Facilities
Indoor Sports
Restaurants
Shopping Malls
Bars
Casinos

(Q #9)


Which Factors are Very/Moderately Important?
80%
70%
60%
50%
40%
30%
20%
10%
0%
79%
76%
74%
66%
54%
35%
Employee Health
Public Health
Societal Medical Costs
Influence Youth
Business Impact
Reduced Tax Revenue

6-20

Discussion

Large Sample Size

Short Survey; Pilot Tested

All GB Have a Chance to be Heard

Collaboration with the League of Kansas Municipalities

Discussion (Con't.)

Response Rates (cities, GB)

Some Ordinances Not Provided

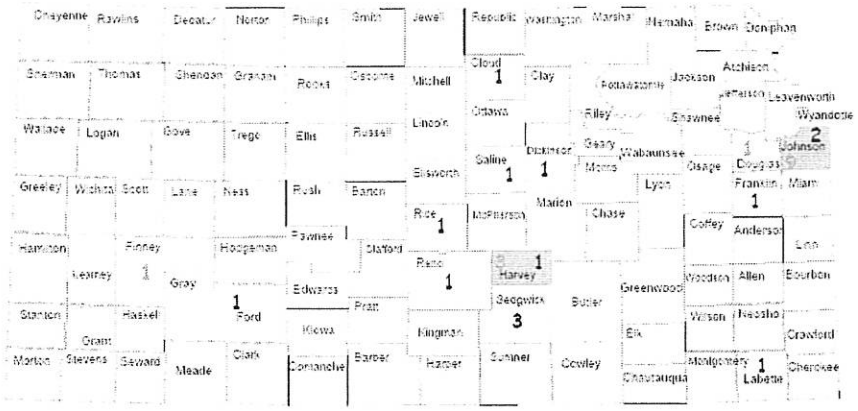
Representative of Smaller Cities and Rural Areas

Very few current smokers

6:20

Kansas Tobacco Use Prevention Program
Kansas Department of Health and Environment

Clean Air Ordinances
Passed as of June 2008



LEGEND

Smoke Free Indoor Air Ordinances (covers all public places 24 hours a day with few exemptions) passed in the following cities: Fairway, Garden City, Hayton, Lawrence, Lenwood, Leawa, Mission, Newton, North Newton, Olathe, Overland Park, Prairie Village, Roeland Park and Westwood.

1 Limited Clean Indoor Air Ordinances passed in the following cities (limited means not all public places are covered, some exemptions, adjoining community trigger, and /or percentage food sales exemption): Abilene, Bel Aire, Concordia, Derby, Dodge City, Hutchinson, Lyons, Mission Woods, Ottawa, Parsons, Salina, Shawnee, Wichita, and Wichita

Harvey and Johnson Counties passed county clean indoor air resolutions in that cover unincorporated areas.

Discussion (Con't.)

Smoking Comparisons

Sample	Current Smoker	Former Smoker	Never Smoker	Not Stated
2007 BRFSS (n=8,474)	17.9 %	23.3 %	58.8 %	-
2007 Telephone Survey (n=500)	20 %	34 %	48 %	-
GB 2008 Mail Survey (n=190)	3.7 %	34.7 %	54.7 %	6.8 %

Discussion (Con't.)

Confusion regarding questions
(Influence, Favor/Strongly Favor)

Inconsistent Answers
(Yes on city ordinances)

Comparison to Sunflower Survey

Comparison to Colorado Survey

Discussion (Con't.)

Comparison to Sunflower Survey

Sample	Current Smokers	Favoring a City Ordinance	Favoring a State Ordinance	Health Importance
Telephone Survey (n=500)	20 %	73 %	71 %	83 %
GB Mail Survey (n=190)	3.7 %	71 %	60 %	76-79 %

Discussion (Con't.)

Comparison to Colorado Survey

Sample	Current Smokers	Response Rate	Percent Male	Support for Ordinance
Mail and Telephone Survey (n=684)	12.7 %	61 %	73.3 %	Non-smokers*
GB Mail Survey (n=190)	3.7 %	50.4 %	66.8 %	Non-Smokers

Reminder

Tobacco Smoke Carcinogens

Benzene
Formaldehyde
Arsenic (inorganic)
Benzo(a)pyrene
Beta-naphthylamine
Chromium^{+6}
Polycyclic aromatic hydrocarbons
Polonium 210
Tar

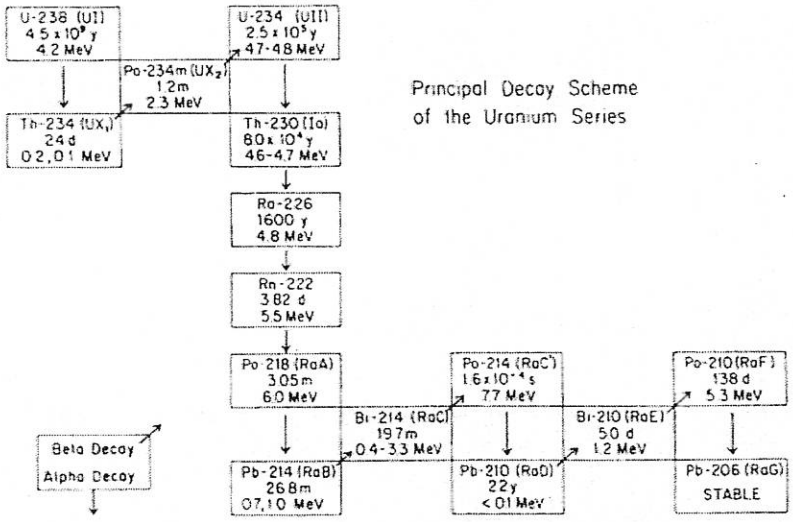


Fig. 1.1. Principal decay scheme of the uranium series.

Alpha α Decay

^{4}He Nucleus Ejected from ^{222}Rn Nucleus

+2

Radon - 222 $\longrightarrow$ $^{4}He + {}^{218}Po$

6-25 24

Conclusions

Majority of surveyed GB who responded:

Indicate support for a State ordinance enforced locally.

View this as an important health issue.

Conclusions (Con't.)

Majority of those who strongly favor or favor legislation believe:

Legislation should apply to all venues.

6-25-26

Conclusions (Con't.)

Smoking status of surveyed GB members seems to be an important variable.

Smoking status of respondents not representative of general population.

Smoking status of respondents may not be representative of all GB members.

Conclusions (Con't.)

Surveyed GB seem to be lagging behind public opinion regarding the seriousness of the problem and the need for comprehensive state legislation.

References:

Andersen P.A., Buller D.B., Voeks J.H., Borland R., Helme D., Bettinghaus E.P., and Young W.F., Predictors of Support for Environmental Tobacco Smoke Bans in State Government, Am J Prev Med 2006;30(4).

Muggli, M.E., Ebbert, J.O., Robertson C., and Hunt, R.D. Waking a Sleeping Giant: The Tobacco Industry's Response to the Polonium-210 Issue. AJPH on line 10.2105/AJPH.2007.130963.

Public Opinion Strategies, Project # 07073, 2007. Kansas Tobacco Statewide, Report to the Sunflower Foundation.

Acknowledgements:

•The Sunflower Foundation
•League of Kansas Municipalities
•Kansas Health Institute
•The Tobacco Free Kansas Coalition
•GB and City Clerk Participants

1/28/09

Senator Barnett and Members of the Committee,

My name is Louie Riederer and I live in Overland Park, KS.
I own five Johnny's Taverns which are located in Johnson County and I employ 150 people.

I've come full circle on smoking bans. I was initially against them but now I fully support them. Of my customers, 99% have commented on how much they like being in a non-smoking environment.

My patrons are happier and my employees are healthier despite my fears that smoking restrictions would hurt my business.

Smoking restrictions in Johnson County went into effect a year ago and while business initially went down, it has come back.

I urge you to pass a statewide bill that will protect all hospitality workers and patrons.

Legislative Testimony on Behalf of the American Cancer Society and the Commission on Cancer

- Economic impact of comprehensive clean indoor air law in Arizona found to be negligible
  - Only 4% of establishments with liquor licenses listed the impending clean indoor air law as major factor affecting their business before the legislation was approved as a ballot initiative from the people of Arizona
  - Only 4% mentioned it after the the law went into effect
  - Gas prices and the economic slowdown were far more important factors
  - Study done by Arizona State University and the State of Arizona
    - No bias-the study did not ask about smoking, but asked only about broad economic factors affecting business
- Does it make good business sense to base a business model on a declining portion of the population, while alienating 82.1% of the public? (17.9% of Kansans smoke in 2008, compared to 20% in 2007)
- Clean indoor air legislation would most likely pass if Kansas allowed ballot initiatives
- Health impact
  - Secondhand smoke is responsible for the deaths of 55,000 Americans each year
    - Access to safe meals in rural Kansas
    - Unnecessary deaths
- Addictive Power of Nicotine and Big Tobacco
  - Is smoking a choice, or an addiction?
    - Nicotine is a highly addictive substance
    - Nicotine is sold by businesses that would be illegal if they dealt with cocaine or marijuana, which are also inhaled, and are in many ways less addictive
  - Nicotine has increased in cigarettes by over 10% in the last 15 years
    - A response by the nicotine cartel to pressure of declining market share
  - Is it fair to foist this addiction onto the general populace through exposure to secondhand and thirdhand smoke?
- Legislation needs to be comprehensive for all workplaces in Kansas.
  - Economic times are tough. Job seekers who need to feed their families do not have the luxury of seeking employment in only nonsmoking establishments.
  - No one should be forced to risk premature death and disability from secondhand and thirdhand smoke exposure in an unsafe work environment.

- James J. Hamilton, Jr. MD, FACS
  - Volunteer, American Cancer Society
  - Kansas State Chair, Commission on Cancer

High Plains Division, Inc.
1315 SW Arrowhead Road Topeka, KS 66604-4020
785.273.4462 / 1.800.359.1025 f) 785.273.1503
Cancer Information 1.800.ACS.2345 www.cancer.org

Kansas

United Health Foundation AMERICA'S **HEALTH** RANKINGS™ 2008

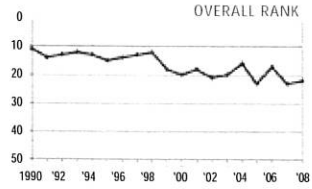
Overall Rank: 22
Change: ▲1

Strengths:
- Few poor mental and physical health days
- High immunization coverage
- Low prevalence of smoking

Challenges:
- Low per capita public health funding
- Limited access to primary care
- Moderate rate of preventable hospitalizations

Significant Changes:
- In the past year, the prevalence of smoking decreased by 11%
- In the past year, the percentage of children in poverty declined by 12%
- Since 1990, the incidence of infectious disease decreased by 67%
- Since 1990, the rate of uninsured population increased by 39%

Ranking: Kansas is 22nd this year; it was 23rd in 2007.



Strengths: Strengths include few poor mental and physical health days per month at 2.6 days and 3.1 days in the previous 30 days, respectively, a low incidence of infectious disease at 7.7 cases per 100,000 population, a low prevalence of smoking at 17.9 percent of the population and high immunization coverage with 81.7 percent of children ages 19 to 35 months receiving complete immunizations.

Challenges: Challenges include low public health funding at $39 per person, limited access to primary care with 100.5 primary care physicians per 100,000 population, a high occupational fatalities rate at 7.3 deaths per 100,000 workers and a moderate rate of preventable hospitalizations with 80.8 discharges per 1,000 Medicare enrollees. Kansas ranks lower for health determinants than for health outcomes, indicating that overall healthiness may decline over time.

Significant Changes:
- ▼ In the past year, the prevalence of smoking decreased from 20.0 percent to 17.9 percent of the population.
- ▼ In the past year, the percentage of children in poverty decreased from 19.7 percent to 17.4 percent of persons under age 18.
- ▼ Since 1990, the incidence of infectious disease declined from 23.3 to 7.7 cases per 100,000 population.
- ▲ Since 1990, the rate of uninsured population increased from 9.0 percent to 12.5 percent.

Health Disparities: In Kansas, low birth weight babies are more common among non-Hispanic blacks at 13.4 percent than non-Hispanic whites at 7.0 percent. Access to health care varies significantly by race and ethnicity in the state; 44.0 percent of Hispanics lack health insurance compared to 12.4 percent of non-Hispanic whites.

State Health Department Web Site: www.kdheks.gov

	2008		2007		2003		1990	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
DETERMINANTS								
PERSONAL BEHAVIORS								
Prevalence of Smoking (Percent of population)	17.9	13	20.0	24	22.1	17	30.2	27
Prevalence of Binge Drinking (Percent of population)	15.0	20	13.9	17	15.3*	24	—	—
Prevalence of Obesity (Percent of population)	27.7	31	25.9	30	22.8	28	13.1	40
COMMUNITY & ENVIRONMENT								
High School Graduation (Percent of incoming ninth graders)	79.2	21	77.9	22	74.5*	17*	84.1*	8
Violent Crime (Offenses per 100,000 population)	453	31	425	27	405	27	361	21
Occupational Fatalities (Deaths per 100,000 workers)	7.3	38	6.1	25	6.5	38	11.5*	32
Infectious Disease (Cases per 100,000 population)	7.7	11	7.9	11	12.2	17	23.3	16
Children in Poverty (Percent of persons under age 18)	17.4	30	19.7	38	14.4	26	14.3	11
Air Pollution (Micrograms of fine particles per cubic meter)	10.9	20	10.7	19	12.1	23.0	—	—
PUBLIC & HEALTH POLICIES								
Lack of Health Insurance (Percent without health insurance)	12.5	19	11.3	14	10.4	17	9.0	12
Public Health Funding (Dollars per person)	$39	46	$37	46	—	—	—	—
Immunization Coverage (Percent of children ages 19 to 35 months)	81.7	13	79.2	35	66.8	45	—	—
CLINICAL CARE								
Adequacy of Prenatal Care (Percent of pregnant women)	69.8*	—	79.1	16	81.07*	11	76.2*	9
Primary Care Physicians (Number per 100,000 population)	100.5	39	101.6	38	—	—	—	—
Preventable Hospitalizations (Number per 1,000 Medicare enrollees)	80.8	34	80.8	34	81.3	33	—	—
ALL DETERMINANTS	3.6	23	2.2	26	5.6	19	5.9	14
HEALTH OUTCOMES								
Poor Mental Health Days (Days in previous 30 days)	2.6	6	2.9	9	2.6	5	—	—
Poor Physical Health Days (Days in previous 30 days)	3.1	9	3.0	6	2.6	3	—	—
Geographic Disparity (Relative standard deviation)	10.6	25	11.0	30	—	—	—	—
Infant Mortality (Deaths per 1,000 live births)	6.8	28	6.7	27	7.1	27	9.2	14
Cardiovascular Deaths (Deaths per 100,000 population)	283.9	24	295.8	24	319.4	0	363.2	14
Cancer Deaths (Deaths per 100,000 population)	191.3	22	190.7	18	188.1	10	175.1	8
Premature Death (Years lost per 100,000 population)	7,277	23	7,236	24	7,079	22	7,581	14
ALL HEALTH OUTCOMES	3.1	17	2.0	20	1.3	23	6.0	9
OVERALL	6.7	22	4.1	23	8.3	20	11.9	11

▲ and ▼ indicate major increases and decreases in the last year. — indicates data not available. *Data may not be comparable. **See measure description for full details.

A New Cigarette Hazard: 'Third-Hand Smoke'

By RONI CARYN RABIN
Published: January 2, 2009

Parents who smoke often open a window or turn on a fan to clear the air for their children, but experts now have identified a related threat to children's health that isn't as easy to get rid of: third-hand smoke.

That's the term being used to describe the invisible yet toxic brew of gases and particles clinging to smokers' hair and clothing, not to mention cushions and carpeting, that lingers long after second-hand smoke has cleared from a room. The residue includes heavy metals, carcinogens and even radioactive materials that young children can get on their hands and ingest, especially if they're crawling or playing on the floor.

Doctors from MassGeneral Hospital for Children in Boston coined the term "third-hand smoke" to describe these chemicals in a new study that focused on the risks they pose to infants and children. The study was published in this month's issue of the journal Pediatrics.

"Everyone knows that second-hand smoke is bad, but they don't know about this," said Dr. Jonathan P. Winickoff, the lead author of the study and an assistant professor of pediatrics at Harvard Medical School.

"When their kids are out of the house, they might smoke. Or they smoke in the car. Or they strap the kid in the car seat in the back and crack the window and smoke, and they think it's okay because the second-hand smoke isn't getting to their kids," Dr. Winickoff continued. "We needed a term to describe these tobacco toxins that aren't visible."

Third-hand smoke is what one smells when a smoker gets in an elevator after going outside for a cigarette, he said, or in a hotel room where people were smoking. "Your nose isn't lying," he said. "The stuff is so toxic that your brain is telling you: 'Get away.'"

The study reported on attitudes toward smoking in 1,500 households across the United States. It found that the vast majority of both smokers and nonsmokers were aware that second-hand smoke is harmful to children. Some 95 percent of nonsmokers and 84 percent of smokers agreed with the statement that "inhaling smoke from a parent's cigarette can harm the health of infants and children."

But far fewer of those surveyed were aware of the risks of third-hand smoke. Since the term is so new, the researchers asked people if they agreed with the statement that "breathing air in a room today where people smoked yesterday can harm the health of infants and children." Only 65 percent of nonsmokers and 43 percent of smokers agreed with that statement, which researchers interpreted as acknowledgement of the risks of third-hand smoke.

The belief that second-hand smoke harms children's health was not independently associated with strict smoking bans in homes and cars, the researchers found. On the other hand, the belief that third-hand smoke was harmful greatly increased the likelihood the respondent also would enforce a strict smoking ban at home, Dr. Winickoff said.

"That tells us we're onto an important new health message here," he said. "What we heard in focus group after focus group was, 'I turn on the fan and the smoke disappears.' It made us realize how many people think about second-hand smoke — they're telling us they know it's bad but they've figured out a way to do it."

The data was collected in a national random-digit-dial telephone survey done between September and November 2005. The sample was weighted by race and gender, based on census information.

Dr. Philip Landrigan, a pediatrician who heads the Children's Environmental Health Center at Mount Sinai School of Medicine in New York, said the phrase third-hand smoke is a brand-new term that has implications for behavior.

"The central message here is that simply closing the kitchen door to take a smoke is not protecting the kids from the effects of that smoke," he said. "There are carcinogens in this third-hand smoke, and they are a cancer risk for anybody of any age who comes into contact with them."

Among the substances in third-hand smoke are hydrogen cyanide, used in chemical weapons; butane, which is used in lighter fluid; toluene, found in paint thinners; arsenic; lead; carbon monoxide; and even polonium-210, the highly radioactive carcinogen that was used to murder former Russian spy Alexander V. Litvinenko in 2006. Eleven of the compounds are highly carcinogenic.

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ECONOMIC EFFECT OF THE STATEWIDE BAN ON SMOKING IN RESTAURANTS AND BARS IN ARIZONA

August 2008

Produced for the Arizona Department of Health Services

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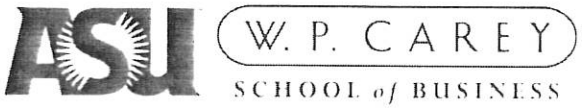


PREFACE

On November 7, 2006, the voters of Arizona approved the Smoke-Free Arizona Act, listed as Proposition 201 on the November 2006 ballot. The new law (Arizona Revised Statute 36-601.01) specified that the Act was to be implemented and enforced by the Arizona Department of Health Services. The Smoke-Free Arizona Act went into effect on May 1, 2007.

In December 2006, the Arizona Department of Health Services requested that the L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University conduct a study of the economic effect of the Smoke-Free Arizona Act. This report presents the findings from that study.

CONTENTS

Executive Summary 1
Introduction 2
Literature Review 4
  Studies of Aggregate-Level Measures 4
  Studies Based on Surveys 5
  Papers Focusing on Methodological Issues 6
  Studies Focusing on Arizona's Local Smoking Bans 6
Methodology 7
Survey Results 9
  Characteristics of Establishments 9
  Factors Affecting Business 13
  Business Conditions 15
  The Smoking Ban as a Factor Affecting Business 15
  Establishments Citing the Smoking Ban as Having the Most Effect 16
  Differences in Responses Among Three Groups 18
  Change in Growth Rate of Revenue Between 2006 and 2007 20
  Closed Businesses 21
Analysis of Actual Restaurant and Bar Sales 23
  Long Time Series of Broad Categories 23
    Comparing Actual Restaurant and Bar Sales to Forecasted Values 24
  Short Time Series of Specific Categories 25
    Comparing Actual Ratios to Forecasted Values 28
Conclusions 30
References 32
Appendix A: Survey Instrument 34
Appendix B: Complete Survey Results 36

Charts

1. Arizona Restaurants and Bars Allowing Smoking in 2007 and 2008 10
2. Arizona Restaurants and Bars by County 11
3. Year-Over-Year Percent Change in Unadjusted Sales in Arizona 24
4. Restaurant and Bar Tax Collections in Arizona 26
5. Restaurant and Bar Sales in Arizona as a Ratio of Retail Sales Less Big-Ticket Items 27
6. Ratio of Restaurant and Bar Tax Collections to Tax Collections of Retail Less Big-Ticket Items in Arizona 29

Tables

1. Factor Most Affecting Arizona Restaurants and Bars in 2007 and 2008 14
2. Respondents Indicating That the Smoking Ban Was Having the Most Effect on Business 17

Maps

1. Location of Those Establishments That Responded in Both 2007 and 2008 12
2. Location of Those Establishments That Cited the Smoking Ban as Having the Most Effect on Their Business 19

EXECUTIVE SUMMARY

The statewide smoking ban that went into effect on May 1, 2007 in Arizona did not result in any distinguishable large-scale economic effect on the restaurant and bar industry in the state. However, the ban appears to have had a negative effect on some businesses and a positive effect on others.

The conclusion that a macroeconomic effect has not occurred comes from an analysis of actual aggregate sales data for restaurants and bars in Arizona. This conclusion is consistent with most studies that have analyzed the effect of smoking bans in communities around the world by analyzing actual sales data.

The apparent differential effect of the statewide smoking ban from establishment to establishment comes from the results of a survey of owners and managers of restaurants and bars in Arizona that was conducted prior to the implementation of the ban and repeated a year later. This conclusion is consistent with most studies that have analyzed the effect of smoking bans by surveying the restaurant and bar industry.

Previous studies have found that bars, which typically have a higher proportion of smoking customers, are more likely to be affected by smoking bans than restaurants. Establishments that serve alcohol also have been found to be more affected. The results of the survey of restaurants and bars in Arizona are in line with these earlier studies. The smoking ban was indicated to be the factor having the most effect on business by a considerably higher proportion of bars than restaurants that serve liquor. Hardly any restaurants without a liquor license mentioned the ban.

In particular, approximately one-fifth of the bars that had allowed smoking prior to the implementation of the statewide smoking ban cited the ban as having the most effect on their business. In contrast, only about one in 20 of the restaurants with liquor licenses that had allowed smoking prior to the ban cited the ban as having the most effect. Those citing the smoking ban reported weaker revenue growth in 2007 relative to 2006 than those not mentioning the ban. In contrast, some establishments indicated that they were benefiting from the smoking ban. For example, a bar with a large and well-furnished outdoor smoking patio may be benefiting while a bar with only inside seating may be suffering.

If the smoking ban is having an adverse effect on some establishments, the effect does not appear to be so severe as to cause the business to fail. The percentage of restaurants and bars surveyed in 2007 that had closed by 2008 was not higher than expected, and the number of bars failing was quite small. Not one of the closed businesses mentioned the smoking ban in the 2007 survey, nor was the ban mentioned once by the minority of closed businesses for which reasons for their closing were obtained.

The survey approach has certain shortcomings. Sampling error and nonresponse bias are common issues. A challenge for respondents to this survey was to separate the possible impact of the smoking ban from the general decline in economic conditions that began around the time that the statewide smoking ban was implemented. Thus, it may be difficult for an owner or manager to determine if a decline in business activity is a result of the smoking ban, the decline in general economic conditions, or some other factor.

INTRODUCTION

Though the incidence of smoking has declined over time in the United States, one-in-five American adults still smoke. According to the Centers for Disease Control and Prevention, the estimated prevalence of smoking in Arizona in 2006 (the latest year available) was 18.1 percent, a little below the median state's figure of 20.2 percent. As the evidence of the negative effects of second-hand smoke has increased, more communities have adopted policies that ban smoking in public places. As bans have gone into effect around the country, restaurant and bar owners in particular have been concerned about the potentially adverse effect on their business of such nonsmoking policies.

The purpose of this report is to examine the economic effect of the statewide smoking ban that went into effect on May 1, 2007 in Arizona. In November 2006, the Arizona electorate approved the Smoke-Free Arizona Act (Proposition 201), making Arizona the 16th state to pass a comprehensive clean-indoor-air act[1]. Arizona's Act established a statewide prohibition on smoking in public places and places of employment, with certain exceptions. Such exceptions include certain retail tobacco stores that derive the majority of sales from tobacco products, veterans and fraternal clubs when they are not open to the general public, hotel rooms that are designated as smoking rooms (no more than fifty percent of the rooms are designated as smoking), and outdoor patios. Indian reservations are not affected by Arizona's smoke-free law.

Under this new law, a business owner is required to prevent smoking from occurring inside the establishment, but smoking can be allowed outside in a patio area as long as the smoke from the patio does not drift into the indoor area and as long as the outdoor patio meets the requirements defined by the Arizona Administrative Code R9-2-108. In general, smoking is not allowed within 20 feet of entrances and exits.

The statewide smoking ban was preceded by several local bans[2]. Flagstaff implemented a smoke-free ordinance in 1993, but certain restaurants and bars were exempted. Mesa enacted a more comprehensive smoke-free law in 1996, but following challenges it exempted certain bars. Tucson's smoke-free ordinance (1999) allowed restaurants to file for hardship exemptions. It was quickly followed by one enacted for all of Pima county that exempted bars. The smoke-free ordinances passed by Tempe and Guadalupe (both in May 2002) were Arizona's first 100 percent clean-indoor-air acts that included bars. They were followed by similar ordinances passed in Prescott (2003), Coconino County (2003), Flagstaff (2005), and Sedona (2005). Weaker ordinances went into effect in Gilbert (2001), Surprise (2002), and Peoria (2004).

Unlike prior smoking bans that were limited to certain cities, some of which provided various exemptions, the statewide application and limited exemptions of the Smoke-Free Arizona Act largely created a "level playing field" for businesses since geographically proximate indoor substitutes for smokers generally are not available or are very limited in number. Only those establishments close to Native American lands that choose to continue to allow smoking in enclosed public places, or in establishments close to the state border with a nearby community across the border that allows smoking in indoor restaurants and bars, face competition by businesses that allow indoor smoking. The limited number of facilities on Indian reservations

[1] Hendlin, Barnes and Glantz (2008)
[2] Same as above

presents little competition for off-reservation businesses, especially in the state's large metropolitan areas.

In order to assess the economic effect of the statewide smoking ban, two independent analyses were conducted as part of this study. The first analysis consists of a survey of eating and drinking establishments across Arizona. The initial survey was conducted prior to the Smoke-Free Arizona Act taking effect in May 2007. The survey was repeated a year later. Later sections of this report discuss the survey methodology and survey results. The second analysis reviews actual aggregate restaurant and bar sales, comparing sales from before and after the implementation of the smoking ban.

The analysis of the effect of the smoking ban on restaurants and bars was complicated by a cyclical change in economic conditions between early 2007 and early 2008. Though economic growth had begun to slow from the peak cyclical gains, the Arizona economy remained strong in early 2007. By the fall of the year, the economy was in recession. Consumer spending was particularly affected. Overall consumer spending in Arizona began to fall — even before adjusting for inflation and population growth — coincident with the implementation of the smoking ban. Restaurant and bar sales weakened during 2007 but did not decline until 2008.

LITERATURE REVIEW

Significant research has been done on the effects of tobacco regulation on the hospitality industry in the United States and in other countries. A comprehensive survey of the existing literature on the economic impact of smoking bans was produced by Scollo and Lal in 2005. They reviewed 151 studies that can be classified into two types: studies based on aggregate-level data, such as taxable sales receipts, and studies based on subjective impressions, such as surveys.

Scollo and Lal concluded that studies that used objective measures such as actual tax receipts generally did not find evidence of any negative economic impact following the introduction of smoking bans. They contended that the few studies that found negative impacts were methodologically flawed. In contrast, studies that used subjective measures or were based on outcomes estimated before the enactment of the smoking policies typically found negative effects. The authors indicated that many of these studies were funded by the tobacco industry.

Thus, conclusions regarding the economic effects of smoking bans have varied based on the type of study employed and the entity producing/funding the study. In addition, results have varied by the type of business. Conceptually, bars are more likely to experience a negative effect than restaurants, with restaurants without liquor licenses less likely to be affected than restaurants with liquor licenses. Further, the geographic extent of a smoking ban makes a difference. Negative effects are most likely in a small community that implements a ban that is surrounded by communities in which a ban is not in place.

Studies of Aggregate-Level Measures

Masotti and Creticos (1991) examined the effects of a local ban on smoking in public places in the city of San Luis Obispo, California. Sales tax receipts during the two years following the ban were examined and compared to trends in the rest of the county as well as the entire state. The analysis revealed that tax receipts of eating and drinking establishments in the affected city dropped significantly, which was not consistent with the trend for the remainder of the county and the state. The authors concluded that the local smoking ban adversely affected restaurants and bars.

Glantz and Smith (1994) are the authors of what is considered the first comprehensive study on the effect of smoke-free ordinances on restaurant revenues. They compared taxable restaurant sales in 15 communities where such ordinances were in force with another 15 communities not subject to smoking ordinances. These communities were located in California and Colorado. They used regression analysis to examine whether total restaurant sales as a fraction of total retail sales differed between the smoke-free cities and the comparison cities, and found that local smoking ordinances did not have a negative effect on restaurant sales.

Glantz and Charlesworth (1999) examined hotel revenues and tourism rates before and after the enactment of comprehensive smoking bans in six cities in three states. They found that the smoke-free ordinances did not have any negative impact and may have increased tourism.

Bartosch and Pope (2002) compared meal tax receipts before and after the imposition of smoking restrictions in 239 adopting versus nonadopting cities and towns in Massachusetts between 1992 and 1998. They found that adoption of the smoking restrictions did not significantly impact meal

8-12

receipts. However, they also found that in cities surrounded by nonsmoking communities, per capita restaurant sales were statistically significantly higher than in cities surrounded by communities with no smoking restrictions.

Hyland et al. (2003) examined the effects of smoke-free regulations on taxable sales and employment of restaurants in several counties in the state of New York. They found that sales and employment stayed constant or increased in counties that implemented such regulations.

Fleck and Hanssen (2008) analyzed the effect of smoking bans on restaurant sales in 267 California communities. First, using simplistic trends, they found a positive correlation in the case of municipal bans and a negative effect for the state ban. After they controlled for preexisting trends, they found no effects of any of the bans on restaurant sales. In their conclusions, the authors pointed out that smoking bans implemented at different jurisdictional levels should not be treated as homogenous and that care should be taken to control for trends.

Studies Based on Surveys

Jones, Wakefield and Turnbull (1999) examined the effects of a voluntary smoking ban on 276 restaurants in Adelaide, Australia. The majority of restaurants that voluntarily restricted smoking on their premises reported no change or a gain in business as a result.

Dunham and Marlow (2000), using a nationwide survey of 1,300 restaurants, bars and taverns, focused on the distributional effects of smoking bans and found that they are not uniform across different types of establishments, with bars being twice as likely to experience losses as restaurants.

Cremieux and Ouellette (2001) conducted a survey of 401 restaurants and 600 firms in Quebec before the enactment of a smoking ban in order to assess its costs. They concluded that although firms and restaurants expected high costs associated with the implementation of strict smoking regulation (e.g. infrastructure costs and decreased patronage), none of this was observed in a comparison group that had already adopted voluntary bans. However, restaurant owners' responses regarding expected revenues differed significantly according to their existing smoking policy: 80 percent of those with some voluntary smoking restrictions did not expect a fall in revenues due to the new policies, while 60 percent of those without an existing policy expected a fall in revenues, with a possible explanation being self-selection.

Dunham and Marlow (2003) examined the effects of smoking laws on restaurant owners, customers and workers, including whether restaurant and bar owners altered prices, entertainment, and hours of operation in response to smoking bans. The survey used a sample of approximately 1,000 restaurants and bars in Wisconsin in 2001, some of which were subject to smoking bans and some that were not. An econometric model on changes in profits found that shares of seating for nonsmoking customers, shares of revenues from alcohol, and seating capacity had a negative and significant influence on profits. Furthermore, a restaurant expecting a profit reduction was significantly more likely to raise prices, lower entertainment, and reduce hours of operation.

Hammar (2004) analyzed the revenue expectations of restaurants and bars prior to the implementation of a general smoking ban. The study was based on a sample of 252 dining establishments located in Gothenborg, Sweden. Owners were more likely to expect a decrease in revenues if their share of smoking customers was higher. Establishments that were already nonsmoking were less likely to expect a decrease in revenues compared to those that had allowed smoking.

Papers Focusing on Methodological Issues

Decker and Schwartz (2000) investigated the link between smoking and alcohol consumption, and whether these two goods are substitutes or complements. Their findings suggest that cigarettes and alcohol have a dual behavior: higher alcohol prices lead to a decrease in both alcohol consumption and smoking (suggesting they are complements), but in contrast, higher cigarette prices lead to a decrease in smoking but an increase in drinking.

Pakko (2006) highlighted some of the methodological problems that are present in studies. Omitted variable bias is one problem — if an important influencing factor is excluded, the results may be inaccurate. Other problems include small sample sizes and sample selection bias — communities that implement smoking bans tend to have a lower prevalence of smokers. Further, studies examining the aggregate impact may overlook distributional effects, such as bars being more likely to be affected by smoking bans than restaurants.

Studies Focusing on Arizona's Local Smoking Bans

Two studies examined the effects of local smoking bans in Arizona, one in Mesa and one in Flagstaff. However, both studies had very small sample sizes considering the population of businesses affected by the respective public policies. In the case of the Mesa study conducted by Applied Economics in 1996, only 25 businesses were surveyed. In the 1993 Flagstaff study, few businesses in the sample actually were affected by the smoking ban, with the other respondents opting out of banning smoking in their establishments.

Sciacca and Eckrem (1993) conducted a study of the effects of a city smoking ordinance passed in Flagstaff in 1989 that required restaurants and retail stores to adopt one of three smoking policies: allow smoking in all areas, allow it in designated areas, and do not allow smoking. They surveyed 61 businesses, of which 17 were restaurants. The vast majority of respondents believed that the ordinance did not have any effect on their business. However, only three (18 percent of) restaurants chose to ban smoking entirely on their premises. The study was augmented with actual sales data. Sales increased during the year following the enactment of the ordinance.

The Mesa study involved an analysis of retail sales data as well as interviews with 25 businesses from the hospitality industry conducted one month after the implementation of the smoke-free ordinance in July 1996. The study concludes that, based on the interviews conducted with businesses, the smoking ban negatively affected the hospitality industry: businesses experienced declines in sales, especially liquor sales, and losses in employment and customer base. The analysis of the retail sales data also showed a negative impact — aggregated sales of Mesa establishments dropped by 5.2 percent in the first two months following the implementation of the ordinance when compared to the same two months of the previous year, while controlling for exogenous factors.

METHODOLOGY

The ideal way to analyze the effect of the statewide smoking ban would have been to collect sales data from individual restaurants and bars for the months immediately preceding and following the implementation of the smoking ban. Such data are not publicly available. Obtaining such data from an adequate number of businesses that were representative of the entire restaurant and bar industry was considered to be highly unlikely. Thus, the analysis of the effect of the smoking ban has to rely on microdata supplied by companies in the survey responses and on macrodata on sales for the entire industry. The remainder of this section discusses the survey methodology; the analysis of restaurant and bar sales is presented later in this report.

The survey was limited to Arizona businesses at which food and/or drinks are served, including restaurants, bars, microbreweries, veterans and fraternal clubs (such as the American Legion), and government facilities (such as at a public golf course). Survey respondents were randomly selected from a list of 10,630 establishments (an establishment is a place of business at a specific location; a company consists of one or more establishments). The list of Arizona establishments was created by merging information from two sources:

- The Arizona Department of Liquor Licenses lists all businesses that have one of 17 types of liquor licenses. All businesses with an active license that serve alcoholic beverages to customers on the premises of the business were included on the list.
- InfoUSA provides company-specific information on businesses across the nation, and was used for those restaurants that do not serve alcoholic beverages.

The master list of 10,630 establishments exceeds the 9,061 restaurant and drinking establishments reported in County Business Patterns, which is produced by the U.S. Census Bureau. The lesser number in County Business Patterns results in part from 2006 being the latest data and because establishments without paid employees during the reference period in March were not included.

Conducted by telephone from the offices at the L. William Seidman Research Institute in Tempe, Arizona, the survey first was administered during February, March and April 2007, just prior to the implementation of the statewide smoking ban. Respondents to the survey were limited to owners or managers. Businesses were contacted randomly from the master list, though establishments serving liquor were oversampled due to prior research that indicated such establishments are more likely to be adversely affected by a smoking ban. A total of 646 surveys were completed, though not every respondent answered every question.

Given the controversial nature of the smoking ban, particularly among operators of bars and restaurants, it was a concern that bias might be introduced by a survey that focused on the smoking ban. Thus, the survey was designed as a general survey of business conditions. This approach differs from that of most other research that analyzed the effects of smoking bans.

Consisting of 15 questions, the survey instrument contained some multiple-choice and some open-ended questions (the survey instrument is presented in Appendix A). The first section of the survey collected information regarding changes in the business's revenues and customer base. The second section asked about factors affecting the business. It included an open-ended question about what factor most was affecting the business. The last part of the questionnaire

collected information about characteristics of the establishment, such as seating capacity, presence of an outside seating area, and smoking policies.

The survey was repeated during February, March and April 2008, several months after the implementation of the smoking ban. The 2008 survey contained virtually identical questions to the 2007 survey. An effort was made in 2008 to contact each restaurant and bar that had responded in 2007. However, in comparison to 2007, the response rate was much lower in 2008. Only 252 (39 percent) of the 646 respondents from 2007 completed the 2008 survey between February and April. A large number of establishments not contacted in 2007 were contacted in 2008 in order to bolster sample size, with 457 of these new contacts completing the 2008 survey. However, since these respondents had not participated in the 2007 survey, the information collected from this group is of limited use.

Thus, a second effort was made to contact respondents from the 2007 survey in July and early August 2008. As a result, a total of 371 (57 percent) of the 646 respondents of the 2007 survey also completed the 2008 survey. The responses of those who answered the survey in the summer were tested against those who answered in the spring. In only a few instances was a significant difference found. A higher proportion of those contacted in the summer offer outside seating and a higher share provide some type of entertainment. Though the age distribution of the businesses was significantly different, offsetting variations meant little practical difference in the responses. The answers to the question on the factor most affecting the business also was significantly different in the summer, primarily due to a large increase in the percentage of respondents indicating that the price of gasoline was the most significant factor.

SURVEY RESULTS

This analysis of the survey results focuses on the 371 respondents who completed the surveys in both 2007 and 2008. Unless otherwise noted, the results reported in this section apply to this subset of all respondents. Not all results from the subset that responded in both years are highlighted in this section. The results from the subset that responded in both years are supplemented at times by the responses of those who participated only in the 2007 survey (N=275) or only in the 2008 survey (N=457). The full results from the subset that responded in both years as well as the subsets that answered only in 2007 or only in 2008 are reported in Appendix B.

The survey responses were analyzed using the statistical package Stata. For the descriptive results, comparisons between proportions were made using χ^2 (chi-square) tests. Statistical significance is assessed at the standard 95 percent confidence level.

Any survey has multiple limitations, including sampling error and nonresponse bias. This survey has additional issues. Whenever more than one condition is changing at the same time, it can be difficult for any respondent to separate out the effects on their business. Unfortunately, the Arizona economy began to weaken at about the same time that the smoking ban was implemented. More generally, the restaurant and bar industry is highly competitive and therefore volatile.

While many prior studies utilized questions regarding the expected change in revenue or other measures, this question (the third one on the survey) was not emphasized when analyzing the results for two reasons. First, expected revenues are a projection that may not turn out to be accurate. Second, the statewide smoking ban took effect on May 1, 2007 — partway through the calendar year — but the wording of the question asked for expected revenue in the calendar year. When respondents were contacted between February and April of 2007, they were aware that the smoking ban would take effect on May 1, and probably took this into consideration in assessing their expectation of 2007 revenue. Respondents to the 2008 survey already had seen any effects of the smoking ban for eight months of 2007; it is unlikely their expectations would be worse in 2008 than 2007 because of the smoking ban.

Characteristics of Establishments

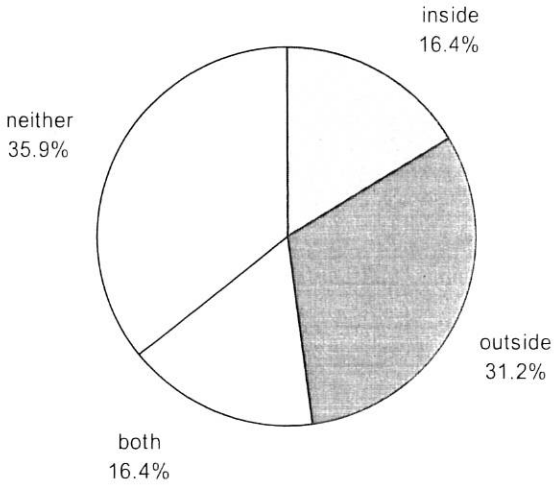
Establishments have been categorized into three types: bars, restaurants with liquor licenses, and restaurants without liquor licenses. Among those establishments that responded in both years, 31 percent were bars, 60 percent were restaurants with liquor licenses, and 9 percent were restaurants without liquor licenses. The responses of this subset were somewhat different from those of the subset that responded only in 2007: restaurants not serving alcoholic beverages accounted for a higher proportion at 18 percent, while the share of restaurants with liquor licenses was less at 51 percent. The differences were larger with those that responded only in 2008: half were restaurants without liquor licenses, 32 percent were liquor-serving restaurants, and 18 percent were bars. (Oversampling of those with a liquor license did not occur among those surveyed only in 2008.)

Among those who responded in both years, prior to the implementation of the smoking ban in 2007 approximately 16 percent allowed smoking both indoors and outside, 16 percent allowed

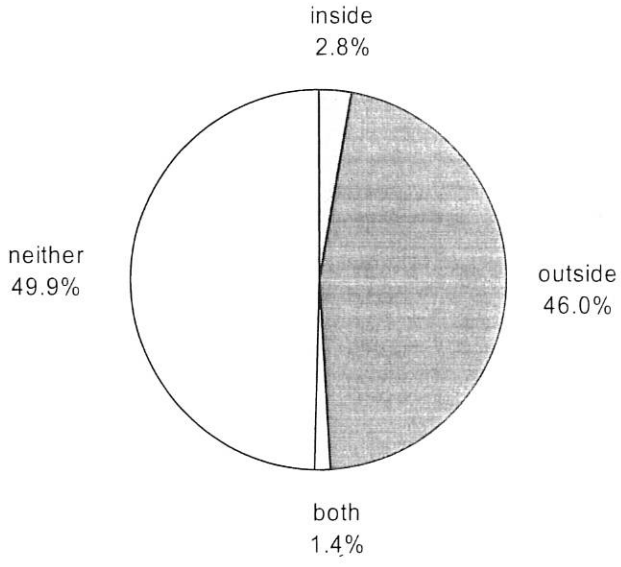
smoking inside, 31 percent permitted smoking only outside, and 36 percent did not allow smoking at all. Due to the implementation of the statewide smoking ban, the results in 2008 were radically different (see Chart 1): The percentage of those who allowed smoking outside increased to 46 percent, while the proportion not allowing smoking at all went up to 50 percent. Only 3 percent still allowed smoking inside and another 1 percent allowed smoking both inside and outside. Of the 15 establishments that indicated that smoking was allowed inside in 2008, seven are veterans and/or fraternal clubs exempt from the smoking ban. The other eight establishments appear to have improperly answered this question in that they are neither veterans or fraternal

CHART 1
ARIZONA RESTAURANTS AND BARS ALLOWING SMOKING IN 2007 AND 2008
(Subset of Those Establishments Responding in Both Years)

2007



2008



8-17

clubs nor located on an Indian reservation. (While a few respondents are located on leased land on Indian reservations, none allowed smoking indoors in either 2007 or 2008.)

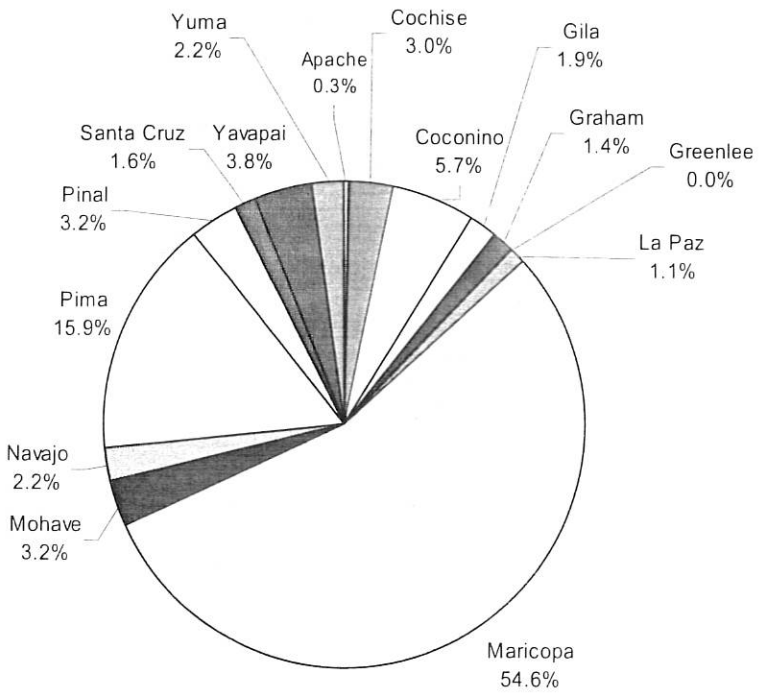
The increase in the proportion with outside smoking was related to an increase in the share of establishments that provided outside seating: from 55 to 60 percent. The increase in the share of establishments providing some form of entertainment ("ambience" in the survey instrument — examples include live music and sports television) was much greater, from 36 to 77 percent.

The length of time in business varied widely, ranging in 2007 from 11 percent in business less than or equal to one year to 12 percent in business for more than 30 years. Some discrepancies were noted in the 2008 responses relative to the 2007 responses. The length of time in business was similar among those responding only in 2007 or only in 2008.

Similarly, the restaurants and bars surveyed in both years had a wide range of seating capacity, with 3 percent having fewer than 30 seats and 11 percent having more than 300 seats. The average number of seats was lower among those responding only in 2007 or only in 2008.

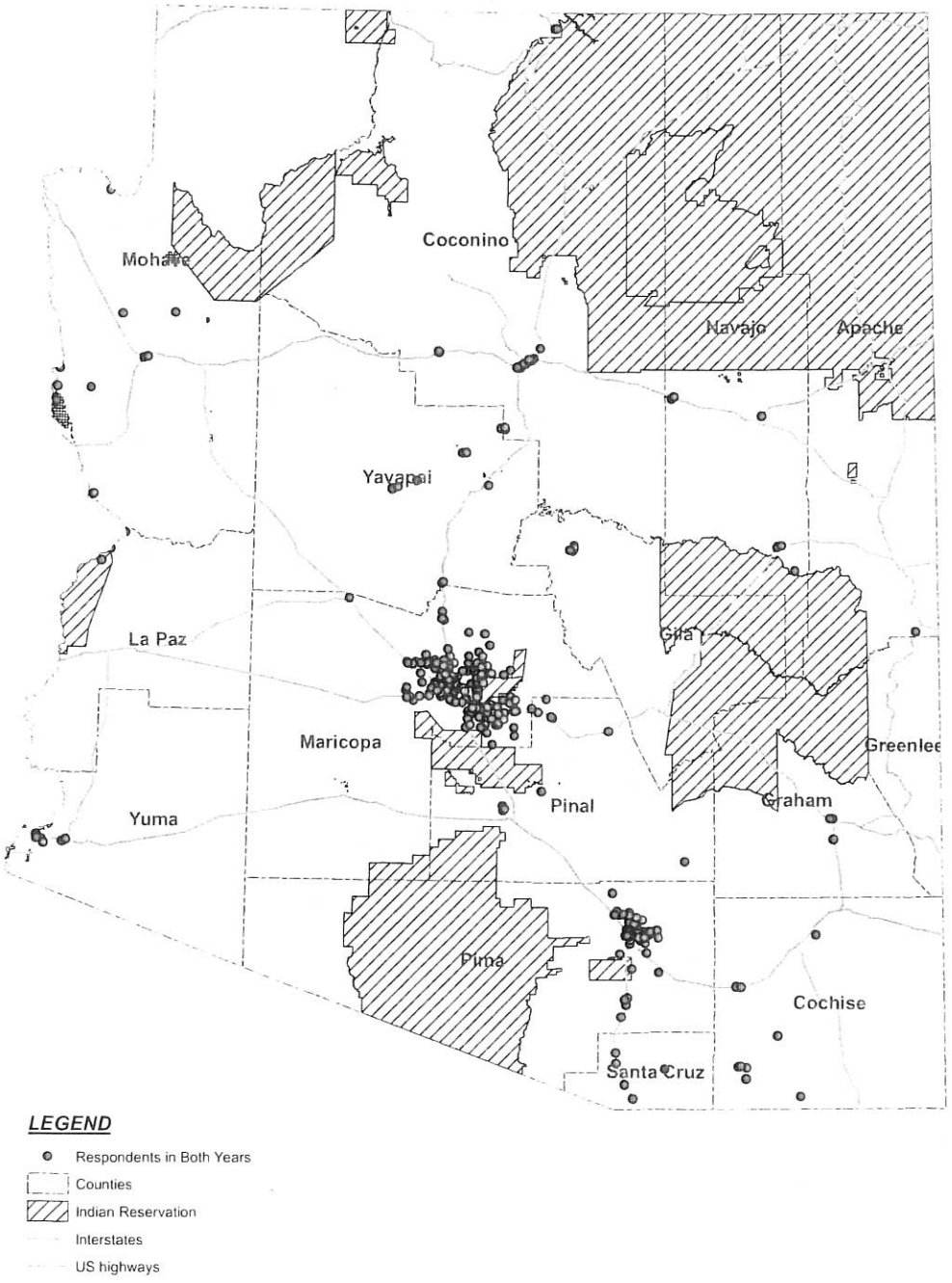
The location of those who responded in both years is presented by county in Chart 2. The shares generally are similar among those responding only in 2007 or only in 2008. For a more detailed depiction of the location of the responding establishments, see Map 1.

CHART 2
ARIZONA RESTAURANTS AND BARS BY COUNTY
(Subset of Those Establishments Responding in Both Years)



8-18

MAP 1
LOCATION OF THOSE ESTABLISHMENTS THAT RESPONDED IN BOTH 2007 AND 2008



8-19

The geographic distribution of respondents is similar to that of the establishments reported in County Business Patterns. In most counties other than Maricopa, the proportion of respondents was somewhat higher than the percentage of establishments in County Business Patterns. Thus, the less-populous areas of Arizona are somewhat overrepresented in the survey results.

In several Arizona communities — Flagstaff, Guadalupe, Prescott, Sedona and Tempe — a comprehensive smoking ban already was in place before the implementation of the statewide ban. Though the number of respondents from these municipalities is only 35, the 9 percent of the respondents located in these communities is greater than the population share of these communities.

Factors Affecting Businesses

Factors currently affecting establishments were categorized based on responses to the open-ended question regarding what most affected business. Among those responding in both years, the most common responses in 2007 (each with at least 10 percent of the responses) were categorized as "company specific," "seasonal/weather/tourism," "advertising/marketing," and "population shifts." In 2008, the most frequently mentioned factors were considerably different, with economic conditions by far most frequently mentioned, followed by the seasonal category, and gasoline prices.

The most dramatic shift between responses in 2007 and 2008 occurred in the economic conditions category, with the share increasing from 7 to 26 percent. More specific macroeconomic factors also were mentioned more frequently in 2008 than in 2007, including gasoline prices (11 percent versus 3 percent), consumer spending habits, and costs of inputs. The only other factors with more mentions in 2008 than 2007 were DUI laws and employer sanctions/immigration, both of which were infrequently mentioned.

In contrast, very large declines occurred between 2007 and 2008 in the number citing company-specific factors and advertising/marketing. Population shifts and seasonal/weather/tourism factors also were mentioned less often in 2008. The proportion of respondents citing the smoking ban as the major factor did not vary between 2007 and 2008, being approximately 4 percent in both years.

Table 1 provides complete responses to the question of the factor most affecting the business. As a whole, the responses in 2008 and 2007 are statistically different from each other. Few respondents indicated that the same condition was the most important in both years.

When asked more specifically whether local economic growth and population growth affected their business positively or negatively, 74 percent responded in 2007 that such conditions were a positive driver of business and only 4 percent answered negatively. However, in 2008 only 43 percent considered these conditions to have a positive effect while 13 percent found them to be negative. Only 9 percent had a more positive response in 2008 than 2007, while 43 percent had a more negative response.

Often economic growth brings competition into the market. When questioned about how nearby competition affects their business, 19 percent of survey respondents in 2007 saw it as a positive

TABLE 1
FACTOR MOST AFFECTING ARIZONA RESTAURANTS AND BARS IN 2007 AND 2008

	2007		2008		Change in
	Number	Percent	Number	Percent	Percent
Economic conditions	27	7.4%	97	26.5%	19.1
Gasoline prices	10	2.8	41	11.2	8.4
Consumer spending habits	4	1.1	24	6.6	5.5
Costs of inputs	10	2.8	19	5.2	2.4
DUI laws	1	0.3	10	2.7	2.4
Employer sanctions/immigration	0	0.0	6	1.6	1.6
Labor shortage	2	0.6	1	0.3	-0.3
Smoking ban	15	4.1	14	3.8	-0.3
Construction	17	4.7	16	4.4	-0.3
Minimum wage	8	2.2	1	0.3	-1.9
Competition	25	6.9	17	4.6	-2.3
Seasonal/weather/tourism	64	17.6	45	12.3	-5.3
Population shifts	35	9.6	14	3.8	-5.8
Advertising, marketing	37	10.2	7	1.9	-8.3
Company specific	70	19.3	32	8.7	-10.6
Other	17	4.7	10	2.7	-2.0
Not sure	21	5.8	12	3.3	-2.5
TOTAL	363	100.0	366	100.0	

factor, while 30 percent thought that nearby competition had a negative effect. Half of the respondents in 2007 said that nearby competition had no effect at all on their business. In 2008, the responses were somewhat different, with the percentage stating that competition is a positive influence and the share indicating it to be a negative factor both a little lower than in 2007. Compared to 2007, about one-fourth of the respondents had a more positive response in 2008, and a similar percentage had a more negative response.

When asked about the effect of changes in their neighborhood, half of the respondents answered positively in 2007. The positive share was only 30 percent in 2008, with the share indicating no effect higher than in 2007. Only 17 percent had a more positive response in 2008 than 2007, while 38 percent had a more negative response. Since neighborhood conditions are not likely to change appreciably in one year, it appears that among some of the individuals surveyed the response to this question was affected by the deterioration in general economic conditions.

Arizona voters in November 2006 also passed an initiative establishing a state minimum wage. On January 1, 2007, the minimum wage became $6.75, compared to the federal minimum of $5.15. When asked about the effects of the minimum wage, 38 percent of the respondents in 2007 saw it as a negative factor and 14 percent as a positive factor. Each of these shares was lower in 2008 as more than half felt that the minimum wage had no effect. Compared to 2007, about one-fourth of the respondents had a more positive response in 2008, and a percentage nearly as large had a more negative response.

The other question addressing the factors affecting business was the open-ended question "What do you think would improve the bottom line of your business?" While many responses were given, four categories stand out. "More customers" was the number one response in 2007 and ranked second in 2008 to the "economy." Advertising, especially in 2007, and "costs of inputs," especially in 2008, also were common responses. In contrast, repealing the smoking ban was cited by just 3 percent of the respondents in both years.

Business Conditions

As would be expected by the sizable increase in the number of respondents mentioning negative economic conditions as a factor affecting their business, the results from the first three questions of the survey in 2008 relative to 2007 reflect the worsening business conditions of the restaurants and bars that participated in the survey in both years.

Excluding respondents that indicated that they were a new business since the beginning of 2005 and therefore could not do the revenue comparison, 63 percent in the 2007 survey said that revenue in 2006 had increased at least 3 percent compared to 2005. In the 2008 survey, only 41 percent said that revenue in 2007 had increased at least 3 percent compared to 2006. Only 16 percent of the 2007 respondents said that revenue fell in 2006 by at least 3 percent, but in the 2008 survey, 36 percent said that revenue fell by at least that much in 2007. Responses to the question regarding the number of customers were similar.

Comparing the responses to the revenue question over the two years by respondent, 10 percent of the establishments had an increase in revenue in 2007 but had had no revenue change or a decline in 2006. Just more than half had the same response to the question in both years (e.g. revenue increased in each year). Thirty-nine percent either had a revenue loss in 2007 after having flat or rising revenues in 2006, or had flat revenues in 2007 after a gain in 2006.

Responses to the expected revenue question also reflect the deterioration in economic conditions. Seventy-eight percent of the 2007 respondents expected revenue to rise in 2007 (compared to an actual figure of 41 percent based on the 2008 survey), but only 48 percent expected a rise in 2008. Only 9 percent expected revenue to decline in 2007, but this figure was up to 26 percent in 2008.

The Smoking Ban as a Factor Affecting Business

Relatively few of those interviewed in both years mentioned the smoking ban as the primary factor affecting their business (approximately 4 percent in both 2007 and 2008). Less than 2 percent of the establishments cited the smoking ban in both years. A bit more than 2 percent mentioned the ban in 2007 but not 2008 and a similar proportion mentioned it in 2008 but not 2007. Among those who responded to the survey only in 2007, the smoking ban was cited as the factor most affecting the business by less than 5 percent. A similar percentage of those who responded to the survey only in 2008 mentioned it.

Part of the reason for the small percentage of respondents citing the smoking ban as the factor most affecting business is that the implementation of the statewide smoking ban forced only a minority of the eating and drinking establishments to change their smoking policy. More than half (53 percent) of the establishments were unaffected by the statewide ban in that either they

already did not allow smoking anywhere in their establishment or they were exempt from the ban (veterans or fraternal clubs). In addition, 4 percent of the establishments did not allow smoking in 2007, but added a smoking area outside by 2008. In 7 percent of the establishments, the implementation of the ban on inside smoking was offset by the creation of an outside smoking area. In 12 percent, the ban affected only a part of their establishment, with smoking still allowed in one area. Thus, only one-fourth of the establishments shifted from allowing smoking to banning smoking altogether.

However, the smoking ban was more frequently cited among one subgroup. Combining the survey questions on whether outside seating is available and on the establishment's smoking policy with the type of establishment (bar, restaurant with a liquor license, and restaurant without a liquor license) reveals that approximately one in five bars that allowed smoking throughout the establishment prior to the ban indicated in the 2007 survey that the ban was affecting their business. In the 2008 survey, a lesser proportion of these bars that had only inside seating in which smoking was now banned or that had inside and outside seating in which smoking was banned indoors cited the smoking ban as having the most effect. The decline in percentage in 2008 may result from the deterioration in general economic conditions that occurred between 2007 and 2008.

A smaller percentage of restaurants with liquor licenses that in 2007 allowed smoking throughout their business but that in 2008 had to implement the no-smoking policy indoors cited the smoking ban as having an effect. Only about 5 percent of such establishments mentioned the smoking ban in 2007, with the proportion slightly lower in 2008. Less than 1 percent of other eating and drinking establishments mentioned the smoking ban.

Interestingly, no significant difference in responses occurred between the subset of establishments that previously had been affected by a local smoking ban and those that had allowed smoking until the statewide ban was implemented. It may be that establishments affected by an earlier local smoking ban (only two respondents: one in 2007 and one in 2008) still were citing the smoking ban years later as the factor most affecting their business.

Establishments Citing the Smoking Ban as Having the Most Effect

Of those establishments that responded in both years, a small minority mentioned the smoking ban in the "most effect" question in each year. Drawing conclusions is hampered by the small number of respondents mentioning the smoking ban and by the small number of establishments in many of the subcategories. Thus, this section looks specifically at those establishments mentioning the ban by using **all** survey responses by year. Detailed results are presented in Table 2.

In the 2007 survey, revenue growth and customer growth in 2006 was about the same for establishments mentioning the smoking ban as for all respondents. In the 2008 survey, however, the smoking ban subset reported significantly worse revenue and customer growth in 2007 than the other respondents. Similarly, this subset had significantly more pessimistic responses to the question regarding expected revenue in the current year in both the 2007 and 2008 survey. The responses to this question were especially negative in 2007, and proved to be too pessimistic compared to the responses of the 2008 respondents on the question of revenue growth in 2007.

TABLE 2
RESPONDENTS INDICATING THAT THE SMOKING BAN WAS HAVING THE MOST EFFECT ON BUSINESS

	Responded in Both Years				Responded Only in 2007		Responded Only in 2008	
	2007		2008					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Smoking Ban Total	15	4.1%	14	3.8%	12	4.7%	21	4.7%
Establishment Type:								
Bars	11	10.3	8	7.4	10	13.7	15	18.3
Restaurants w Liquor	3	1.4	6	2.8	2	1.7	3	2.1
Restaurants wo Liquor	0	0.0	0	0.0	0	0.0	2	0.9
Detailed Type:								
Bar 1*	5	19.2	4	11.8	6	40.0	9	30.0
Bar 2*	5	20.8	3	6.3	3	18.8	6	17.6
Restaurant w 1*	2	7.1	4	5.1	0	0.0	2	4.0
Restaurant w 2*	1	4.3	2	3.1	2	22.2	1	2.2
Other	0	0.0	1	0.8	1	0.5	2	0.8
Prior Smoking Ban:								
No	14	4.2	13	3.9	12	5.3	21	5.1
Yes	1	3.0	1	2.9	0	0.0	0	0.0
County:								
Maricopa	5	2.5	6	3.0	4	2.8	7	2.8
Pima	0	0.0	3	5.2	5	9.1	7	8.4
Other	10	9.4	5	4.6	3	5.8	7	5.9
Seating Capacity:								
100 or Less	6	4.8	5	4.0	5	4.6	6	2.8
101-200	6	5.3	6	5.5	4	5.9	9	7.8
201 or More	3	2.6	3	2.6	3	4.7	6	7.3
Business Age (Years):								
2 or Less	1	1.4	1	2.4	2	3.8	3	4.8
3-5	1	1.6	2	2.9	3	7.1	2	2.4
6-10	4	5.4	5	6.3	4	7.4	5	4.6
11-20	5	6.8	1	1.4	2	4.4	7	7.3
21 or More	4	5.8	5	5.7	1	1.9	4	5.8
Entertainment Offered:								
No	5	2.2	3	3.7	6	4.0	1	1.0
Yes	10	7.7	11	3.9	6	6.0	20	5.8

*

Bar 1: Bars with inside seating only, smoking allowed in 2007 but not in 2008
Bar 2: Bars with inside and outside seating, smoking allowed throughout in 2007 but only outside in 2008
Restaurant w 1: Restaurants with liquor licenses with inside seating only, smoking allowed in 2007 but not in 2008
Restaurant w 2: Restaurants with liquor licenses with inside and outside seating, smoking allowed throughout in 2007 but only outside in 2008

Note: some figures do not add to the total because some respondents did not answer every question.

8-24

Those citing the smoking ban also were more negative on the effect of local growth on their business in both 2007 and 2008. However, the subset's responses to the neighborhood condition, minimum wage, and nearby competition questions were not significantly different from the larger group.

Some of those citing a negative effect from the smoking ban indicated the impact was significant:

- "The smoking ban caused a substantial decrease in business."
- "The smoking laws have caused us to lose our smoking customers."
- "The smoking law caused a 25 percent to 30 percent to 40 percent decrease in customers."
- "The smoking law in Arizona: 40 percent of our customers left as a result."
- "The smoking law dropped revenues by $15,000 monthly."
- "The smoking ban and the DUI law have caused a decrease in business. Eighty percent of bar goers are smokers; many neighboring bars have gone out of business."

Of the relatively small number of establishments that mentioned the smoking ban in response to the "most effect" question, a few indicated that the ban was having a positive influence on their business. In 2007, one respondent thought "Sales will increase as a result of changing to a nonsmoking restaurant." In 2008, one respondent noted "The increase we are seeing is due to the smoking ban. Different from other bars and establishments, we have a large amount of outdoor seating enabling people to smoke." These comments are in addition to those made by managers of veterans or fraternal clubs that noted an increase in business due to their being exempt from the smoking ban.

The establishments citing the smoking ban differ from other establishments in some regards. Those citing the ban are disproportionately bars that had allowed indoor smoking prior to the implementation of the smoking ban. A lower proportion has outside seating (significant in 2008 but not 2007) but a higher proportion offer entertainment (significant in 2007 but not 2008). A higher proportion are mid-sized and a lower share are small in seating capacity (significant in 2008 but not 2007). No difference exists between the two subsets in the age of the business. Though a lesser share are in communities that previously imposed a smoking ban, the difference is not significant.

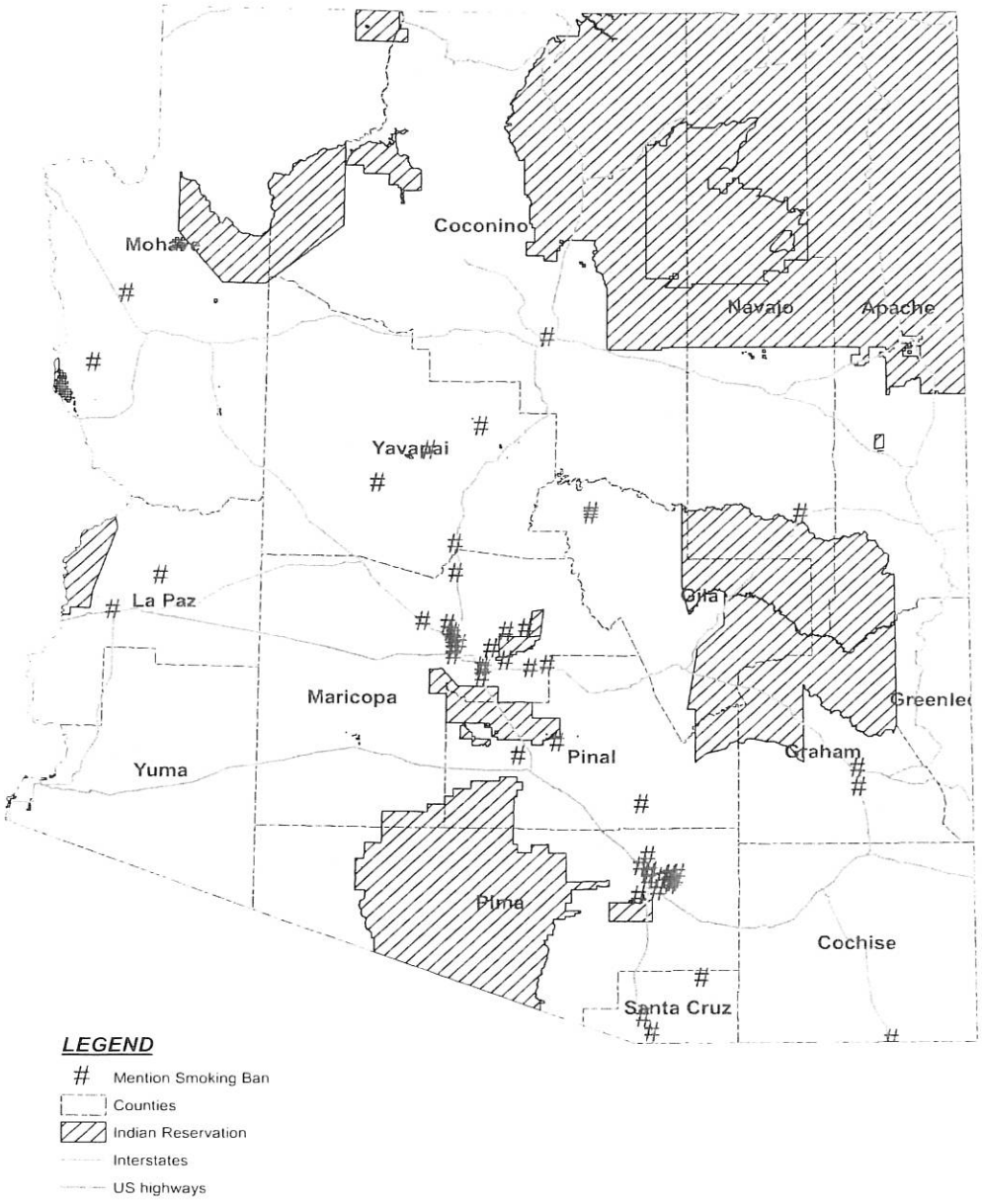
The locations of those establishments citing the smoking ban in either 2007 or 2008 are shown in Map 2. Relative to other establishments, in 2007 a significantly lower share were located in Maricopa County, with more especially in Pinal and Santa Cruz counties. In 2008, a lower share were in Maricopa County and a greater share in Pima County, but this relationship was not significant.

Differences in Responses Among Three Groups

Since few respondents cited the smoking ban as most affecting their business, this section looks at the relationships across three broader groups, again using all survey responses:

- Bars that allowed smoking throughout their facility prior to the implementation of the smoking ban, including those with only inside seating and those with both inside and outside seating, and no longer allow smoking indoors.

MAP 2
LOCATION OF THOSE ESTABLISHMENTS THAT CITED THE SMOKING BAN AS HAVING THE MOST EFFECT ON THEIR BUSINESS
(Based on All Responses From Either 2007 or 2008)



8-26

- Restaurants with liquor licenses that allowed smoking throughout their facility prior to the implementation of the smoking ban, including those with only inside seating and those with both inside and outside seating, and no longer allow smoking indoors.
- All other eating and drinking establishments.

The rationale for selecting these three groups is that the bar subset had the highest proportion citing the smoking ban (23 percent in 2007 and 15 percent in 2008), the restaurant subset had a small percentage cite the ban (6 percent in 2007 and 4 percent in 2008), while almost none of the other establishments mentioned the ban (less than 1 percent in both years). Sample size is greater in these groups than in the subset of those citing the ban as having the most effect.

Many of the results are significantly different across the three groups. In both years, the "all-else" group reported stronger growth in revenue in the prior year, with the restaurant group having slightly weaker gains than the bar subset. The same was true of the growth in customers, though the relationship was not significant in 2008. Expected growth in 2007 was strongest in the all-else group and slightly higher among the restaurant subset than the bar subset. The relationship was not significant in 2008, though the restaurant group had the weakest expectations.

Thus, though bars have been found in previous studies as well as in the current study to have the highest incidence of a perceived negative impact from a smoking ban, a differential does not exist between the bar and restaurant groups in either actual or expected revenue growth — even though the bars citing the smoking ban reported weaker revenue figures. The bar subset reported stronger revenue growth in both 2006 and 2007 than the restaurant subset (though weaker than the all else group). Expected growth was similar in the two groups in each year. This supports the conclusion that while some bars may be affected adversely by the smoking ban, others with the similar characteristics have benefited from the ban.

Looking at the four factors specifically included in the survey, the 2007 results show significant differences across the three groups in each case, but in only one factor is the relationship significant in 2008. Interpreting the results as the difference between the percentage responding 'positive' and the share answering 'negative,' bars reported the weakest numbers on the local growth and neighborhood conditions factors, but the strongest numbers on the minimum wage and nearby competition factors. The restaurant subgroup had the weakest figures on the minimum wage and competition factors.

Some of the characteristics of the three groups also are significantly different. Establishments in the all-else group have the smallest average capacity, those in the bar subset have been in business the longest, and the sample included relatively few bars in Maricopa County. In 2007, bars offered significantly more entertainment, but the relationship was not significant in 2008.

Change in Growth Rate of Revenue Between 2006 and 2007

The first question on the survey asked whether revenue in the prior calendar year increased (by more than 3 percent), stayed about the same, or decreased (by more than 3 percent) relative to the year before. A variable capturing the change in growth rate of the prior year revenue between the responses in 2007 and 2008 was created. The constructed variable of change in revenue between 2006 and 2007 has three possible values: (1) improvement, for example if the

respondent said 2007 revenue increased but that revenue decreased or stayed the same in 2006; (2) no change; and (3) deterioration. A similar variable could be created for the second question on the survey, regarding the number of customers, but since its results are similar to those of the first question, the analysis in this section is limited to the revenue question. This analysis is based only on those restaurants and bars that responded to the survey in each year.

Revenue growth was higher in 2007 than in 2006 for only 10 percent of respondents. It was lower for 39 percent. The constructed change in revenue variable was not significantly related to most of the other variables. For example, revenue growth in 2007 relative to 2006 was not significantly different between bars, restaurants with liquor licenses, and restaurants without liquor licenses. Thus, the hypothesis that bars would be most affected by the smoking ban, followed by restaurants with liquor licenses, was not proven. In fact, bars performed the strongest in 2007 relative to 2006.

Similarly, the change in revenue was not related to the variable that combined smoking policy with the presence of outside seating. Looking specifically at those establishments that cited the smoking ban as the factor having the most effect, the relationship also was not significant, though those citing the ban in 2008 had a worse performance on the change in revenue.

Another hypothesis is that establishments located in a community that already had a local smoking ban in place prior to the implementation of the statewide smoking ban should not have been impacted by the statewide ban. Thus, if the statewide smoking ban is affecting business conditions, it is expected that the change in revenue between 2006 and 2007 would have been more favorable among establishments subject to a prior smoking ban. While the change in revenue was stronger at establishments in the communities with an earlier ban (21 percent improving and 28 percent deteriorating), the difference in the responses from establishments in communities without an earlier ban was not significant.

Similarly, though respondents in communities with a prior ban were slightly more optimistic on expected revenue in the current year in both 2007 and 2008, the results were not significantly different from those of establishments not affected by a prior smoking ban. A constructed variable that compared the responses over the two years to the expected revenue question also did not display a significant difference between the subset of establishments that had been subject to a prior smoking ban and other establishments.

The change in revenue was positively related to the change in responses to the local growth and neighborhood conditions factors, with the latter relationship significant. That is, establishments with an improvement in revenues between 2006 and 2007 also tended to respond more favorably in 2007 than 2006 to the questions regarding the effect of local growth and neighborhood conditions on their business.

Closed Businesses

A total of 38 establishments that responded to the 2007 survey were found to be out of business in 2008. An effort was made to determine why these businesses failed, by trying to locate the owners or by contacting the landlords. Three of the 38 establishments were closed temporarily for remodeling or moving. Of the other 35, information was collected on 13. Various reasons

were given for the closing of the establishment, such as poor location or poor business skills of the owner, but none mentioned the smoking ban as a reason.

The 35 establishments that closed over the course of the year made up only 5 percent of the total contacted in 2007. This is less than the average number expected to close in a year, based on the age of the establishments that participated in the 2007 survey and information on the number of business failures by age of business. (See Professor Scott Shane of Case Western Reserve University at http://www.smallbiztrends.com/2008/04/startup-failure-rates.html/ and Professor H.G. Parsa of Ohio State University at http://researchnews.osu.edu/archive/restfail.htm).

A comparison of the results of the 2007 survey of the 35 businesses that permanently closed to all respondents in 2007 shows some significant differences. First, a much lower share of the closed businesses were bars. Second, a much higher percentage of the closed businesses had opened in the last year. Third, of those open for a longer period, revenue performance in 2006 of the closed businesses was markedly weaker. Fourth, expected revenue performance in 2007 was weaker among businesses that closed. Fifth, the responses to the most effect question were considerably different among the closed businesses, with higher proportions indicating a company-specific reason, competition, and gasoline prices, as well as a higher proportion being unsure. Sixth, not one of the closed businesses mentioned the smoking ban, either as the factor most affecting business or on the question as to what would most improve the bottom line.

ANALYSIS OF ACTUAL RESTAURANT AND BAR SALES

State government transaction privilege (sales) taxes collected by Arizona retailers and sent to the Arizona Department of Revenue (DOR) is the source of the sales data. The tax data are reported by DOR as of the month in which DOR receives the tax revenues, which typically is the month after the taxable sales were made. The DOR data represent an accounting series, not an economic time series, in that reporting errors (for example, late reporting by a retailer or reporting in an incorrect category) are not corrected. Aggregate sales tax collections are reported by the department, but data for individual companies are not available.

Transaction privilege taxes are classified into a number of categories. For this analysis, taxes collected in two categories are of interest. The retail sales category includes the subcategories of general merchandise, apparel and accessories, furniture, building materials, food stores (only the taxable items — food to be consumed at home is exempt from the state sales tax), motor vehicles, other vehicles, and miscellaneous retail sales. The other category of interest is restaurants and bars.

In this section, the aggregate sales tax data are investigated to determine if the smoking ban had a noticeable effect on overall activity at restaurants and bars. Two separate time series of sales tax data are examined. First, a 23½-year time series of quarterly data for the retail and restaurant and bar categories are analyzed. Second, a shorter 3½-year time series of monthly data for subcategories of the retail sales and restaurant and bar categories are examined.

Long Time Series of Broad Categories

For the longer period, quarterly data from first quarter 1985 through second quarter 2008 are used. The long time series consists of the restaurant and bar category, the retail category, and the retail category less the motor vehicle subcategory.

Restaurant and bar sales in Arizona follow a seasonal pattern, in part due to tourists and seasonal residents. Over time, a strong trend is present in the unadjusted data, reflecting growth in the Arizona population and economy, as well as inflation. In the last 5 quarters (since the smoking law was enacted in May 2007) the rate of growth in restaurant and bar sales has slowed. The initial decrease was similar to that preceding the last recession in 2001, but since late 2007 the year-over-year comparison is the weakest since the time series began in 1985.

The smoking ban is only one of several possible causes of the weakness in restaurant and bar sales since spring 2007. The overall Arizona economy has deteriorated considerably since then due in large part to the serious problems in the housing sector, with rising energy costs also contributing. The employer sanctions law that went into effect at the beginning of 2008 also may be contributing to the atypical slowing since late 2007. Stricter enforcement of DUI laws in recent months also may have impacted sales adversely at establishments that offer alcohol.

In order to sort out the possible causes of the slowdown in retail and bar sales, a comparison is made to sales in the retail category. As seen in Chart 3, the unadjusted year-over-year percentage growth rates in retail sales and restaurant and bar sales have been similar. Since mid-2006, the

CHART 3
YEAR-OVER-YEAR PERCENT CHANGE IN UNADJUSTED SALES IN ARIZONA

retail category has fared worse than the restaurant and bar category, with no change in the relationship apparent when the smoking ban went into effect (the vertical line indicates the implementation of the smoking ban).

Comparing Actual Restaurant and Bar Sales to Forecasted Values

Based on multiple regression analysis using year-over-year percent changes from the beginning of 1986 through the first quarter of 2007 (until the smoking ban went into effect), a forecast of the value of restaurant and bar sales can be made as if the smoking ban had not taken effect. Three regressions were estimated, each with the amount of total restaurant and bar sales as the dependent variable. Since the dependent variable was not adjusted for seasonality, inflation, or population growth, independent variables were included in each regression to account for seasonality (three dummy variables) and trend.

In the first regression, the total amount of retail sales in the state is the key independent variable. In the second version, total retail sales less motor vehicle sales is the key independent variable. Motor vehicle sales are netted out of aggregate retail sales under the assumption that big-ticket transactions like automobiles are discretionary purchases that behave far differently than restaurant and bar sales. In the third version, other than the trend and seasonal variables, two independent variables are used: the level of personal income and the year-over-year percent change in employment.[3] In each regression, a significant amount of the variance of restaurant and bar sales over the time series is explained.

[3] Numerous variations of this model were tested. Alternatives included levels and differences of personal income and employment as well as distributed lag specifications. The specification was chosen based on in-sample

From each regression equation, forecasted values of restaurant and bar sales were calculated from the coefficients of each independent variable and the actual values of those independent variables. In the third regression, personal income and employment data for the first two quarters of 2008 had to be estimated. These estimates were consistent with the estimates used in the baseline scenario of the state revenue forecasting model of the Office of Strategic Planning and Budget (OSPB).[4]

The forecasted values from each of the three forecasting models are shown in Chart 4. The forecasts are accompanied by the 95 percent confidence interval for the forecasts as well as the actual restaurant and bar sales data. Based primarily on the retail category (the top graph), restaurant and bar sales during the five quarters since the implementation of the smoking ban have been higher than predicted, exceeding the upper bound on the confidence interval of the forecast in each quarter. These results are consistent with the evidence in Chart 3, suggesting that restaurant and bar sales in recent quarters have been historically low but robust when compared to the overall pace of retail sales. Based primarily on the retail category less the motor vehicle subcategory (the middle graph), restaurant and bar sales during the five quarters since the implementation of the smoking ban also have been higher than predicted, near or above the upper bound of the confidence interval of the forecast in each quarter.

The results from the third regression (the bottom graph), which is based on a model of economic activity as measured by the level of state personal income and the growth in employment, are considerably different. In this model, predicted restaurant and bar sales are close to the actual value, being higher in two quarters and lower in three quarters. The actual value is within the confidence interval in three quarters and slightly above the upper bound in two quarters.

Thus, the analysis of the restaurant and bar category using the long time series provides no evidence that the smoking ban adversely affected aggregate restaurant and bar sales.

Short Time Series of Specific Categories

Since 2004, DOR has compiled data on tax collections by the NAICS (North American Industry Classification System) classification of each retail, restaurant and bar establishment. Thus, for this shorter time period, the restaurant and bar category can be subdivided into a full-service restaurant subcategory (most establishments in this subcategory have a liquor license), a limited-service restaurant subcategory (few establishments in this category have a liquor license), and a bar subcategory (establishments in this subcategory derive the majority of their revenues from the sale of alcohol).

Similarly, the retail category can be subdivided into a number of subcategories. The value of these subcategories to this study on the smoking ban is to distinguish "day-to-day" retail purchases from big-ticket items such as automobiles and furniture. The day-to-day purchases

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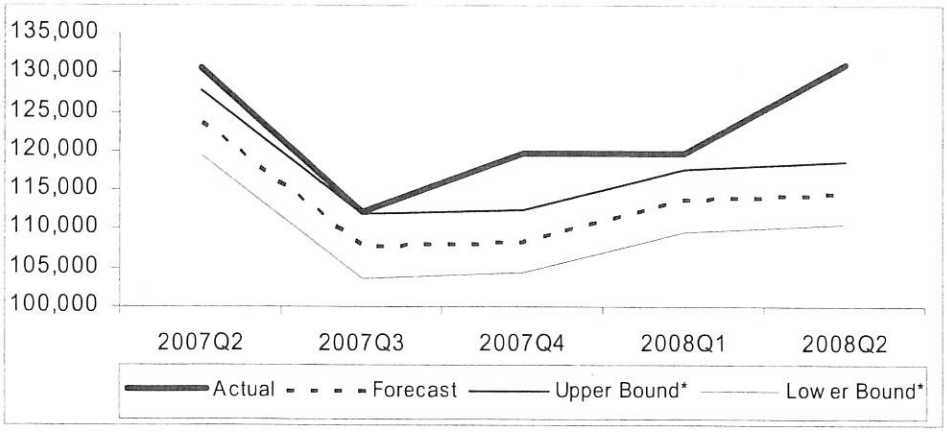
explanatory power of the variables. Specification alternatives had no impact on the overall conclusions of the analysis.

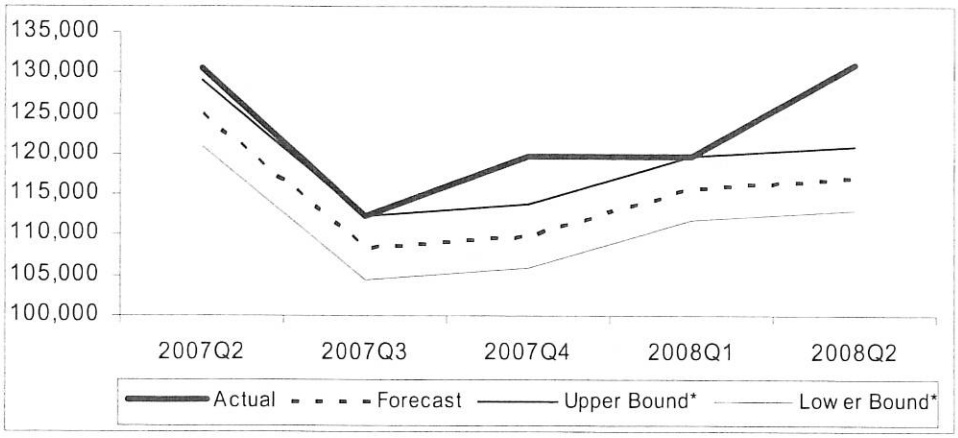
[4] Data on personal income by state are available only after considerable lags and are subject to revision. Given the slow pace of growth in the Arizona economy in 2008, OSPB estimates personal income growth to be 3.5 percent for quarter 1 and 2.0 percent for quarter 2. Data used for the employment growth forecasts are consistent with the most recent forecasts released by research economists at the Arizona Department of Commerce. For the first half of 2008, wage and salary employment declined at approximately a 1 percent pace.

CHART 4
RESTAURANT AND BAR TAX COLLECTIONS IN ARIZONA
(In Thousands of Dollars)

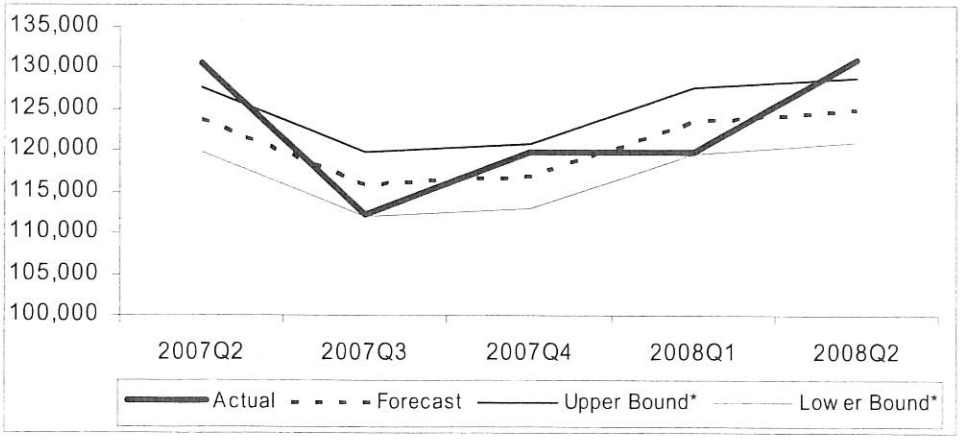
FORECAST BASED ON RETAIL



FORECAST BASED ON RETAIL LESS MOTOR VEHICLES



FORECAST BASED ON PERSONAL INCOME AND EMPLOYMENT



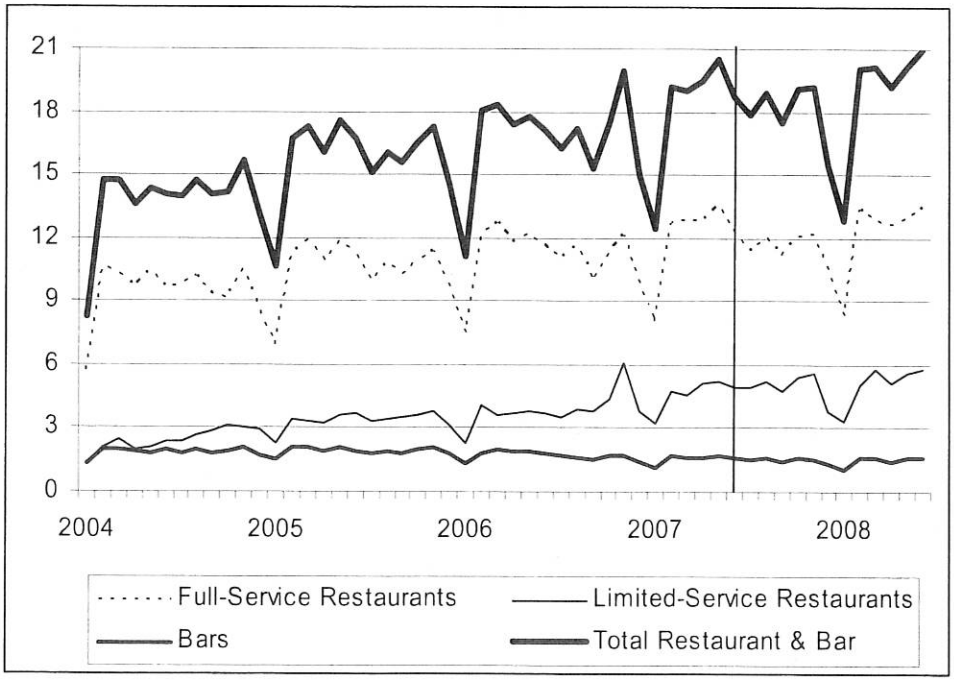
* Of confidence interval

include taxable sales at food and liquor stores, miscellaneous retail purchases (at an array of specialty retailers, such as pharmacies, florists, and electronics warehouses), and general merchandise stores (mainly department stores and discount warehouses). In addition to considering each of these three subcategories separately, these three subcategories are totaled to provide an overall measure of retail sales minus infrequently purchased big-ticket items.

The analysis is focused on the ratios of sales in the various subcategories of restaurants and bars to sales in the various subcategories of retail. In particular, the ratios of full-service restaurant sales, limited-service restaurant sales, bar sales, and total restaurant and bar sales to retail sales minus the big-ticket items were analyzed and are presented in Chart 5.

Each ratio has a marked seasonal pattern, declining sharply in the holiday season as general retail purchases surge. Ignoring seasonality, overall restaurant and bar sales steadily increased as a ratio to retail sales less big-ticket items from 2004 into 2008. The increase in the ratio resulted from gains in both the full-service restaurant and limited-service restaurant subcategories. In contrast, bar sales increased slightly faster than did retail sales early in the period but then grew at a slower pace for much of the last three years, resulting in a declining ratio of bar sales to retail sales. However, no change in the slope of the line is apparent at the time the smoking ban took effect.

CHART 5
RESTAURANT AND BAR SALES IN ARIZONA
AS A RATIO OF RETAIL SALES LESS BIG-TICKET ITEMS



Comparing Actual Ratios to Forecasted Values

Using an approach similar to the regression analysis of the long time series, forecasted values of the ratios can be calculated from the regression results using the data in the period preceding the implementation of the smoking ban. Given the limited time period from 2004 through early 2007, the specifications of the forecasting models are very simple, including only a constant term, a time trend (and a quadratic trend in the equation with bar sales as the dependent variable, to account for the rising and then falling ratio), and a dummy for the holiday season to capture the obvious seasonality.

Given the shorter time period and monthly data used in these models, the fit is not as high as that of the long time series of quarterly data (the adjusted R-square exceeded .99 in each of the three models using the long time period). Still, the adjusted R-square is high at .80 for total restaurants and bars, .77 for full-service restaurants, and .68 for bars.

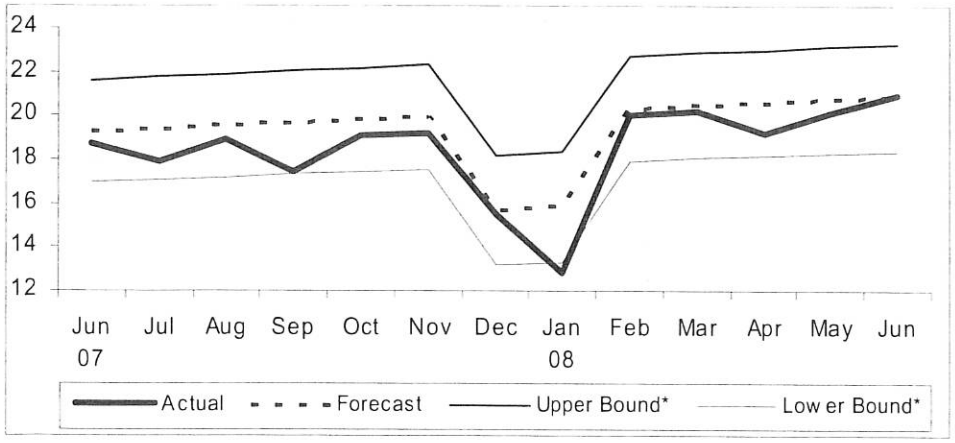
The forecasted ratios from each of three forecasting models (the ratios of full-service restaurant sales, bar sales, and total restaurant and bar sales to retail sales minus the big-ticket items) are shown in Chart 6. The forecasts are accompanied by the 95 percent confidence interval for the forecasts as well as the actual restaurant and bar sales data.

The top graph in Chart 6 shows that actual restaurant and bar sales as a ratio of retail sales less big-ticket items since the implementation of the smoking ban have been close to but slightly below the forecasted values in most months. January 2008 is the only month in which the ratio was below the lower confidence bound. The January 2008 figure represents sales made in December 2007, the peak month of retail activity. Further, legal challenges to the employer sanctions law were rejected in this month and the law was about to take effect. Hence, it is far more likely that the employer sanctions law or a random fluctuation, not the smoking ban, influenced the abnormally low ratio in that one month. The comparison of the actual to forecasted ratio in the full-service restaurant subcategory (the middle graph) is similar, though all actual values are within the confidence interval.

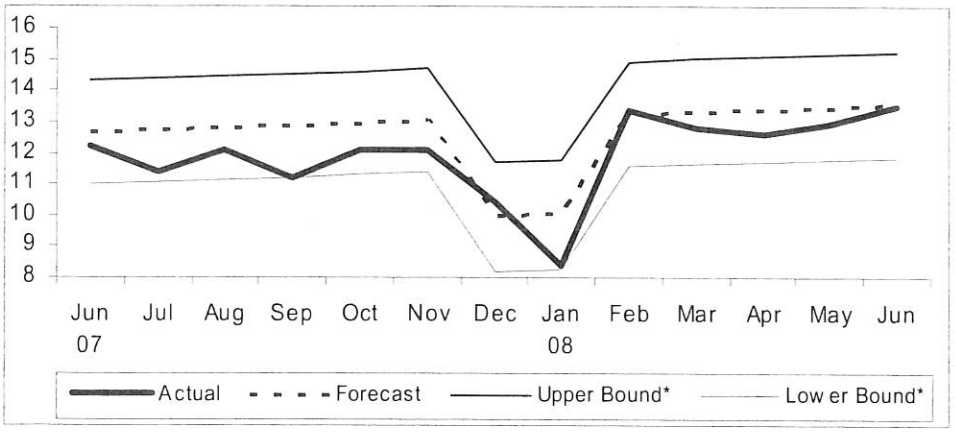
In contrast, in the bar subcategory (the bottom graph), the category hypothesized as most likely to feel adverse effects from the smoking ban, the actual ratio in each month was higher than the forecasted value, with some months exceeding the upper bound of the confidence interval. Thus, like the analysis of the long time series, the analysis of the short time series does not reveal that aggregate restaurant and bar sales were adversely affected by the smoking ban.

CHART 6
RATIO OF RESTAURANT AND BAR TAX COLLECTIONS TO TAX COLLECTIONS OF RETAIL LESS BIG-TICKET ITEMS IN ARIZONA

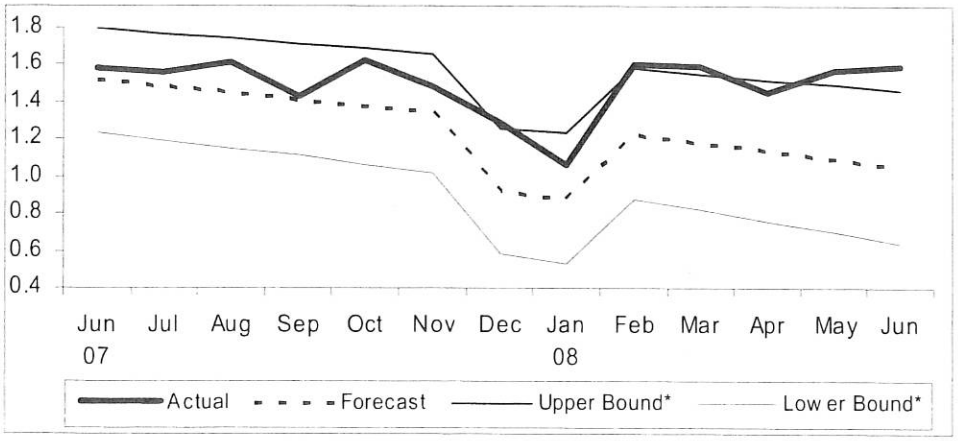
FORECAST OF ENTIRE RESTAURANT AND BAR CATEGORY



FORECAST OF FULL-SERVICE RESTAURANT SUBCATEGORY



FORECAST OF BAR SUBCATEGORY



* Of confidence interval

8-36

CONCLUSIONS

The conclusions from this study are consistent with those of most prior studies regarding the economic effect of smoking bans. Based on actual aggregate sales data, no effect of the smoking ban has been found. However, this finding is not necessarily inconsistent with consumer behavior changing as a result of the smoking ban. For example, it may be that smokers are not spending as much at restaurants and bars, but that this is offset by nonsmokers spending more at restaurants and bars that no longer allow smoking. It also is possible that smokers still are frequenting bars without a smoking area, but are stepping outside periodically to smoke. Both of these examples are consistent with the aggregate finding of no effect, and also should not have resulted in certain establishments being affected disproportionately.

However, a third possibility that is consistent with the finding of no aggregate effect could result in some restaurants and bars being adversely affected. Smokers still may be spending as much at restaurants and bars, but have switched from establishments without a smoking area to ones that have an outside patio in which smoking is allowed. If this is occurring, the negative effect on individual establishments is not seen in the overall data because other establishments have benefited from the ban.

The other empirical evidence to examine is whether a disproportionate number of establishments failed following the implementation of the smoking ban. However, the percentage of restaurants and bars surveyed in 2007 that had closed by 2008 was not higher than expected, and the number of bars failing was quite small. Not one of the closed businesses mentioned the smoking ban in the 2007 survey, nor was the ban mentioned once in the minority of closed businesses for which reasons for their closing were obtained. Thus, if the smoking ban is having an adverse effect, the effect is not so severe as to cause a business to fail.

Thus, a detailed look at the survey results must be relied upon to provide insight into any effect of the smoking ban. However, surveys are subject to sampling error and nonresponse bias. Further, survey results are subjective. For example, it may be difficult for an owner or manager to determine if a decline in business activity is a result of the smoking ban, the decline in general economic conditions, or some other factor.

While the survey results indicate that only 4 percent of the respondents indicate that the smoking ban was having the most effect on their business, this is misleading in that more than half of the establishments were unaffected by the statewide ban in that either they were exempt from the ban (for example, veterans or fraternal clubs) or already had smoking restrictions in place (either voluntarily or as a result of a local smoking ban).

Combining the survey questions on whether outside seating is available and on the establishment's smoking policy with the type of establishment (bar, restaurant with a liquor license, and restaurant without a liquor license) reveals that one in five bars that allowed smoking throughout the establishment prior to the implementation of the statewide smoking ban indicated in the 2007 survey that the ban was affecting their business. In the 2008 survey, a lesser proportion of these bars that had only inside seating in which smoking was now banned or that had inside and outside seating in which smoking was banned indoors cited the smoking ban

as having the most effect. The decline in percentage in 2008 may result from the deterioration in general economic conditions that occurred between 2007 and 2008.

The other establishments to cite the smoking ban as having an effect were restaurants with liquor licenses that in 2007 allowed smoking throughout their business but that in 2008 had to implement the no-smoking policy indoors. However, only about 5 percent of such establishments mentioned the smoking ban in 2007, with the proportion slightly lower in 2008.

Interestingly, no significant difference in responses occurred between the subset of establishments that previously had been affected by a local smoking ban and those that had allowed smoking until the statewide ban was implemented. It may be that establishments affected by an earlier local smoking ban still were citing the smoking ban years later as the factor most affecting their business.

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APPENDIX A: SURVEY INSTRUMENT

The surveys used in 2007 and 2008 were identical except for the year referred to in various questions. The following reproduces the survey as used in 2007. Note that before the following script was initiated, it was ascertained that the respondent was an owner or manager.

Hello, my name is _____ and I'm calling from the W. P. Carey School of Business at Arizona State University. We are conducting a study about local economic conditions and what might be affecting your business's bottom line. The survey should only take about five minutes of your time and will help the community by providing information about Arizona business conditions. All individual business information will be held confidential. Do you mind if I ask you a few questions?

YES = Continue to survey
NO = Is there a time that might be more convenient?

If no again, then thank them for their time and hang up.

AFTER "YES" RESPONSE:

You may skip any questions or stop at any time.

Thinking about your business's 2006 revenue compared to 2005, did your revenue

- Increase by more than 3 percent
- Stay about the same
- Decrease by more than 3 percent

Thinking about your customers in 2006 compared to 2005, has the number of customers

- Increased
- Stayed the same
- Decreased

Thinking about 2007's revenue compared to 2006, do you expect your revenue to

- Increase
- Stay about the same
- Decrease

What is having the most effect on your business right now? _____

For the following factors that might affect your business, please tell us whether they have had a positive, negative or no effect:

- Local economic growth including population growth
- Improvements or deterioration of the neighborhood
- The minimum wage
- The amount of competition you have nearby

What do you think would improve the bottom line of your business?

Thank you for your input about these issues. We only have a few more questions about the type of business you have.

What type of restaurant/bar do you have (pizzeria, bar with music)?

What is the capacity of your restaurant/bar?

Do you have outside seating?

Is smoking allowed inside, outside, both, or neither?

Does your business have any other ambience (live music etc)?

How long have you been in business?

Thank you so much for your participation. May we call you back in one year to follow up with how your business has done during 2007?

8-42

APPENDIX B: COMPLETE SURVEY RESULTS

SURVEY QUESTIONS	Responded in Both Years 2007 Number	2007 Percent	2008 Number	2008 Percent	Responded Only in 2007 Number	Only in 2007 Percent	Responded Only in 2008 Number	Only in 2008 Percent
Revenue Compared to Prior Year:								
Increase by >3%	190	55.1%	134	38.8%	132	50.2%	116	29.6%
Stay the Same	63	18.3	77	22.3	45	17.1	99	25.3
Decrease by >3%	49	14.2	118	34.2	49	18.6	158	40.3
New Business	43	12.5	16	4.6	37	14.1	19	4.9
TOTAL	345	100.0	345	100.0	263	100.0	392	100.0
Customers Compared to Prior Year:								
Increase by >3%	189	53.7	120	34.2	141	53.0	117	29.2
Stay the Same	59	16.8	85	24.2	46	17.3	100	24.9
Decrease by >3%	61	17.3	130	37.0	42	15.8	163	40.7
New Business	43	12.2	16	4.6	37	13.9	21	5.2
TOTAL	352	100.0	351	100.0	266	100.0	401	100.0
Expected Revenue in Current Year:								
Increase	263	77.8	164	47.8	189	74.4	171	43.4
Stay the Same	46	13.6	91	26.5	37	14.6	119	30.2
Decrease	29	8.6	88	25.7	28	11.0	104	26.4
TOTAL	338	100.0	343	100.0	254	100.0	394	100.0
Most Effect on Business:								
Advertising/Marketing	37	10.2	7	1.9	20	7.9	12	2.7
Company Specific	70	19.3	32	8.7	48	19.0	46	10.3
Competition	25	6.9	17	4.6	20	7.9	21	4.7
Construction	17	4.7	16	4.4	15	5.9	21	4.7
Consumer Spending	4	1.1	24	6.6	2	0.8	20	4.4
Costs of Inputs	10	2.8	19	5.2	3	1.2	29	6.4
DUI Laws	1	0.3	10	2.7	0	0.0	9	2.0
Economic Conditions	27	7.4	97	26.5	18	7.1	131	29.1
Employer Sanctions	0	0.0	6	1.6	0	0.0	9	2.0
Gasoline Prices	10	2.8	41	11.2	12	4.7	41	9.1
Labor Shortage	2	0.6	1	0.3	1	0.4	2	0.4
Minimum Wage	8	2.2	1	0.3	5	2.0	5	1.1
Population Shifts	35	9.6	14	3.8	16	6.3	13	2.9
Seasonal/Weather	64	17.6	45	12.3	49	19.4	36	8.0
Smoking Ban	15	4.1	14	3.8	12	4.7	21	4.7
Other	17	4.7	10	2.7	16	6.3	8	1.8
Not Sure	21	5.8	12	3.3	16	6.3	26	5.8
TOTAL	363	100.0	366	100.0	253	100.0	450	100.0
Local Economic & Population Growth:								
Positive	271	73.6	150	42.5	191	71.0	191	43.2
Negative	16	4.4	46	13.0	8	3.0	60	13.6
No Effect	74	20.1	145	41.1	55	20.5	171	38.7
Not Sure	7	1.9	12	3.4	15	5.6	20	4.5
TOTAL	368	100.0	353	100.0	269	100.0	442	100.0

SURVEY QUESTIONS	Responded in Both Years 2007 Number	2007 Percent	2008 Number	2008 Percent	Responded Only in 2007 Number	Responded Only in 2007 Percent	Responded Only in 2008 Number	Responded Only in 2008 Percent
Neighborhood Conditions:								
Positive	183	49.9%	106	30.0%	130	48.5%	125	28.6%
Negative	45	12.3	48	13.6	39	14.6	79	18.1
No Effect	133	36.2	188	53.3	90	33.6	219	50.1
Not Sure	6	1.6	11	13.1	9	3.4	14	3.2
TOTAL	367	100.0	353	100.0	268	100.0	437	100.0
Minimum Wage:								
Positive	51	14.0	38	10.6	47	17.5	45	10.1
Negative	138	37.9	117	32.5	87	32.5	157	35.2
No Effect	161	44.2	198	55.0	124	46.3	233	52.2
Not Sure	14	3.9	7	1.9	10	3.7	11	2.5
TOTAL	364	100.0	360	100.0	268	100.0	446	100.0
Nearby Competition:								
Positive	69	18.8	58	16.2	52	19.5	63	14.3
Negative	110	30.0	92	25.6	76	28.5	97	22.0
No Effect	184	50.1	205	57.1	133	49.8	272	61.7
Not Sure	4	1.1	4	1.1	6	2.3	9	2.0
TOTAL	367	100.0	359	100.0	267	100.0	441	100.0
Improve Business Bottom Line:								
Advertising	55	16.0	45	12.9	43	17.3	57	13.3
Company Specific	16	4.7	17	4.9	11	4.4	29	6.7
Competition	7	2.0	7	2.0	5	2.0	8	1.9
Construction	7	2.0	4	1.1	7	2.8	14	3.3
Costs of Inputs	26	7.6	49	14.0	20	8.0	45	10.5
DUI Laws	0	0.0	3	0.9	0	0.0	8	1.9
Economic Conditions	27	7.9	60	17.1	19	7.6	75	17.4
Government Policies	3	0.9	9	2.6	2	0.8	11	2.6
Increase in Sales	14	4.1	20	5.7	11	4.4	28	6.5
Minimum Wage	6	1.7	3	0.9	4	1.6	9	2.1
More Customers	69	20.1	52	14.9	38	15.3	50	11.6
Remodel	13	3.8	6	1.7	17	6.8	12	2.8
Repeal Smoking Ban	10	2.9	12	3.4	5	2.0	11	2.6
Seasonal/ Weather/ Tourism	13	3.8	7	2.0	6	2.4	11	2.6
Staffing and Hiring Issues	21	6.1	11	3.1	10	4.0	8	1.9
Tax Breaks	3	0.9	6	1.7	2	0.8	4	0.9
Other	19	5.5	16	4.6	17	6.8	12	2.8
Not Sure	35	10.2	23	6.6	32	12.9	38	8.8
TOTAL	344	100.0	250	100.0	249	100.0	430	100.0

SURVEY QUESTIONS	Responded in Both Years 2007 Number	2007 Percent	2008 Number	2008 Percent	Responded Only in 2007 Number	Only in 2007 Percent	Responded Only in 2008 Number	Only in 2008 Percent
Type of Restaurant/Bar:								
American	26	7.1%	17	4.7%	8	3.0%	32	7.1%
Bar	55	15.0	54	14.9	36	13.5	49	10.9
Chinese	5	1.4	3	0.8	6	2.3	13	2.9
Coffee Shop	11	3.0	6	1.7	10	3.8	38	8.5
Family Restaurant	37	10.1	54	14.9	19	7.1	34	7.6
Fast Food	7	1.9	12	3.3	9	3.4	28	6.2
Golf Course	8	2.2	8	2.2	4	1.5	4	0.9
Greek	4	1.1	3	0.8	3	1.1	4	0.9
Hotel	9	2.5	13	3.6	6	2.3	3	0.7
Italian	17	4.6	12	3.3	14	5.3	18	4.0
Mexican	37	10.1	21	5.8	33	12.4	28	6.2
Pizzeria	40	10.9	32	8.8	23	8.7	38	8.5
Private Club	8	2.2	3	0.8	5	1.9	1	0.2
Sandwich/ Deli	3	0.8	2	0.6	8	3.0	33	7.4
Steakhouse	35	9.5	24	6.6	29	10.9	26	5.8
Other Restaurants	40	10.9	71	19.6	31	11.7	64	14.3
Other Establishments	25	6.8	27	7.5	22	8.3	36	8.9
TOTAL	367	100.0	362	100.0	266	100.0	449	100.0
Capacity:								
Up to 30 seats	9	2.5	9	2.6	8	3.1	62	16.8
31-75 seats	59	16.4	57	16.3	65	25.1	92	21.9
76-100 seats	60	16.7	60	17.1	45	17.4	68	16.2
101-200 seats	113	31.4	109	31.1	72	27.8	116	27.6
201-300 seats	76	21.1	76	21.7	47	18.2	52	12.4
301-1000 seats	38	10.6	37	10.6	19	7.3	28	6.7
Over 1000 seats	5	1.4	2	0.6	3	1.2	2	0.5
TOTAL	360	100.0	350	100.0	259	100.0	420	100.0
Outside Seating:								
Yes	201	55.1	216	60.2	143	54.6	258	59.2
No	164	44.9	143	39.8	119	45.4	178	40.8
TOTAL	365	100.0	359	100.0	262	100.0	436	100.0
Smoking:								
Inside	60	16.4	10	2.8	31	11.8	2	0.5
Outside	114	31.2	167	46.0	92	35.1	191	43.4
Both	60	16.4	5	1.4	40	15.3	6	1.4
Neither	131	35.9	181	49.9	99	37.8	241	54.8
TOTAL	365	100.0	363	100.0	262	100.0	440	100.0
Ambience:								
Yes	133	35.9	283	77.3	109	39.8	349	77.7
No	238	64.2	83	2.7	165	60.2	100	22.3
TOTAL	371	100.0	366	100.0	274	100.0	449	100.0

8-45

SURVEY QUESTIONS	Responded in Both Years 2007 Number	2007 Percent	2008 Number	2008 Percent	Responded Only in 2007 Number	Only in 2007 Percent	Responded Only in 2008 Number	Only in 2008 Percent
Length of Time in Business:								
1 year or less	41	11.3%	13	3.7%	36	13.5%	29	6.8%
2 years	35	9.7	30	8.5	24	9.0	36	8.4
3 years	29	8.0	28	7.9	22	8.3	34	7.9
4-5 years	37	10.2	42	11.8	26	9.8	51	11.9
6-10 years	74	20.4	80	22.5	55	20.7	112	26.1
11-20 years	74	20.4	74	20.9	50	18.8	97	22.6
21-30 years	30	8.3	38	10.7	32	12.0	32	7.5
More than 30 years	42	11.6	50	14.1	21	7.9	38	8.9
TOTAL	362	100.0	355	100.0	266	100.0	429	100.0
CONSTRUCTED VARIABLES								
Location (County):								
Apache	1	0.3	1	0.3	1	0.4	3	0.7
Cochise	11	3.0	11	3.0	7	2.6	9	2.0
Coconino	21	5.7	21	5.7	10	3.7	19	4.2
Gila	7	1.9	7	1.9	1	0.4	4	0.9
Graham	5	1.4	5	1.4	1	0.4	3	0.7
Greenlee	0	0.0	0	0.0	0	0.0	1	0.2
La Paz	4	1.1	4	1.1	3	1.1	4	0.9
Maricopa	203	54.7	203	54.7	157	57.3	250	54.7
Mohave	12	3.2	12	3.2	7	2.6	15	3.3
Navajo	8	2.2	8	2.2	1	0.4	12	2.6
Pima	59	15.9	59	15.9	59	21.5	86	18.8
Pinal	12	3.2	12	3.2	7	2.6	15	3.3
Santa Cruz	6	1.6	6	1.6	2	0.7	5	1.1
Yavapai	14	3.8	14	3.8	14	5.1	25	5.5
Yuma	8	2.2	8	2.2	4	1.5	6	1.3
TOTAL	371	100.0	371	100.0	274	100.0	457	100.0
Prior Smoking Ban:								
Yes	35	9.4	35	9.4	29	10.6	40	8.8
No	336	90.6	336	90.6	246	89.5	417	91.3
TOTAL	371	100.0	371	100.0	275	100.0	457	100.0
Category:								
Bar	110	30.8	110	30.8	78	30.4	82	18.1
Restaurant with Liquor License	215	60.2	215	60.2	132	51.4	146	32.3
Restaurant without Liquor License	32	9.0	32	9.0	47	18.3	224	49.6
TOTAL	357	100.0	357	100.0	257	100.0	452	100.0

CONSTRUCTED VARIABLES	Responded in Both Years 2007 Number	2007 Percent	2008 Number	2008 Percent	Responded Only in 2007 Number	Responded Only in 2007 Percent	Responded Only in 2008 Number	Responded Only in 2008 Percent
Combined Smoking Policy and Outside Seating:								
Inside Seating Only, Smoking Allowed	58	15.9%	6	1.7%	41	15.7%	4	0.9%
Inside Seating Only, Smoking Not Allowed	105	28.9	137	38.2	78	30.0	174	40.0
Seating Inside and Outside, Smoking Allowed in Both	49	13.5	3	0.8	28	10.7	2	0.5
Seating Inside and Outside, Smoking Only Allowed Outside	98	26.9	121	33.7	85	32.4	137	31.5
Seating Inside and Outside, Smoking Not Allowed	41	11.3	86	24.0	28	10.7	117	26.9
Seating Inside and Outside, Smoking Allowed Inside Only	13	3.6	6	1.7	2	0.8	1	0.2
TOTAL	364	100.0	359	100.0	262	100.0	435	100.0
Bar:								
Inside Seating Only, Smoking Allowed	26	7.4	6	1.7	17	7.0	3	0.7
Inside Seating Only, Smoking Not Allowed	23	6.6	35	10.1	16	6.6	30	7.0
Seating Inside and Outside, Smoking Allowed in Both	24	6.8	3	0.9	17	7.0	1	0.2
Seating Inside and Outside, Smoking Only Allowed Outside	28	8.0	48	13.9	22	9.0	34	7.9
Seating Inside and Outside, Smoking Not Allowed	2	0.6	12	3.5	3	1.2	7	1.6
Seating Inside and Outside, Smoking Allowed Inside Only	5	1.4	3	0.9	0	0.0	0	0.0

CONSTRUCTED VARIABLES	Responded in Both Years 2007 Number	2007 Percent	2008 Number	2008 Percent	Responded Only in 2007 Number	Responded Only in 2007 Percent	Responded Only in 2008 Number	Responded Only in 2008 Percent
Restaurant Serving Liquor:								
Inside Seating Only, Smoking Allowed	28	8.0%	0	0.0%	19	7.8%	1	0.2%
Inside Seating Only, Smoking Not Allowed	58	16.5	79	22.9	37	15.2	53	12.3
Seating Inside and Outside, Smoking Allowed in Both	24	6.8	0	0.0	9	3.7	1	0.2
Seating Inside and Outside, Smoking Only Allowed Outside	59	16.8	64	18.5	39	16.0	46	10.7
Seating Inside and Outside, Smoking Not Allowed	35	10.0	62	18.0	22	9.0	38	8.8
Seating Inside and Outside, Smoking Allowed Inside Only	7	2.0	2	0.6	2	0.8	0	0.0
Restaurant Not Serving Liquor:								
Inside Seating Only, Smoking Allowed	1	0.3	0	0.0	2	0.8	0	0.0
Inside Seating Only, Smoking Not Allowed	20	5.7	17	4.9	21	8.6	91	21.1
Seating Inside and Outside, Smoking Allowed in Both	0	0.0	0	0.0	0	0.0	0	0.0
Seating Inside and Outside, Smoking Only Allowed Outside	8	2.3	5	1.5	16	6.6	53	12.3
Seating Inside and Outside, Smoking Not Allowed	2	0.6	8	2.3	2	0.8	71	16.5
Seating Inside and Outside, Smoking Allowed Inside Only	1	0.3	1	0.3	0	0.0	1	0.2
TOTAL	351	100.0	345	100.0	244	100.0	430	100.0

KANSAS HEALTH CONSUMER COALITION
STRENGTHENING THE VOICE OF KANSANS ON CRITICAL HEALTH CARE ISSUES.
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Testimony Before the Senate Public Health and Welfare Committee

1:30 p.m., January 27, 2009

136-North, Kansas State Capitol

Testimony in Support of SB 25, Statewide Clean Indoor Air

Tracy Russell

Kansas Health Consumer Coalition

Mr. Chair and members of the committee, I am here today to provide testimony in support of SB 25. The Surgeon General has definitively claimed that there is no safe exposure to second hand smoke. With irrefutable evidence that led to this claim, why are we still debating the necessity of a statewide clean indoor air law? One of the primary reasons for continued discussion and disagreement is an assumption, not based on evidence, but on anecdote, that clean indoor air laws hurt businesses. Twenty-four states have preceded Kansas in adopting a comprehensive statewide clean indoor air law. Some have been in place for more than a decade and we have the benefit of the resulting economic impact. Several scientific studies have been conducted and they indicate at a minimum, a neutral economic scenario for business owners, and often indicate higher receipts than before the clean indoor air law went into effect. [1] If we consider the possibility of lost revenues to business owners as a reason to reject clean indoor air, then we must consider the costs of smoking to every Kansan as a reason to adopt clean indoor air.

The following is a synopsis of studies that addresses the economic impact of clean indoor air laws. The Journal of Tobacco Control found that "'All of the best designed studies report no impact or a positive impact of smoke-free restaurant and bar laws on sales or employment."[2] A Harvard study examined the economic impact of clean indoor air in Massachusetts. The study found similar results to the one listed above and also looked at the impact of clean indoor air on hospitality workers. The evidence found that employment did not decrease as a result of the clean indoor air law.[3] It is important to note that health scholars are not the only experts examining this issue. There are several studies conducted by economic experts that led to similar conclusions. The University of Kentucky found that there was a slight increase in employment in the hospitality industry ten months after enactment of a

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[1] Surgeon General's Report (2006), *The Health Consequences of Involuntary Exposure to Tobacco Smoke*.

[2] Scollo, M., et al. *Review of the Quality of Studies on the Economic Effects of Smoke-Free Policies on the Hospitality Industry* (2003); 12:13-20.

[3] Connolly, G., et al. (2005) *Evaluation of the Massachusetts Smoke-Free Workplace Law: A Preliminary Report*; Division of Public Health Practice, Harvard School of Public Health.

a clean indoor air ordinance. Researchers also determined that the clean indoor air law did not impact business openings or closures. This study was a joint effort between the University of Kentucky College of Nursing and the Gatton College of Business and Economics.[1] Research conducted by the University of Florida's Bureau of Economic and Business Research also recorded an increase in receipts at restaurants by 7.37% after enacting a clean indoor air law.[2]

Perhaps just as important as the research is the actions of many chambers of commerce around the country that demonstrates the fear of economic downturn may not be warranted. Several chambers support clean indoor air, including members of the restaurant and bar owner community. In Manchester, New Hampshire, seventy-five percent of restaurant and bar owner members supported a state clean indoor air law.[3]

While there seems to be little evidence to support claims of an adverse financial impact resulting from clean indoor air laws, there is substantial proof of the costs to Kansas taxpayers resulting from smoking. Within the Medicaid program alone, Kansas taxpayers are footing $196 million annually to pay for smoking-related illnesses. The total cost to Kansas taxpayers resulting from smoking-related illnesses is approximately $927 million annually. [4] The economic argument that should be considered in this debate is the cost of smoking to Kansas taxpayers and the beneficial impact that clean indoor air might have in reducing those costs.

Thank you for your consideration of this important issue.

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[1] Hahn, E et al.,(2005)*Economic Impact of Lexington's Smoke-Free Law: A Progress Report,* University of Kentucky College of Nursing and Gatton College of Business and Economics.

[2] Dai, C. et al.,(2004) *The Economic Impact of Florida's Smoke-Free Workplace Law*, Bureau of Economic and Business Research, Warrington College of Business Administration, University of Florida.

[3] Williams, Chris, Vice-President of the Greater Manchester Chamber of Commerce, Chamber Insight (2006).

[4] Kansas Department of Health and Environment. (2007) *Tobacco Use in Kansas Status Report.*

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January 27, 2008

TO: Senate Committee on Public Health & Welfare

FROM: Cathy Porter, Volunteer for American Heart Association

RE: SB 25—Clean Indoor Air

Mr. Chairman and members of the committee:

Thank you for allowing me to speak on this most important issue of a law for clean indoor air. My name is Cathy Porter and I am a volunteer for the American Heart Association. I am a heart survivor. My story began almost 11 years ago when I suffered a massive heart attack the day before my 45th birthday. My only risk factor was smoking; women who smoke will have a heart attack 20 years early than those who don't smoke. Smoking weakens the lining of your arteries and causes the soft plaque to become unstable, many times resulting in a heart attack. That is how it happened to me. Over the next five years my heart began to change shape and I had to undergo open heart surgery, where an aneurysm was removed from the left ventricle. Because of the damage caused by my heart attack, the pumping function of my heart is only half of what it should be and I suffer from an electrical condition, known as ventricular tachycardia, which can cause sudden cardiac arrest.

We always hear of these stories but never think it will happen to me. I never thought it would happen to me, a 45 year old woman, but it did. I stand before your today not only to tell you about my story, but the health benefits of reduced exposure to secondhand smoke in all public areas: to the vulnerable populations, the scientific proof, the studies exist indicating before and after proof of clean indoor air health benefits in countries and communities, and to ask your support for SB 25.

Cigarette smoke not only harms the smokers, but vulnerable populations that are subjected to secondhand smoke:

- *especially* **employees in establishments that allow smoking**, (do you know their risk of lung cancer triples; and increases your risk of heart attack up to 50%; and for women the risk of heart attack is 91% higher for women regularly exposed to secondhand smoke……AND,
- *especially* **children** who each year develop asthma, lower respiratory tract infections and other breathing difficulties, and with low birthweight in babies, due to secondhand smoke contributing to infant mortality and health complications into adulthood, i.e., leukemia, thyroid damage for both the mother's and the baby's thyroid function, …..AND
- *especially* **minorities** who are less likely to be covered by smoke-free policies due in part because they comprise a larger percentage of blue-collar and service industry jobs….AND
- *especially* **youth and young adults** who work in an environment where only 28% have the benefits of a smoke-free workplace.

The American Heart Association considers this issue one of public health, and find it inexcusable that workers in restaurants, bars and other facilities are forced to inhale secondhand smoke in order to earn a living. It is

Public Health and Welfare
Date: 01/27/09
Attachment: 10

clear there are significant dangers associated with exposure to secondhand smoke. We have been given the second study by the Surgeon General again affirming that scientific conclusion. There is no debate. **There are no safe levels of second hand smoke.** Even the most expensive ventilation systems only remove the odor, and cannot eliminate the carcinogens in secondhand smoke that still lingering in the air.

At least six published studies exist indicating before and after proof of clean indoor air health benefits in countries and communities.

- **Pueblo, CO**— A smoking ban caused heart attacks to drop by more than 40 percent in one U.S. city and the decrease lasted three years. Pueblo, Colorado, passed a municipal law making workplaces and public places smoke-free in 2003 and U.S. Centers for Disease Control and Prevention officials tracked hospitalizations for heart attacks afterward. They found there were 399 hospital admissions for heart attacks in Pueblo in the 18 months before the ban and 237 heart attack hospitalizations in the next year and a half -- a **decline of 41 percent**. The effect lasted three years, the team reported in the CDC's weekly report on death and disease.

- **Helena, MT**—The Pueblo results mirror and expand upon those of a shorter study involving a non-smoking ordinance in the smaller community of Helena, Montana in 2003. There, **heart attacks fell 40 percent** in the six months the ordinance was in effect, but returned to previous levels after a legal challenge suspended the ordinance.

- **England**—06/14/2008. The number of heart attacks has fallen dramatically since the ban on smoking in public places was introduced last year, latest figures reveal. More than half of hospital trusts in England are treating fewer heart attacks since the ban came on July 1 last year. Nearly six in ten NHS trusts are reporting a fall in the number of heart attack patients being admitted to emergency wards. There were 1,384 fewer heart attacks across the county in the nine months after the legislation was introduced compared with the same period a year earlier. That translates to a three percent fall across the country since the ban. Some hospitals have seen the **number of cases fall by 41 per cent since July 2007**.

- **Scotland—June 23, 2008.** Dr David Batty, of the Medical Research Council Social and Public Health Sciences Unit, based at the University of Glasgow, said: "What this study shows is that smoking is linked to more kinds of cancer than previously thought. It's important to remember that cancer is not a single disease and that the various kinds of cancers are different illnesses so you couldn't necessarily assume that smoking was linked to them in the same way. What's unclear is how exactly smoking causes these cancers." Health Minister Shona Robison said: "This study appears to demonstrate that smoking is even more carcinogenic than was realized. It also underlines the importance of Scotland's smoking ban in public places, which is helping to safeguard the health of thousands of people working in previously smoky environments." Sheila Duffy, chief executive of Action on Smoking and Health Scotland, said: "This large-scale study adds to the weight of existing research confirming the harmfulness of smoking. It's vital that smokers receive support and encouragement to quit and as a nation we take steps to ensure future generations avoid getting hooked on this lethal and highly addictive substance." Ed Yong, health information manager at Cancer Research UK, said: "The dangers of cigarette smoke go far beyond its well-known link to lung cancer. It's interesting to see that even after 50 years of research, studies are still revealing new dangers."

- **Italy**—February 11, 2008. Italy's 2005 smoking ban has led to a sharp fall in heart attacks, researchers re-

ported on Monday in a finding they said shows that such laws really do improve public health. Following the ban the number of heart attacks in men and women aged 35-64 -- people most likely to be exposed to smoke in cafes, bars and restaurants -- **fell 11 percent**, the researchers said. The findings showed the health benefits of European smoking bans in public places, said Francesco Forastiere, an epidemiologist at the Rome Health Authority who led the study. "Most of this change is due to the decreased impact of passive smoke," he said in a telephone interview. "This is ... important because it shows the impact of a health intervention that can be achieved in other countries." Italy, Britain, Ireland and a number of other European countries have outlawed smoking in public places, and many health experts are urging the European Union to adopt an even wider ban. The ban in Italy, where the researchers said about 30 percent of men and 20 percent of women smoke, prohibited smoking cigarettes in all indoor public places such as offices, retail shops, restaurants, pubs and discos.

- **France**—February 24, 2008. The incidence of smoking-related diseases has sharply decreased after France enacted tough anti-smoking laws, the Health Ministry said in a report released Saturday. According to the report, the incidence of myocardial infarction and cerebrovascular diseases dropped by 15 percent in recent two months. It will be further proved in the next two months that anti-smoking laws will bring significant and instant benefits to the health of the French people, said the report. French has banned smoking in companies, government offices and shopping centers since Feb.1, 2007. From the beginning of this year, smoking are banned in all public places across France, including bars, cafes, restaurants and discotheques.

- **Kansas**—The Kansas Department of Health and environment took Pueblo's result to develop a scenario that could occur in Kansas based on our health statistics. KDHE reports that if Kansas experienced similar results to Pueblo, there would be 2,160 fewer heart attacks and $21 million less spend on the related health care costs for public and private hospitals annually.

The American Heart Association continues to support smoke-free policies that provide for 100% smoke free public places, including restaurants and bars… free of exemptions for separately ventilated rooms, size or hours of operation exemptions, exemptions for bars or private clubs or recreational establishments, and opt-out provisions. We want to make Kansas to make a healthier place for all its citizens.

Elected leaders must continue to move toward a 100 percent smoke-free nation and help reduce death and disability from cardiovascular diseases and other diseases. When we come together in public, all things being equal, the least that should be expected of all of us is to do no harm to one another. I urge you to pass SB 25 favorably for passage. Thank you.

5375 SW 7th St. ~ Topeka, KS 66606 785-228-3437 785-272-3435 linda.decoursey@heart.org

Smoking when pregnant affects thyroid for both the mother and baby

Tue Jan 13, 2009 3:28pm EST

WASHINGTON (Reuters) - Here's another thing that smoking while pregnant can do -- it can damage both the mother's and the baby's thyroid function, British researchers reported on Tuesday.

Cigarette smoke has been shown to cause babies to be born smaller, to make newborns more likely to die of sudden infant death syndrome, and even to affect the rates of cleft lips, heart defects and other problems.

Bijay Vaidya of Royal Devon and Exeter Hospital and colleagues found smoking can also affect the thyroids of both mothers and babies.

"We studied the influence of cigarette smoking on thyroid function of two groups of women at different stages of pregnancy -- one in the first trimester and the other in the third trimester," Vaidya said in a statement.

"In both groups we found that smoking during pregnancy is associated with changes in the mothers' thyroid hormone levels."

Good thyroid function is key to maintaining a pregnancy, and some pregnant women suffer from thyroid imbalances. This, in turn, affects metabolism and the risk of miscarriage, premature birth, low birth weight and impaired brain development.

Writing in the Journal of Clinical Endocrinology & Metabolism, Vaidya and colleagues said they measured thyroid hormone levels in the umbilical cords of babies born to smoking mothers and found that smoking-related changes in thyroid function also affected the newborn.

But among women who quit while pregnant, thyroid hormone levels were comparable to levels found in nonsmokers, which Vaidya said suggests the thyroid changes can quickly clear up.

(Reporting by Maggie Fox, editing by Philip Barbara)

Smoking ban lowers heart attacks in one U.S. city

Fri Jan 2, 2009 5:17am EST

WASHINGTON (Reuters) - A smoking ban caused heart attacks to drop by more than 40 percent in one U.S. city and the decrease lasted three years, federal health experts reported Wednesday.

Pueblo, Colorado, passed a municipal law making workplaces and public places smoke-free in 2003 and U.S. Centers for Disease Control and Prevention officials tracked hospitalizations for heart attacks afterward.

They found there were 399 hospital admissions for heart attacks in Pueblo in the 18 months before the ban and 237 heart attack hospitalizations in the next year and a half -- a decline of 41 percent.

The effect lasted three years, the team reported in the CDC's weekly report on death and disease.

"We know that exposure to second-hand smoke has immediate harmful effects on people's cardiovascular systems, and that prolonged exposure to it can cause heart disease in nonsmoking adults," said Janet Collins, director of CDC's National Center for Chronic Disease Prevention and Health Promotion.

"This study adds to existing evidence that smoke-free policies can dramatically reduce illness and death from heart disease."

Long-term exposure to secondhand smoke can raise heart disease rates in adult nonsmokers by 25 percent to 30 percent, the CDC says.

Secondhand smoke kills an estimated 46,000 Americans every year from heart disease alone. Smoking also causes a variety of cancers, as well as stroke and emphysema or chronic obstructive pulmonary disease.

(Reporting by Maggie Fox; Editing by Bill Trott)

Smoking bans reduce heart attack admissions

Bans on smoking substantially reduce hospital admissions for heart attacks, research has shown.

On the first anniversary of the ban on public smoking in England, a report shows that smoke-free laws worldwide reduce admissions by almost one fifth (*Preventive Medicine* 2008 Jun 18; doi: 10.1016/j.ypmed.2008.06.007).

This meta-analysis of published studies shows that the effects were immediate. "The fact that many studies from so many locations around the world provide consistent findings of a substantial drop in acute myocardial infarction associated with the implementation of smoke-free laws increases the confidence that . . . smoke-free policies have immediate and substantial benefits in terms of reducing acute myocardial infarctions," says the author, Stanton Glantz, professor of medicine at the University of California.

The analysis is based on eight studies published since 2004, when the first report of such a drop was reported for the town of Helena, Montana.

The results of the analysis show a pooled estimate of an immediate 19% (95% confidence interval 14% to 24%) reduction to admission rates associated with the laws.

The report says that the fact that the studies from Italy and Ireland showed smaller drops in admissions than in US locations may reflect lower levels of compliance with the law. It says that in Italy and Ireland implementation of the law was associated with a reduction in levels of secondhand smoke exposure of 64% and 69%, compared with an 84% reduction in the United States.

The analysis does not include two studies for which confidence intervals are not available—a small study of Monroe County, Indiana, which found a significant drop in admissions, and a study of Scotland presented at a conference, which reported a 17% drop but which has not yet been published.

The smoke-free law in England, introduced on 1 July last year to make virtually all enclosed public places and workplaces smokefree, has helped record numbers of smokers to quit and will help prevent an estimated 40 000 deaths in the next 10 years, according to the smoking toolkit study, funded by Cancer Research UK, McNeil, Pfizer, and GlaxoSmithKline, and presented at the UK National Smoking Cessation Conference this week.

The decline in smoking prevalence for the nine months before the ban was 1.6% compared with 5.5% in the nine months after. Based on these findings, the researchers estimate that at least 400 000 people quit smoking as a result of the ban.

Robert West, Cancer Research UK's director of tobacco studies at the health behaviour research centre at University College London, who carried out the study, said, "These figures show the largest fall in the number of smokers on record. I never expected such a dramatic impact and of course there are no guarantees that smoking rates will not climb back up again."

The study was based on interviews with more than 32 000 people in England over the nine months before and nine months after the law took effect.

Cite this as: *BMJ* 2008;337:a597
See www.uknscc.org and www.cancerresearchuk.org.uk.

http://www.bmj.com/cgi/content/full/337/jun30_1/a597

Meta-analysis of the effects of smokefree laws on acute myocardial infarction: An update

Preventive Medicine
Article in Press, Accepted Manuscript

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Received 5 June 2008; accepted 11 June 2008. Available online 18 June 2008.

There have been 8 published studies (Sargent, Shepard and Glantz 2004; Barone-Adesi et al. 2006; Bartecchi et al. 2006; Cronin et al. 2007; Juster et al. 2007; Khuder et al. 2007; Cesaroni et al. 2008; Lemstra, Neudorf and Opondo 2008) evaluating the immediate effects of smokefree policies on hospital admissions for acute myocardial infarction since the first report of such a drop in Helena, Montana (Sargent, Shepard and Glantz 2004). This brief report updates an earlier meta-analysis of the first four studies (Dinno and Glantz 2007).

Pooling all the available estimates of this effect using the Stata 9.2 metan procedure in a random effects meta-analysis yields a pooled estimate of an immediate 19% (95% CI 14% to 24%) reduction on AMI admission rates associated with these laws...

The fact that many studies from so many locations around the world provide consistent findings of a substantial drop in AMI's associated with the implementation of smokefree laws increases the confidence that we can have that smokefree policies have immediate an substantial benefits in terms of reducing acute myocardial infarctions.

http://www.sciencedirect.com/science/journal/00917435

Smoking's hidden death toll revealed - Scotland On Sunday
June 23, 2008

Murdo MacLeod
[Photo cutline]: Scots scientists have identified one million more cancer fatalities caused by cigarettes
Smoking causes hundreds of thousands more deaths each year than previously thought, dramatic scientific research has revealed.

A study, led by experts in Glasgow, showed heightened chances of dying from cancers of the colon, rectum and prostate, as well as from lymphatic leukaemia.

These illnesses cause 930,000 deaths worldwide each year, in addition to more than five million smoking-related deaths estimated by the World Health Organisation as being caused by diseases such as lung cancer, which have long been linked to smoking.

Scotland's health minister and anti-smoking campaigners have welcomed the study as further proof of the need to clamp down on the habit.

About 13,000 Scots a year die of lung cancer and other smoking-related diseases, such heart illnesses. Another 1,600 people die in Scotland each year from the cancers newly linked to the habit.

The Scottish Government last month unveiled controversial new plans to curb smoking, by proposing a ban on cigarettes being displayed in shops. And ministers south of the border have suggested scrapping packs of 10 cigarettes because of their popularity among young smokers.

The new study, which has been published in the journal Annals of Oncology, was carried out by a team led by experts at Glasgow University and was based on data from 17,363 male civil servants based in London.

Information about their health and habits has been collated since the 1960s in an effort to gain information about health trends and find links between lifestyle and illness. The original link between smoking and lung cancer was found through similar analysis of medical data.

The study found:

- A 43% increase in the chances of dying from cancer of the colon if the person smokes.

- A 40% higher likelihood of dying from rectal cancer.

- An increase of 23% in the chances of losing one's life to prostate cancer.

- A 53% rise in mortality from lymphatic leukaemia among smokers.

The study concluded: "Cigarette smoking appears to be a risk factor for several malignancies of previously unclear association with tobacco use."

Dr David Batty, of the Medical Research Council Social and Public Health Sciences Unit, based at the University of Glasgow, said: "What this study shows is that smoking is linked to more kinds of cancer than previously thought. It's important to remember that cancer is not a single disease and that the various kinds of cancers are different illnesses so you couldn't necessarily assume that smoking was linked to them in the same way. What's unclear is how exactly smoking causes these cancers."

Health Minister Shona Robison said: "This study appears to demonstrate that smoking is even more carcinogenic than was realised.

It also underlines the importance of Scotland's smoking ban in public places, which is helping to safeguard the health of thousands of people working in previously smoky environments."

Sheila Duffy, chief executive of Action on Smoking and Health Scotland, said: "This large-scale study adds to the weight of existing research confirming the harmfulness of smoking. It's vital that smokers receive support and encouragement to quit and as a nation we take steps to ensure future generations avoid getting hooked on this lethal and highly addictive substance."

Ed Yong, health information manager at Cancer Research UK, said: "The dangers of cigarette smoke go far beyond its well-known link to lung cancer. It's interesting to see that even after 50 years of research, studies are still revealing new dangers."

However, one leading medical experts questioned the conclusions.

Fouad Habib, professor of experimental urology at Edinburgh University, and an expert in prostate cancer, said: "This study is bit of a surprise and very much the first of its kind. Until now it's not been thought that there was any link between smoking and prostate cancer and I would have thought that there are factors which play a much greater role, such as genetics."

Meanwhile, smokers' groups insisted the research should not be used to push through tougher anti-smoking rules.

Neil Rafferty, spokesman for the smokers' lobby group the Freedom Organisation for the Right to Enjoy Smoking Tobacco, said: "We are not suggesting the smoking is anything other than bad for you. People enjoy it, but they know that it's not good for them and they take the choice. No doubt the anti-smoking lobby will want to use this to erode our freedoms still further. At the end of the day, we are adults. Let us get on with our lives."

Source:

Cigarette smoking and site-specific cancer mortality: testing uncertain associations using extended follow-up of the original Whitehall study

Ann Oncol. 2008 Jan 22 [Epub ahead of print]

Batty GD, Kivimaki M, Gray L, Smith GD, Marmot MG, Shipley MJ.
Medical Research Council Social and Public Health Sciences Unit, University of Glasgow, Glasgow.

Fall in heart attack numbers after smoking ban
By Patrick Sawer
Last updated: 8:49 AM BST 14/06/2008
The number of heart attacks has fallen dramatically since the ban on smoking in public places was introduced last year, latest figures reveal.

More than half of of hospital trusts in England are treating fewer heart attacks since the ban came on July 1 last year.

Nearly six in ten NHS trusts are reporting a fall in the number of heart attack patients being admitted to emergency wards.

There were 1,384 fewer heart attacks across the county in the nine months after the legislation was introduced compared with the same period a year earlier. That translates to a three per cent fall across the country since the ban.

Some hospitals have seen the number of cases fall by 41 per cent since July 2007.

The figures, obtained under the Freedom of Information Act, are the first available proof that the smoking ban has had a significant impact on health across England.

Coronary heart disease costs the country £3.5billion a year, but the Government has yet to publish official statistics about the effects of the ban.

Amanda Sandford, of the pressure group Action on Smoking and Health, said: "This is excellent news.

"It seems likely that the drop in hospital admissions for heart attacks is linked to the implementation of the smoking ban. It shows just how quickly the benefits can be felt.

"Even if the overall percentage reduction appears small, the fact that this amounts to over a thousand people whose lives have been saved is extremely important. Any single life saved is worth celebrating."

The figures follow similar research in Scotland and Ireland that showed hospital admissions for heart attacks fell by 17 and 14 per cent respectively, in the year after the ban came in there during 2006.

Studies in France and Italy have also drawn a link between the introduction of smoking restrictions and a drop in heart attack rates.

Dr Nicholas Boon, president of the British Cardiovascular Society, said: "This is great news. It is exactly what we hoped and expected to see.

"When you place these figures with the research in Scotland, Ireland, France and Rome, it is consistent with the observation that the ban has been followed by significant improvements in heart attack rates. It is early days, but the benefits may be greater in the long run."

Experts believe the ban has triggered a drop in heart attacks due to both the number of people quitting and the reduction in passive smoking as fewer people are exposed to airborne toxins.

The research examined admissions for heart attacks at 114 trusts, of which 66 saw a drop in admissions between July 2007 and March 2008 compared with 12 months earlier.

In the remaining 48 trusts, admission rates stayed the same or increased marginally.

In total, there were 42,176 admissions to all the trusts from October 2006 to June 2007. But in the nine months after the ban, that number fell by 1,384, or three per cent.

Shrewsbury and Telford Hospitals NHS Trust saw the most dramatic drop in heart attack admissions, with a fall of 41 per cent - 418 fewer.

A substantial reduction in the number of heart attack patients would save the NHS a fortune as it costs up to £5,000 to treat an emergency heart attack patient.

It is estimated that smokers have almost twice the risk of a heart attack compared with those who have never smoked. A year after a person quits, the risk of a heart attack falls to half of that of a smoker.

Around ten million British adults smoke - about a quarter of the population - and there are 230,000 heart attacks each year causing around 100,000 deaths. Of these, 123,000 take place in adults aged under 75.

Research shows people in this group stand to gain more benefits from a smoking ban as they suffer greater exposure to smoke.

Dr Mike Knapton, of the British Heart Foundation, said: "This is very significant. I think we can say that this indicates the smoking ban has had a beneficial effect on the rate of heart attacks quicker than many people predicted.

"This shows that the ban was the most significant public health initiative this century. These figures are also fantastically encouraging if you want to give up smoking. It suggests the benefits of stopping smoking are realised faster than you think."

The Department of Health said: "It is obviously good news. However it is too early to attribute this to the smoke-free legislation."

Ninety per cent of pubs, clubs and restaurants have complied with the ban with many installing special areas outside for smokers.

Story from Telegraph News:
http://www.telegraph.co.uk/news/uknews/2127897/Fall-in-heart-attack-numbers-after-smoking-ban.html

Secondhand Smoke: Damage in Mere Minutes - WebMD
May 2, 2008

Kelli Miller Stacy

Just 30 Minutes of Secondhand Smoke Damages the Blood Vessels of Healthy Nonsmokers

Just 30 minutes in a smoky room can cause profound blood vessel injury in healthy young adults, greatly increasing the risk of cardiovascular disease, according to a new study published in the May 6 issue of the Journal of the American College of Cardiology.

The findings add to the growing body of evidence that suggests that there is no risk-free level of secondhand smoke. Secondhand smoke, also called environmental tobacco smoke, contains an array of harmful chemicals, including nicotine, which have been shown to increase one's risk for cardiovascular disease. Exposure to such smoke causes upwards of 50,000 heart disease deaths in adult nonsmokers every year in the United States, making it a major public health concern.

Study author Christian Heiss, MD, currently affiliated with the University RWTH Aachen in Germany, and colleagues in California evaluated blood vessel function in healthy, young, nonsmoking adults after they were exposed to a half hour of secondhand smoke at levels commonly found in public smoking areas. The study participants also underwent similar evaluations after exposure to smoke-free air on a different day.

The researchers learned that in healthy nonsmokers, even brief exposure to secondhand smoke resulted in blood vessel dysfunction and interfered with the activity of endothelial progenitor cells (EPCs), which are believed to play a key role in repairing blood vessels. The damage to the EPCs appeared to last as long as a day.

"Taken together, these findings provide further evidence that even a very short period of passive smoke exposure has strong, persistent vascular consequences," the scientists write in the journal article.

Heiss' team is the first to describe the effect of secondhand smoke on EPCs in humans.

A decrease in the number and function of EPCs has been linked to cardiovascular risk factors, including chronic smoking, high blood pressure, and high cholesterol.

"These findings have significant public health implications and should raise further awareness of the negative side effects of even brief exposures to secondhand smoke," Heiss tells WebMD. "Our results help explain why there is a big immediate drop in heart attacks when smoke-free laws are passed."

In a related editorial, David S. Celermajer, MD, a cardiologist with the Royal Prince Alfred Hospital in Sydney, Australia, writes that Heiss' current findings regarding the adverse effect of secondhand smoke on EPC activity, and not just their number, are worthy of much further investigation, adding that the team has shown that "where's there's smoke, there is indeed fire."

Source:

Brief Secondhand Smoke Exposure Depresses Endothelial Progenitor Cells Activity and Endothelial Function: Sustained Vascular Injury and Blunted Nitric Oxide Production Sustained Vascular Injury and Blunted Nitric Oxide Production

J Am Coll Cardiol, 2008; 51:1760-1771

Christian Heiss, MD, Dr Med, Nicolas Amabile, MD, Andrew C. Lee, MD, Wendy May Real, BS, Suzaynn F. Schick, PhD, David Lao, MD, Maelene L. Wong, BS, Sarah Jahn, MB, Franca S. Angeli, MD, Petros Minasi, BA, Matthew L. Springer, PhD, S. Katharine Hammond, PhD, Stanton A. Glantz, PhD, FACC, William Grossman, MD, FACC, John R. Balmes, MD, and Yerem Yeghiazarians, MD, FACC

Prenatal Smoking Can Cause Infant Heart Defect
April 11, 2008

News Summary

Babies born to women who smoke during pregnancy are more likely to have heart defects that are not related to genetics, Reuters reported April 9.

Researcher Sadia Malik of the University of Arkansas for Medical Sciences and colleagues compared more than 3,000 infants born with heart defects to a similar group of infants without heart problems. They found that heart defects were more common among children of women who smoked during the month before they became pregnant or during the first trimester of their pregnancy. Moreover, the risk of babies being born with heart problems was higher when mothers smoked more.

"If even a fraction of congenital heart defects and other birth defects could be prevented by decreasing maternal tobacco use, it would result in improved reproductive outcomes and a saving of millions of health care dollars," the researchers said.

The study was published in the April 2008 issue of the journal Pediatrics.

Incidence of heart diseases drops after France enacts anti-smoking laws

February 24, 2008

The incidence of smoking-related diseases has sharply decreased after France enacted tough anti-smoking laws, the Health Ministry said in a report released Saturday.

According to the report, the incidence of myocardial infarction and cerebrovascular diseases dropped by 15 percent in recent two months.

It will be further proved in the next two months that anti-smoking laws will bring significant and instant benefits to the health of the French people, said the report.

French has banned smoking in companies, government offices and shopping centers since Feb.1, 2007. From the beginning of this year, smoking are banned in all public places across France, including bars, cafes, restaurants and discotheques.

The French government has said the measures, widely supported by the public, are aimed at cutting the number of annual deaths caused by smoking, the leading cause of preventable deaths in the country.

Heart attacks drop after Italy's smoking ban: study
By Michael Kahn*Mon Feb 11, 5:34 PM ET*

Italy's 2005 smoking ban has led to a sharp fall in heart attacks, researchers reported on Monday in a finding they said shows that such laws really do improve public health.

Following the ban the number of heart attacks in men and women aged 35-64 -- people most likely to be exposed to smoke in cafes, bars and restaurants -- fell 11 percent, the researchers said.

The findings showed the health benefits of European smoking bans in public places, said Francesco Forastiere, an epidemiologist at the Rome Health Authority who led the study.

"Most of this change is due to the decreased impact of passive smoke," he said in a telephone interview. "This is ... important because it shows the impact of a health intervention that can be achieved in other countries."

Italy, Britain, Ireland and a number of other European countries have outlawed smoking in public places, and many health experts are urging the European Union to adopt an even wider ban.

The ban in Italy, where the researchers said about 30 percent of men and 20 percent of women smoke, prohibited smoking cigarettes in all indoor public places such as offices, retail shops, restaurants, pubs and discos.

STRONGLY ENFORCED

"Smoking bans should be extended to all possible countries and smoking bans in the workplace should be strongly enforced," the researchers wrote.

Writing in the American Heart Association journal Circulation, the researchers compared the rate of heart attacks from 2000 to 2004 to those occurring in the year after the ban was enforced.

The team analyzed hospital records and adjusted for heat waves, flu epidemics, air pollution and other factors that could have contributed to heart attacks. The researchers also took daily measurements on air quality in 40 public places.

"The smoking ban in Italy is working and having a real protective effect on population health," Forastiere said.

After the ban, cigarette sales also fell 5.5 percent but the researchers attributed the health benefits seen in the study to reduced exposure to passive smoke.

They said young men and women living in poorer areas appeared to have the greatest health benefit after the ban.

Smoking kills about four million people each year while about a quarter of deaths related to heart disease are due to cigarettes, according to the World Health Organization.

(Reporting by Michael Kahn, Editing by Maggie Fox)

FOR RELEASE:
4 p.m. EDT, Monday

American Heart Association.
Learn and Live.

Sept. 25, 2006

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American Heart Association rapid access journal report:

Anti-smoking ordinance may help prevent heart attacks

DALLAS, Sept. 26 – After a Colorado city banned smoking in workplaces and public buildings, the number of people suffering heart attacks in the area swiftly and dramatically decreased, according to a study in *Circulation: Journal of the American Heart Association*.

"Adopting a non-smoking ordinance has the potential to rapidly improve the cardiovascular health of a community," said lead author Carl Bartecchi, M.D., distinguished clinical professor of medicine at the University of Colorado School of Medicine in Denver.

The study evaluated the impact of a 2003 ordinance in the 103,648-person, blue-collar city of Pueblo, Colorado. Pueblo, located in southern Colorado, has a higher percentage of smokers than the statewide average (22.6 percent vs. 18.6 percent).

The strict ordinance forbids smoking in indoor workplaces and all public buildings, including restaurants, bars, shops and recreational facilities such as bowling alleys. Both smokers and facility owners receive stiff fines for violations.

Researchers compared admissions at Pueblo's two hospitals from 1.5 years before and 1.5 years after the ordinance took effect. Both hospitals provide care for all recognized heart attacks in Pueblo and the surrounding county.

In the 18 months after the ordinance took effect, admissions for heart attacks for Pueblo City residents dropped 27 percent from the 18-month period before the ordinance. In the same period, heart attack hospitalizations did not change significantly for residents of surrounding Pueblo County or in the comparison city of Colorado Springs, neither of which have non-smoking ordinances.

After the ordinance went into effect, heart attack rates fell by:

- 70 per 100,000 person-years in Pueblo City;
- 20 per 100,00 person-years in Pueblo County outside the city; and
- 3 per 100,000 person-years in El Paso County (Colorado Springs).

10-15

"You can save lives with drugs and expensive, sophisticated devices, but this single community action led to 108 fewer heart attacks in an 18-month period," Bartecchi said.

"Each hospital admission for a heart attack costs an average of $20,000 here in Pueblo, so in addition to saving lives, non-smoking ordinances also save a lot of money," he added.

The researchers also analyzed the possible effects of seasonality and found that these seasonal differences had no effects on the significant lowering following the non-smoking ordinance. The researchers also stated that other potential confounding factors such as air pollution and community-wide changes on cardiovascular disease preventive care did not have any significant impact on their findings in their paper.

"The development of atherosclerosis that leads to a heart attack usually takes 20 years. The decline in the number of heart attack hospitalizations within the first year and a half after the non-smoking ban that was observe in this study is most likely due to a decrease in the effect of secondhand smoke as a triggering factor for heart attacks. The ordinance will likely continue to decrease the number of heart attacks and save lives every year," said American Heart Association President Raymond J. Gibbons, M.D.

According to the association, more than 35,000 nonsmokers die each year in the United States from coronary heart disease due to exposure to secondhand smoke. A recent Surgeon General's report also confirms that secondhand smoke is a major risk factor for coronary heart disease and there is no safe level of exposure to secondhand smoke.

According to the authors, other studies have shown that the coronary blood vessels are very sensitive to secondhand smoke. Within only minutes or hours of exposure:

- the lining of blood vessels malfunction, making the vessels less able to expand when needed.
- platelets in the blood become activated, stickier and more likely to form clots.

"These changes can lead to a heart attack," Bartecchi said.

In addition to clearing the indoor air and reducing heart attack risk for nonsmokers, non-smoking ordinances encourage current smokers to quit or cut back. Ten years after smoke-free workplace legislation in California, for example, 90 percent of citizens approve of the law and most smokers who quit credit the law for helping.

The Pueblo results mirror and expand upon those of a shorter study involving a nonsmoking ordinance in the smaller community of Helena, Montana. There, heart attacks fell 40 percent in the six months the ordinance was in effect, but returned to previous levels after a legal challenge suspended the ordinance. However, that study was not able to control for a number of factors considered in the present study.

"After the Helena study, the Centers for Disease Control recommended that people at risk of coronary heart disease avoid secondhand smoke," Bartecchi said. "This study should strengthen that recommendation. The Pueblo experience adds to mounting evidence that smoke-free indoor air laws are common-sense public health measures that save lives. These results should also encourage other municipalities to pass smoke-free ordinances."

The study was partially funded by the Colorado Department of Public Health and Environment (CDPHE).

Co-authors are Robert N. Alsever, M.D.; Christine Nevin-Woods, D.O., M.P.H.; William M. Thomas, Ph.D.; Raymond O. Estacio, M.D.; Becki Bucher Bartelson, Ph.D.; and Mori J. Krantz, M.D.

Editor's Note: For more information on smoking and cardiovascular disease, visit americanheart.org.

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JACE SMITH

1208 N. 132ND ST.
KANSAS CITY, KS

Testimony presented to the Senate Committee on Public Health & Welfare
SB 25—Clean Indoor Air
January 27, 2009

Good afternoon Senators of the Ways & Means Committee, and thank you for hearing my testimony. My name is Jace Smith, and I'm speaking before you as a concerned citizen of Kansas City, KS. I would like to share with you my story, and why I want to see our state pass a strong clean indoor air law, without exemptions, for all places of employment.

While attending Emporia State University, like many students, I had to work to cover my college tuition and expenses. After applying at several places, I was able to find employment with a local bar. My schedule varied, but usually I worked 3 nights a week.

After working there for two months, I noticed a change in my health. When I would come home from working a shift, my eyes would be blood shot, and my clothes would smell like smoke. From the beginning, I knew I was working in an unhealthy environment, but really I didn't care, because I was making money, and was thankful to have a job. Then one night after work, as I was getting ready for bed, I suddenly had trouble breathing. My throat was felt tight, and I began to wheeze. I couldn't catch my breath. After a trip to the emergency room, I found out that I had suffered an asthma attack.

There is no cure for adult asthma. I take medication to control my symptoms, and try my best to avoid any possible triggers, like secondhand smoke. I'm here today to speak up for restaurant and bar workers who have to make a living in these toxic environments. No worker should have to risk their health in order to earn a paycheck.

Today, 20 million Americans are living with asthma, and are forced to avoid public places that allow smoking. Think of the increased revenue businesses would see if smoking was prohibited in all public places.

I currently make the 15-20 minute drive to Overland Park, KS, where they have implemented a strong, comprehensive smoke-free law. The County Commission in KCK failed residents like me, and passed a weak ordinance. That's why I'm here today.

As the U.S. Surgeon General concluded when issuing a groundbreaking report in June 2006, "The debate is over. The science is clear: Secondhand smoke is not a mere annoyance, but a serious health hazard that causes premature death and disease in children and nonsmoking adults."

Secondhand smoke is a health hazard, I'm proof of that. I support Senate Bill 25, and would like your support as well. Thank you for your time.

Jace Smith

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January 27, 2009

The Honorable James A Barnett, Chairman
Senate Health and Public Welfare Committee

Reference – SB 25

Good afternoon Chairman Barnett and members of the Senate Public Health and Welfare Committee. My name is Bob Harvey and I am a member of the AARP National Policy Council (NPC). The NPC is an advisory committee to the AARP Board of Directors and assists the board in formulating national, state and local policy. I am here today representing AARP Kansas. We represent the views of more than 375,000 members in Kansas. AARP's top priority is health care and I am here to offer testimony in support of a very important health issue, SB 25 and creation of a statewide clean indoor act.

Major improvements in the health of Americans are a direct result of public health measures initiated during the 20th century, when the health and life expectancy of people in the US improved dramatically. Since 1900 the average lifespan of people in the US has lengthened by more than 30 years; most of this gain (25 years) is attributable to advances in public health. One of the greatest US public health achievements of the 20th century is the recognition of tobacco use as a health hazard.

According to a Centers for Disease Control and Prevention (CDC) report, about 90 percent of nonsmoking people in the United States are exposed to environmental tobacco smoke (ETS). Environmental tobacco smoke, a human carcinogen (a cancer causing substance), is known as a **"geriatric disease"** because that is when the disease and death caused by tobacco most often occurs.

ETS is a toxic substance responsible for 53,000 deaths annually in U.S. nonsmokers. ETS, or second-hand smoke, is now officially listed as a Group A carcinogen, which is a classification reserved for those compounds, like asbestos and benzene, which have been shown to cause cancer in humans.

Older Americans and children are especially affected by ETS. Of the 53,000 persons who die yearly from ETS, most are older persons who die from heart disease or cancer, including 3,000 to 5,000 due to lung cancer. As early as 1986, the Surgeon General reported that the effects of smoking on nonsmokers are as severe as the direct effects on smokers.

The American Academy of Neurology reported that exposure to secondhand tobacco smoke increased the risk of developing dementia, according to research that was presented at the American Academy of Neurology's 59th Annual Meeting in Boston, April 28-May 5, 2007.

Based on preliminary results, the study authors found that elderly people with high lifetime exposure to secondhand smoke were approximately 30 percent more likely to

develop dementia than those with no lifetime secondhand smoke exposure. The study also found that exposure to secondhand smoke resulted in a greater occurrence of dementia for people who had not been diagnosed with cardiovascular disease but who had detectable abnormalities of their carotid arteries, based on carotid ultrasound imaging, compared to those without these underlying abnormalities.

Tobacco /ETS is also a **"pediatric disease"** because young children are especially at risk**:** secondhand smoke is responsible for between 150,000 and 300,000 lower respiratory tract infections in children under 18 months old, resulting in between 7,500 and 15,000 hospitalizations each year. It also causes between 1,900 and 2,700 Sudden Infant Death Syndrome (SIDS) deaths in the United States each year.

Cancer is not the only concern: According to the National Cancer Institute, more than 4,000 chemicals have been identified in tobacco smoke – and more than 50 are carcinogens and six others interfere with normal cell development. Research shows a connection between secondhand smoke and nasal sinus cancer, and possible a connection between secondhand smoke and cancers of the cervix, breast, and bladder. Non-cancerous health conditions caused by secondhand smoke include chronic coughing and wheezing, chest discomfort, decreased lung function, and severe lower respiratory tract infections such as bronchitis or pneumonia. Women who inhale secondhand smoke may be at risk of preterm labor and delivering a low-birthweight baby.

It only takes five minutes: Most people assume that they must be exposed to secondhand smoke for a long time before it can actually cause harm, but this is not true. According to the Centers for Disease Control, just five minutes of exposure stiffens the aorta as much as smoking a cigarette. Twenty minutes of exposure is equal to smoking a pack a day, for it activates blood platelets involved in the clotting process and increases the risk of heart attack. Thirty minutes of exposure causes stiffened, clogged arteries and compromises the blood's ability to manage LDL ("bad") cholesterol. And two hours of exposure can speed up the heart rate and reduce heart rate variability, increasing the chance of an irregular heart beat (arrhythmia) that can itself be fatal or trigger a heart attack. These health effects can take as long as 48 hours to reverse themselves. All of these effects increase the long-term risk of heart disease and the immediate risk of heart attack. A study from the University of California at San Francisco showed disturbing results as well: After being exposed to 15 cigarettes in a closed room for one hour, even healthy men experienced stiffness of the aortic arteries – some after only four minutes.

Smoking is the number one preventable death and disease in Kansas and the US. Each year tobacco causes over 4000 deaths in Kansas, including 290 attributed to second hand smoke, and generates nearly $930 million in health care costs ($196 million within the Medicaid program alone).

At least 36 states, including neighboring states, and several Kansas communities have imposed restrictions on smoking in public places. A Statewide clean indoor air law would create a level playing field among cities and counties, eliminating the fear that a local ban would put a community at a competitive disadvantage to its neighbor. "The Economic

Impact of Indoor Smoking Bans", October 13, 2004, by Michael H. Fox, Sc.D., Associate Professor, Department of Health Policy and Management, University of Kansas Medical Center summarized that evaluating the existing literature on economic impact of indoor smoking bans lead to the following:

1. Though no studies are without limitations, the overwhelming majority of studies that maintain a rigorous scientific element suggest that the economic impact of a smoking ban is minimal if it exists at all;

2. The leading researchers who appear to argue consistently against smoking bans give little evidence of objectivity in their work in this or other areas they are involved in.

AARP believes that federal and state agencies should take specific and effective steps to control all forms of pollution, including biological and chemical agents, which threaten health, safety and quality of life and should enact legislation banning smoking in nonresidential public buildings, on public transportation and in restaurants.

Therefore, AARP supports SB 25 and efforts to pass a statewide clean indoor air act in Kansas. We respectfully request the support of the Senate Public Health and Welfare Committee on this very urgent issue.

Thank you. I stand for questions.

Research on Clean Indoor Air Initiatives

Bartecchi, C., Alsever, R., Nevin-Woods, C., Thomas, W., Estacio, R., Bartelson, B., & Krantz, M. September (2006). Reduction in the incidence of acute myocardial infarction associated with a citywide smoking ordinance. Circulation. Retrieved September 12, 2008 from http://www.circ.ahajournals.org/cgi/content/abstract/CIRCULATIONAHA.106.615245v1.
Heart attack hospitalizations were assessed in Pueblo, Colo., during a three-year period, six months before and 18 months after implementation of a smoke free ordinance. The authors compared heart attack hospitalization rates among individuals residing within the city limits, the area where the ordinance applied versus those outside the city limits. A public ordinance reducing exposure to secondhand smoke was associated with a decrease in heart attack hospitalizations in Pueblo.

Sargent, R., Shepard, R., & Stanton, G., (2004). Reduced incidence of admissions for myocardial infarction associated with public smoking ban; before and after study. BMJ 328,977-980 Retrieved January 13, 2009 from http://www.smokefreewi.org/pdf/Helena_Study.pdf.
The study was conducted in Helena, Montana (population 68,140) from December 1997 through November 2003. During the six months the law was enforced the number of admissions for heart attacks fell significantly, from an average of 40 admissions during the same months in the years before and after the law to a total of 24 admissions during the six months the law was in effect. The study concluded that laws to enforce smoke-free workplaces and public places may be associated with reduced deaths from heart disease.

Pell, J., Haw, S., Cobbe, S., Newby, D., Pell, A., Fischbacher, C., McConnachie, A., Pringle, S., Murdoch, D., Dunn, F., Oldroyd ,K., MacIntyre, P., O'Rourke, B., & Borland, W. (2008). Smoke-free legislation and hospitalizations for acute coronary syndrome. The New England Journal of Medicine, 359, 482-491. Retrieved January 13, 2009 from http://contnet.nejm.org/cgi/content/abstract/359/5/482.
Since the end of March 2006, smoking has been prohibited by law in all enclosed public places throughout Scotland. Information was collected prospectively on smoking status and exposure to secondhand smoke based on questionnaires and biochemical findings from all patients admitted with heart disease to nine Scottish hospitals during the 10 month period preceding the passage of the legislation and during the same period the next year. These hospitals accounted for 64 percent of admissions for acute coronary syndrome in Scotland, which has a population of 5.1 million. Overall, the number of admissions for heart disease decreased from 3,235 to 2,684 – a 17 percent reduction – as compared with a 4 percent reduction in England during the same period and a mean annual decrease of 3 percent in Scotland during the decade preceding the study.

Eriksen, M., & Chaloupka, F. (2007). The economic impact of clean indoor air laws. CA: A Cancer Journal for Clinicians, 57(6), 367-78. Retrieved January 14, 2009 from http://caonline.amcancersoc.org/cgi/content/full/57/6/367.
The authors report that clean indoor air laws are easily implemented, are well accepted by the public, reduce nonsmoker exposure to secondhand smoke and contribute to a reduction in overall cigarette consumption. Currently there are thousands of clean indoor air laws throughout the United States, and the majority of Americans live in areas where smoking is completely prohibited in workplaces, restaurants or bars. The vast majority of scientific evidence indicates that there is no negative economic impact of clean indoor air policies, with many studies finding that there may be some positive effects on local businesses.

Hahn, E. J., Rayens, M. K., Butler, K. M., Zhang, M., Durbin, E., & Steinke, D. (2008). Smoke free laws and adult smoking prevalence. Preventive Medicine, 47(2), 206-9. Retrieved January 14, 2009 from http://www.ncbi.nlm.nih.gov/pubmed/18519154.
The authors evaluated whether the adult smoking rate changed in Lexington-Fayette County, Kentucky, following the enactment of a clean indoor air public places ordinance. Behavioral Risk Factor Surveillance System (BRFSS) data from 2001-2005 were used to test whether smoking rates changed in Fayette County from the pre- to post-law period, relative to the change in 30 Kentucky counties with similar demographics. The sample consisted of 10,413 BRFSS respondents: 7,139 pre-law (40 months) and 3,274 post-law (20 months). Results of the study showed a 31.9 percent decline in adult smoking in Fayette County (25.7

percent pre-law to 17.5 percent post-law). In the group of 30 control counties, the rate was 28.4 percent pre-law and 27.6 percent post-law. There were an estimated 16,500 fewer smokers in Fayette County during post-law to pre-law. The authors conclude there was a significant effect of clean-indoor air legislation on adult smoking rates.

Khuder, S. A., Milz, S., Jordan, T., Price, J., Silvestri, K., & Butler P. (2007). The impact of a smoking ban on hospital admissions for coronary heart disease. Preventive Medicine, 45(1), 3-8. Retrieved January 13, 2009 from http://www.ncbi.nlm.nih.gov/pubmed/17482249.

The city of Bowling Green, Ohio implemented a clean indoor air ordinance banning smoking in workplaces and public places in March 2002. This study evaluates the effect of this ordinance on hospital admissions for smoking-related diseases. A reduction in admission rates for smoking-related diseases was achieved in Bowling Green compared to the control city. The largest reduction was for coronary heart disease, where rates were decreased significantly by 39 percent after one year and by 47 percent after three years following the implementation of the ordinance. The findings of the study suggest that clean indoor air ordinances lead to a reduction in hospital admissions for coronary heart disease, thus reducing health care costs.

Lee, D., Dietz, N., Arheart, K., Wilkinson, J., Clark III, J., & Caban-Martinez, A. (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. Retrieved January 13, 2009, from http://www.medscape.com/viewarticle/572987.

The prevalence of self-reported secondhand smoke (SHS) exposures and its association with respiratory symptoms was examined using a telephone survey sample (1,858) of young adults (ages 18-24) residing in Florida, a state with a partial clean indoor air law. Nearly two-thirds (64 percent) reported visiting a bar or nightclub which exposed them to SHS in the previous month; nearly half (46 percent) reported SHS exposure while riding in automobiles; 15 percent reported occupational SHS exposure; and nearly 9 percent reported living with at least one smoker. Personal smoking behavior, parental smoking history, and exposure to SHS in automobiles and in bars or nightclubs were significantly associated with increased reports of respiratory symptoms. Despite residing in a "clean" indoor air state, the majority surveyed continued to report exposure to SHS, especially in automobiles and in bars. These exposures adversely impact respiratory health. The authors conclude that all municipalities should pursue clean indoor air legislation which does not exempt bars and restaurants.

McCaffrey, M., Goodman, P. G., Kelleher, K., & Clancy L. (2006). Smoking, occupancy and staffing levels in a selection of Dublin pubs pre and post a national smoking ban, lessons for all. Irish Journal of Medical Science, 175(2) 37-40. Retrieved January 14, 2009 from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16872027.

In March 2004, the Irish government introduced a comprehensive workplace smoking ban to protect the health of workers. This study evaluates the impact the ban had on staffing levels, customer numbers, and smoking rates in a sample of public houses in Dublin. A total of 38 public houses were visited prior to the introduction of the ban. Each visit lasted at least three hours, and the number of staff, customers and the number of people smoking was recorded each hour. Follow-up visits were conducted exactly one year later, on the same day of the week and at the same time of day, allowing control for seasonal and weekday effects. The results showed a decrease (8.82 percent) in average staff levels while customer numbers increased by 11 percent. There was a dramatic reduction in numbers smoking on a visit to a pub (77.8 percent). The authors conclude that while the hospitality industry predicted major job losses as a consequence of the introduction of the smoking ban, there was no significant decrease in the number of staff employed or in customer numbers.

Stolzenberg, L., & D'Alessio, S. J. (2007). Is nonsmoking dangerous to health of restaurants? The effect of California's indoor smoking ban on restaurant revenues. Evaluation Review, 31(1) 75-92. Retrieved on January 14, 2009 from http://www.ncbi.nlm.nih.gov/pubmed/17259576?dopt=Citation.

The state of California passed the Smoke-Free Workplace Act on January 1, 1995. Many restaurant owners, especially owners of restaurants that served alcohol, opposed the ban for fear that businesses would be affected adversely because of the loss of patrons who smoked. The authors assessed the effect of California's indoor smoking ban on revenue rates for all restaurants, for non-alcohol-serving restaurants, and for alcohol-serving restaurants. Results show that revenues for alcohol-serving restaurants dropped by about 4 percent immediately following the establishment of the indoor smoking ban. However, this reduction was temporary because revenues for alcohol-serving restaurants quickly returned to normal levels. Findings also revealed that the indoor smoking ban had little observable impact on the revenue rate for restaurants overall and for non-alcohol-serving restaurants.

KHPA™
KANSAS HEALTH POLICY AUTHORITY

Statewide Clean Indoor Air Fact Sheet

KANSAS HEALTH POLICY AUTHORITY BACKGROUND:

- KHPA is a quasi-independent unclassified agency created by the legislature in 2005, and led by a Board of Directors appointed by the Governor and legislative leadership.

- KHPA is charged in statute with gathering and compiling a wide array of Kansas health related data that is used to guide policy development and inform the public. Additionally, KHPA is charged in statute with providing development of a statewide health policy agenda including health care and health promotion components.

Background:

- During the 2008 legislative session two bills were proposed; SB 493 and SB 660
- SB 493 mandated public facilities to provide complete clean air; the bill stalled in the Senate Judiciary Committee
- SB 660 was immediately introduced following the defeat of SB 493; the bill was successfully passed out of the Senate Ways and Means Committee but the bill received no further action for the remainder of the session

KHPA is dedicated to improving our health system, promoting healthy behaviors, managing chronic disease, and working to insure more Kansans. Enactment of a Clean Indoor Air Law will help to further these goals. Research demonstrates that smoking and exposure to secondhand smoke can lead to significant health problems and premature death. Highlights from the *Tobacco Use in Kansas 2007 Status Report,* produced by the Kansas Department of Health and Environment (KDHE), help illustrate the seriousness of the problem to both our health and our economy. Among the findings included in the report are:

IMPACT ON HEALTH:

- **Costs lives.**
  - Tobacco use remains the most preventable cause of death and disease in the U.S. and in Kansas;
  - Close to 4,000 Kansans die every year from smoking-related diseases, including 290 deaths attributable to second-hand smoke
  - The American Cancer Society estimates that approximately 87 percent of lung cancer deaths are caused by smoking and exposure to second hand smoke
  - If the current trend continues, 54,000 youth are projected to die from smoking
- **All workers deserve safe workplaces.**
  - More than one in four workers are NOT protected by worksite smoking policies in Kansas
  - Smokers exposed to secondhand smoke at home or work increase their risk of developing lung cancer by 20 to 30 percent and heart disease by 25 to 30 percent

IMPACT TO THE ECONOMY:

- Kansans spend approximately $927 million each year in smoking-attributable medical expenses, including an estimated $196 million on smoking-attributable Medicaid expenses
- Kansas also loses an estimated $863 million each year in lost productivity from an experienced workforce that dies prematurely
- Based on the health impact on cities that have enacted strict clean indoor air laws, a statewide law in Kansas could result in 2,160 fewer heart attacks and a $21 million decrease in associated hospital charges for heart attacks alone
- Additional costs occur each year in medical treatment and lost productivity as a result of exposure to secondhand smoke

How Clean Indoor Air Laws can reduce the Tobacco-Related Disease Burden:

Clean indoor air laws protect the population from the harmful impacts of secondhand smoke. Cigarette smoke contains over 4,000 chemicals and is a known carcinogen.

- Evidence has shown that a clean indoor air ordinance will reduce the smoking rate among active smokers by 5%, a potential decrease of 18,500 smokers in Kansas (KDHE)
- Other studies indicate that clean indoor air laws have been shown to prompt some smokers to quit and others to cut back.
- At least 36 states, including neighboring states, have imposed restrictions on smoking in public places

Public Opinion:

- In a Kansas Adult Tobacco Survey conducted in 2002-2003, 94% of those polled believe that secondhand smoke is harmful to health.
- 83% of Kansans believe smoking is a serious health hazard (Sunflower Foundation, 2007)
- In Kansas, around 20 cities/counties have adopted clean indoor air ordinances and several others are considering them
- A recent poll indicated that 73% of Kansas adults favor such a state law or local ordinance

National Findings:

Other findings that confirm the negative impact smoking and exposure to secondhand smoke has on our health are:

- A 2006 Surgeon General's report states that "the scientific evidence indicates there is no risk-free level of exposure to secondhand smoke."
- In the US, 126 million nonsmokers are exposed to secondhand smoke
- Secondhand smoke results in 3,000 annual cancer deaths in the US and 35,000 deaths from heart disease
- Exposure to cigarette smoke results in an increase of asthma attacks, infections of the lower respiratory tract in children under 18 months old, coughing, and reduced lung function
- Pregnant women are particularly susceptible to having low birth weight babies due to secondhand smoke exposure

Frequently Asked Questions:

- ***Should state government set this policy?*** KHPA supports local ordinances that have been adopted in the absence of a statewide standard. However, a uniform policy would ensure protection from secondhand smoke for all Kansans. A statewide policy would address the concern of business owners who believe that local control of smoke-free policies results in an uneven playing field with nearby communities that may not have a smoke free policy in place. In addition, state government often takes the lead in pre-empting local control when public health is at stake.

- ***Will a statewide smoke free law have an economic impact on hospitality businesses?*** The data from other states and localities does not indicate a negative financial impact. The Surgeon General's 2006 Report examined several studies and concluded "smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry." In a 2006 Zagat Survey of America's top restaurants, 58% of respondents stated they would dine out at the same frequency if restaurants were smoke free and 39% indicated they would dine out more frequently if smoke-free. Only 3% claimed they would dine out less often. Again, a statewide, uniform standard helps businesses attract clientele.

- ***Are smoke-free policies an infringement on individual rights?*** An absence of a smoke free policy is an infringement on the rights of 80% of the population that does not smoke. Research confirms that there are health consequences to secondhand smoke exposure. Workers and the general public should be allowed to work and gather in places without taking on the risk of secondhand smoke. Seventy-six percent of white collar workers already enjoy protection from secondhand smoke, but only 52% of blue collar workers get the same consideration

Research on Clean Indoor Air Laws

- **In Pueblo, Colorado**, a 2006 study found that a clean indoor air ordinance that reduced exposure to secondhand smoke was associated with a 27 percent decrease in heart attack hospitalizations.

- **In Scotland,** a 2008 study found that the number of admissions for heart disease decreased from 3,235 to 2,684 – a 17 percent reduction -- after one year of a nationwide indoor smoking ban.

- **In Lexington – Fayette County, Kentucky**, a 2008 study found that after the enactment of a clean indoor air public ordinance there were an estimated 16,500 fewer smokers (31.9%) in Fayette County. The study concluded there was a significant effect of clean-indoor air legislation on adult smoking rates.

- **In Bowling Green, Ohio** a 2007 study found that there was a 39 percent decrease in coronary heart disease hospital admissions after one year and a 47 percent decrease after three years. The findings of the study suggest that clean indoor air ordinances lead to a reduction in hospital admissions for coronary heart disease, thus reducing health care costs.

- **In Helena, Montana,** a 2004 study found that admissions for heart attacks fell significantly from an average of 40 admissions before the law was enacted, to 24 admissions during the six months the law was in effect.

Tobacco Free Kansas Coalition, Inc.

January 27, 2009
Testimony in Support of SB 25
Before the Senate Public Health and Welfare Committee

Chairman Barnett and Members of the Committee:

I am Mary Jayne Hellebust, Executive Director of the Tobacco Free Kansas Coalition. The Coalition stands in support for SB 25, the Kansas Clean Indoor Air Act

The passage of SB 25 would be a great step forward for public health in Kansas. A strong, simple and fair clean indoor air law is an effective and no cost way to save lives in Kansas, improve the health of all Kansans, and reduce the huge medical costs caused by smoking and exposure to secondhand smoke. A strong, simple and fair clean air law would provide an effective and economical way to improve the health of Kansans. Such a law would would help curtail treatment costs for the lung cancers, heart attacks, strokes and chronic obstructive pulmonary diseases now caused by smoking.

Thirty-seven states currently have smoking regulation laws for workplaces, some protecting more workers than others. Twenty-six states restrict smoking in bars and restaurants. The trend across the states is to promote smokefree laws that protect all workers in all workplaces, including bars and restaurants and recreational establishments. Currently, 70.2% of the U.S. population is covered by some type of state or local policy. Workers not covered are usually those with limited education and low salary levels, often in blue collar or hospitality service jobs, many of whom depend on state resources for health coverage. Currently almost $200 million in state funding goes toward Medicaid costs to treat Kansans for tobacco-related diseases.

We tend to discount what happens on the coasts, but Illinois, Iowa, Minnesota, Ohio, Montana, Nebraska, and Utah have passed laws restricting smoking in workplaces, restaurants and bars. Colorado and New Mexico now have smokefree restaurants and bars. Missouri advocates are continuing their smokefree efforts, particularly after Kansas City, MO adopted a comprehensive ordinance. Oklahoma advocates are trying to remove a preemption bill to allow for smokefree policies at local levels. Indiana's legislature has a smokefree bill on file, and Michigan and Wisconsin advocates are continuing their efforts also. In fact, Kansas and Missouri fall into the ranks of traditional tobacco-growing states like Tennessee, Virginia, Arkansas, Alabama, Mississippi and Georgia that are often controlled by tobacco company interests.

New scientific reports continue to demonstrate the impact of smoking on health—and the resultant costs, which with current budgetary shortfalls are major concerns. Estimates cite between 300 to 600 non smokers in Kansas dying from diseases caused by secondhand smoke each year, with about 4,000 dying from tobacco-related diseases. A comprehensive smokefree law would protect non smokers from exposure to secondhand smoke and assist many smokers to reduce or eliminate their use of tobacco. Passage of SB 25 would also provide a smokefree norm so that Kansas teens would reject becoming the replacement smokers whose health costs negatively impact the economy of our state.

Information on smokefree laws derived from Americans for Non-Smokers Rights Foundation and the National Center for Campaign for Tobacco Free Kids.

Mary Jayne Hellebust, Executive Director
5375 SW 7th Street, Suite 100 ★ Topeka
Phone 785-272-8396 ★ Fax 785-272-5870 ★ v

Date: January 27, 2009

To: Chairman Barnett and Members of the
Senate Public Health and Welfare Committee

From: John Neuenswander, Director of Advocacy
American Lung Association of the Central States

Re: Support for SB 25

The American Lung Association is the premiere national organization dedicated to promoting and protecting lung health. Our mission is to prevent lung disease and promote lung health. Today we are focused on the Fight for Air and our work is accomplished through research, education and advocacy.

On behalf of the Board of Directors, volunteers, and staff of the American Lung Association of the Central States in Kansas, I ask that the Senate Public Health and Welfare Committee adopt SB 25 to provide for a statewide Kansas law to protect residents, especially workers, from the contaminated air pollution caused by unrestricted smoking in enclosed places.

Secondhand smoke has severely detrimental effects on the health of humans. In the 2006 Surgeon General's report titled, *The Health Consequences of Involuntary Exposure to Tobacco Smoke,* several major conclusions were put forth with the scientific evidence to support them. I would like to share five of those major conclusions with you:

1. The scientific evidence indicates that there is ***no risk-free level*** of exposure to secondhand smoke.
2. Secondhand smoke exposure causes disease and premature death in children and adults who do not smoke.
3. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposures of nonsmokers to secondhand smoke.
4. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma. Smoking by parents causes respiratory symptoms and slows lung growth in their children.
5. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer.

This report was written by 22 national experts who were selected as primary authors. The report chapters were reviewed by 40 peer reviewers, and the entire report was reviewed by 30 independent scientists and by lead scientists within the Centers for Disease Control and Prevention and the Department of Health and Human Services.

Last year the Senate Ways and Means Committee considered Senate Bill 660, a comprehensive bill with only minor exemptions. This bill was voted out favorably by the committee but did not advance any further. The American Lung Association asks that you also vote, as the Senate Ways and Means Committee did last year, in taking the first step in protecting our citizens from secondhand smoke.

The facts are clear—secondhand smoke kills. The EPA estimates that 3,000 lung cancer deaths and 37,000 heart disease deaths occur in America each year due to exposure to secondhand smoke. Understanding the importance of public health, 26 other states have put their citizens first by restricting smoking in restaurants and bars. If Kansas follows in their footsteps by passing SB 25, lives will be saved.

January 27, 2009

Senate Public Health & Welfare Committee
Senator Jim Barnett, chairman
RE: Senate Bill 25

I have read recently that proponents of a statewide "ban" (Senate Bill 25) on smoking in indoor public places will emphasize the financial benefits to Kansas of such a state law. Secondhand smoke does indeed cost the state significantly.

Last summer after riding my bicycle from Topeka to Lawrence I stopped at a local restaurant for lunch. I commented about how nice it was to be able to eat anywhere in the city free of tobacco smoke. The proprietor said he was opposed to the Lawrence ordinance when it was proposed and that business did initially drop off when it was first enacted. However, he said it has returned and is glad it is in effect.

A couple of years ago I heard a report on public radio station KANU that a bowling establishment owner told a similar story and said his business went up significantly as non-smokers found bowling pleasant again. I stopped bowling many years ago due to cigarette smoke.

Numerous scientific studies have not supported the contention that indoor smoking restrictions are bad for restaurant business and why would they since over 80% of Kansans do not smoke. Why would catering to 20% of the population be a good idea?

But secondhand smoke is really a health matter. A study reported in newspapers within the last couple of weeks has shown that life expectancy has increased in the studied areas where outdoor air quality has been improved. Why wouldn't cleaning up indoor air be beneficial as well?

In fact, several studies where indoor smoking was restricted in public places (including Helena, Montana: Pueblo, Colorado: and France) have shown heart attack rates have gone down. In Helena during a six month period when a smoke-free indoor law was in effect (June to November 2002) admissions for heart attacks dropped. Due to a technicality the law was overturned and the heart attack rate increased. Fortunately, all of Montana is now smoke-free indoors.

On November 9 last year my 40-year-old daughter died of breast cancer. As a teenager she began working in fast food restaurants where smoking was permitted. She was still working in smoky restaurants when she was diagnosed at age 28. Some studies have shown a statistical link between breast cancer in young women and exposure to tobacco smoke.

I can't say with certainty that secondhand smoke caused Amy's death, but nobody can say that it didn't. Our youngest daughter is now 13 and I can guarantee that she will never work where smoking is permitted as long as she is under parental control even if it

means she can't afford to go to college. Ask yourself if you would let your child or grandchild work where tobacco smoke is present. What is their life worth?

No business has the "right" to permit a dangerous substance to be unnecessarily present where employees or patrons are present. Any employer who does so is playing with the lives of these people. I support the free enterprise system (my father owned his own business as did my late daughter) and am opposed to unnecessary regulations that can burden businesses. However, we do have many necessary regulations that protect the health and welfare of our citizens. That is the role of government.

2009 is the year for Kansas to act and join other states like nearby Colorado, Nebraska and Iowa which have passed statewide laws to protect their citizens and visitors from the dangers of environment tobacco smoke. According to a U.S. Surgeon's Report there is no safe level of exposure to tobacco smoke.

Dave Pomeroy

Dave Pomeroy
2321 SE Libra Ct.
Topeka, Kansas 66605-3505
davepomeroy@sbcglobal.net

Testimony in favor of Senate Bill 25.

Chairman Senator James Barnett and members of the Senate Committee on Public Health and Welfare:

I have been a Health Professional for 33 years which led to my involvement with the passage of a Clean Air Ordinance in Emporia Kansas. I am amazed at the vast amount of evidence, documentation, and scientific facts indicating Second Hand Smoke is, indeed a Public Health issue, yet 20% of the population, that smoke, are allowed to continue to sabotage our health.

This issue demands immediate attention.

According to the U.S. National Cancer Institute, Lung Cancer accounted for over 160,000 deaths in the USA in 2007. That equates to 439 deaths per day. Eighty-five (85%) percent of those diagnosed with lung cancer die within 5 years.

Numerous studies indicate lung cancer, heart attacks and strokes are greatly reduced in states with smoking bans.

Secondhand Smoke kills.

It is the third (3) leading cause of preventable death.

Would you choose to inhale a Class A Carcinogen? Often employees feel they can't make the choice to leave a job or have a voice even when secondhand smoke exposure exists. They are often trapped working in bad health conditions.

Since 1964, overwhelming scientific evidence has substantiated the dangers of Secondhand Smoke for human beings.

When are we going to get it and do something?

I commend your committee for recognizing the need and importance of a Comprehensive Statewide Law that will protect all Kansans, from exposure to Secondhand Smoke in public places of employment. A comprehensive law is critical to create a level playing field for all businesses, especially businesses involved in the hospitality industry.

Many will ignore the facts and rely on fear and predictions instead of facts.

Some suggest this is a "rights" issue. If it's a "rights" issue then do only some people have the right to protect their health?

As for being a Public Health Issue, either it is or it isn't. Secondhand Smoke knows no boundaries and can't be eliminated by any technology available today. Research indicates the only means of effectively eliminating health risks associated with secondhand smoke is to re-define where smoking can occur. No one is saying you can't smoke, but comprehensive legislation eliminating smoking in all indoor places in Kansas is crucial.

Annual health care costs in Kansas related to smoking and secondhand smoke exposure amount to over $927 million dollars. That equates to each Kansas household cost of $582 annually.

Can we afford this toll on Kansas?

Over 30 states have laws regarding secondhand smoke exposure - some better than others. What we have in Kansas is a hodge podge of ordinances, some comprehensively protecting the public health while others only hint at it and fall short of protecting our health.

Over a million Kansans have said they want to breathe clean air in public places.

Is Kansas going to be progressive or once again stick its head in the sand and pretend there is no problem?

Respectfully,
Bobbi D. Sauder, MSN

KANSAS FAITH ALLIANCE FOR HEALTH REFORM

Testimony in Support of SB 25, Statewide Clean Indoor Air

Before the Senate Public Health and Welfare Committee

1:30 p.m., January 27, 2009

136-North, Kansas State Capitol

The Rev. Craig Loya

Mr. Chair and members of the committee, I am here today to speak in support of SB 25 on behalf of the Board of Directors of the Kansas Faith Alliance for Health Reform. I am Craig Loya, Campus Missioner for the Episcopal Diocese of Kansas. I have primary responsibility for the campus ministry at Kansas State University in Manhattan. The Faith Alliance represents a group of Clergy, conference leadership, and lay persons from sixteen faith traditions. We now have over 120 members from across the state who share a vision of equitable access to health care for all people of Kansas. The Faith Alliance was organized two years ago to advocate collectively for a health care system guided by ethically acceptable policies. We appreciate this opportunity to provide comments in support of Senate Bill 25: a statewide approach to reducing the harmful health consequences of tobacco use in Kansas.

With our long-term health care reform objectives perhaps beyond our reach in the current economic downturn, we insist that other cost prevention and health promotion initiatives must be adopted. Legislation to ensure smoke-free public spaces is a practical step that has proven positive outcomes.

We urge the Committee to consider the scientific, health, and population survey data gathered and presented by supporters who are testifying for passage of this bill. We will not repeat the evidence connecting smoking with preventable illnesses, premature death and costly economic consequences.

We believe that our voice is best used to express grass roots interests and local community perspectives of people living and working in Kansas. We believe that the city by city and county by county adoption of these health-motivated initiatives is gaining momentum and will eventually cover the vast majority of the state's population. However, these regulations will not be consistent and we believe that this is an inefficient means and a more costly method of adopting a policy that surveys reveal are supported by a majority of Kansans. Framing this issue around county and city decision-making

Kansas Faith Alliance for Health Reform
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http://kfahr.org

authority implies that this is solely a business and marketplace concern rather than a public health policy issue which we believe is paramount.

The perceived fear of business disruption, new costs or declining revenue with the adoption of smoke free establishments is not borne out in practice. However, if there were a competitive disadvantage of having different rules every few miles throughout the state, this will not occur if we create a uniform policy on clean indoor air statewide.

Most Kansans, we believe, to not interpret this bill as a threat to the authority of local businesses, public and private establishments who are trying to accommodate the perceived demand for smoking privileges' among their patrons and workers who smoke. They are more receptive to the promise of smoke-free places for the majority who are non-smokers. Those who are most supportive of this bill interpret the absence of a smoke free policy as an infringement on the rights of the 82% of Kansans who do not smoke.

Finally, from annually conducted nationwide surveys, including results specifically from Kansas, we know that over 50 percent of current smokers report having tried to stop smoking in the past year. This is encouraging, but demonstrates that although unhealthful and costly tobacco is highly addictive. If we fail to adopt this bill, we are missing one opportunity to help persons who wish to break the addiction to tobacco. By limiting the locations where smoking is welcomed and by ensuring that public meeting places and work sites were smoke free, we are offering important community support for breaking personal smoking habits.

The Faith Alliance plans to remain involved with this and other health reform issues as they are addressed during the session. It is our pledge to keep our members and their friends and colleagues informed about these Kansas health reform deliberations. We will also be praying for reasonable movement on health reform at the national level. Mr. Chairman, we thank you for an opportunity to submit our recommendations and for your consideration and I would be happy to answer any questions that you might have.

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Jeff Levin
Vice President & Assist General Manager
jalevin@varneys.com

January 27, 2008

Public Health and Welfare Committee
Kansas Senate

RE: Manhattan Area Chamber of Commerce Support of Indoor Statewide Smoking Ban, No Exceptions.

Dear Chairman Barnett and members of the Public Health and Welfare Committee,

I am the immediate past chair of the Manhattan Area Chamber of Commerce and still serve on the executive board. I am a business owner. I have also served in different capacities with healthcare issues, the most recently being with the Kansas Health Policy Authority.

This past spring our board took action by a very strong majority to endorse the principle of a statewide ban of indoor smoking, no exceptions. We also by a far narrower margin endorsed the principle of a local ban on indoor smoking, no exceptions. The motivations of our board were focused on some key issues.

First, the debate is no longer about the credibility of health issues related to indoor smoking. The science is clear about the dangers of indoor smoking and the benefits of smoke-free environments. The cost-benefits analysis clearly weighs in on the side of going smoke-free.

Second, it appears inevitable that Kansas will follow the path of other states and countries in attempting to address this issue. Thus our board is concerned about assuring a fair statewide ban that gives no advantage to one business over another. We feel this can be best achieved with no exceptions for any business

Third, businesses thrive best when there is not a mosaic of laws that differ from one community to another. Differences in these ordinances result in confusion, added costs, and time lost fighting locally about an issue that really should be addressed statewide.

Many of you are aware that Manhattan recently enacted a smoking ban. Two groups, Clean Air Manhattan (CAM), and Citizens for Reasonable Ordinances (CRO) campaigned about this issue and spent well over $30,000 between them. The argument was not about whether or not to ban smoking indoors in Manhattan. The debate stemmed around what format to do this and to what degree to impact businesses. Though CAM took the day, the real issue is that we wasted time and money on something that should be done at the state level.

I thus urge you to pass SB25, preferably without the 20% exception for Hotels. This bill adheres to our Chamber's principles and you would be doing many communities a favor by allowing them to avoid costly local fights. You will also save lives.

Sincerely,

Jeff Levin

Public Health and Welfare
Date: 01/27/09
Attachment: 19

GENERAL ATOMICS
INTERNATIONAL SERVICES CORPORATION

Bob Strawn
GAISC Acquisitions &
Manhattan Mayor Pro Tem

January 27, 2009

Testimony in support of Senate Bill 25 before the Senate Committee on Public Health and Welfare

Dear Chairman Barnett and members of the Public Health and Welfare Committee:

I give you this statement as Mayor Pro Tem of Manhattan, a business manager, and a citizen of Kansas. I strongly support a statewide ban on smoking inside public places.

Earlier this month, Manhattan implemented a petition ordinance banning smoking inside public places, places of employment, as well as in other areas. The petition process itself was difficult for both our citizens and elected officials - in many ways pitting the community against itself. The implementation process resulted in an ordinance that met neither the desires of the drafters nor the expectations of voters. And further, it is my understanding that today some of our local establishments are losing business to other communities.

This would have not been the case had the Kansas Legislature implemented a simple, straightforward law that applied across our State. A law that would "level the playing field" for all businesses, avoid the costly local ordinance approach, benefit - not cost - small businesses, and prevent illnesses associated with second hand smoke.

If put to a statewide ballot, I am confident citizens of our State would favor such a law and do so by a wide margin. I encourage you as our representatives to do the right thing and move forward with this legislation.

Respectfully,

Bob Strawn

RJS/s

Public Health and Welfare
Date: 01/27/09
Attachment: 20

1551 Williamsburg Court, Manhattan, KS 66502 Tel: (785) 587-0005 E-mail: bob.strawn@gat.com

Testimony in support of SB 25
before the Senate Committee on Public Health and Welfare
January 27, 2009

Dear Chairman Barnett and members of the committee:

I appear in support of SB 25, the Kansas Clean Air bill, on behalf of the **Kansas Chapter of the American College of Physicians** and the **Riley County Medical Society** as well as **Clean Air Manhattan**.

I also make comments in harmony with my associations as a Past President of the Kansas Lung Association, the Kansas Chapter of the American Heart Association, Past President of the Kansas Society of Internal Medicine, current member of the Board of Tobacco Free Kansas, current President of the Missouri Kansas Association of Cardiac Rehabilitation and Trustee of the Manhattan Township. I am a past president of the Riley County Medical Society, which this last week voted to support a statewide law which would be similar to the Manhattan clean air ordinance recently implemented. I serve as the Chairman of the Public Healthcare Policy committee of the Kansas Chapter of the American College of Physicians. **The sum of the members of these Kansas organizations represents the views of over 1000 professionals. It also represents the sentiments of over 56% of the voting citizens of Manhattan** Kansas. I recently served as the Secretary Treasurer of the Clean Air Manhattan organization that sponsored the recently accepted ordinance in Manhattan.

This week the **Riley County Medical Society** at their monthly meeting reaffirmed its resolve to encourage the state legislature to pass a comprehensive law to restrict smoking from public places and businesses and places where the public would frequent or where workers are employed. The **Kansas Chapter of the ACP supports** the effort of its members to encourage the state legislature to act on a comprehensive law. **Clean Air Manhattan joins with the local chamber of commerce of Manhattan and the sentiments of the City Commission which strongly encourage a state wide law that prevents second hand smoke indoors in public places and workplaces and that has no exceptions**

Manhattan residents by a vote of 56-44% adopted a clean indoor air ordinance that was implemented earlier this month. As the ordinance in Manhattan was evolving, I found that 90% of my patients were supportive of eliminating secondhand smoke in public places. In about one month's time clean air advocates were easily able to collect the nearly 2000 signatures needed to compel the city commission to put a smokefree ordinance on the November ballot. Previous efforts to sway a majority of the city commission over the past 10 years had not been responsive to efforts to adopt a clean indoor air policy. Each effort became bogged down because some policy makers, perhaps unduly influenced by a few vocal opponents, preferred to ignore the issue, while expressing the opinion that a statewide law would be preferable to local action.

The Clean Air Manhattan advocates devised a petition ordinance based on concerns of the public and businesses to ensure that all businesses were treated equally and that all people be protected from secondhand smoke. But again such efforts were met with opposition because some opponents felt that eliminating smoking in outside areas including patios and courtyards was also unfair to those businesses which could provide them.

At this point, city commissioners and the local Manhattan Chamber of Commerce are again expressing support for a statewide law, again based on concerns about fairness and about possibilities that some people might take their recreational or food and hospitality business to smaller communities in the area. In addition, there are also valid concerns that Manhattan residents who work in or visit other Kansas communities will be protected in Manhattan from exposure to the toxins in secondhand smoke, but not in other cities they go to.

The expense for health costs associated with second hand smoke goes across community lines and involves the state as a whole. I am sure Manhattan will find, as other communities have, a reduction in heart attacks and improvement in health in the community now that a smokefree policy is in place. I could write or testify of case after case of my patients and the cost associated with second hand smoke problems.

This ordinance has already created a lot of good will in the community. I have had patients almost every day this month who ask if I am happy with the ordinance and then tell me how they and their spouses are really happy about being able to eat in Aggieville places that they couldn't enter when they were smoking establishments. I have especially been impressed with younger patients who tell me that smokefree bars have helped them to quit their smoking addiction.

I have read the State Bill 25 and find it has some exemptions and also no minimum distance standards for keeping smoking away from windows, doors and ventilation systems, which most proponents wish to be at least 30 feet. One other suggestion would be to provide additional restrictions on smoking in outdoor settings where groups of people congregate and especially where children are gathered. I believe you will find strong support from our local businesses for SB 25, particularly in regard to eliminating exceptions to the law. Certainly the decision of this legislative body would be more efficient if no exceptions are provided in this bill, thus eliminating the need to revisit the question later to make improvements to provide an even healthier atmosphere for all Kansans. The local Manhattan Chamber of Commerce was very strong in their desire for a comprehensive statewide law on smoking indoors which would not have exceptions. They will be giving their own input to this body.

Reducing secondhand smoke in public places is truly a public health issue. By passing a law that will substantially reduce the exposure of Kansans to second hand smoke, the 2009 legislature will provide for healthier people, reduce insurance costs and possibly the need for additional taxes for health coverage, and promote Kansas as a state where visitors can enjoy a healthy atmosphere and where new people can choose to come and

live in a state committed to healthy living. Scientific evidence shows the unhealthy use of tobacco can be reduced as a result of smokefree laws that apply across a state. This proven effect of a clean air law will bring further savings of health care costs, save lives and help our children grow up tobacco free.

Thank you for your consideration.

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Phil Black
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Testimony in Support of SB 25
Before the Senate Public Health and Welfare Committee
January 27, 2009

Today I come to you as the Dean of Academic Affairs at Brown Mackie College – Salina and as a member of the Board of Education for the Salina school district. As an educator my concerns are focused on the future, to help our children negotiate a pathway through the murky waters of today's influences.

I believe with all my heart that no matter how adamantly folks in this room argue for the right to smoke, none want children to take up smoking.

Children look to us for guidance. They don't take up smoking to look younger; they do so to look more "adult-like." No matter how many times we tell them that smoking is bad our actions send a stronger message.

In Massachusetts, a study found that of the towns that enacted very strict bans on smoking there was also a drop of up to 40% of teens taking up smoking. The study credited the very strong messages sent to teens and children in general that each town as a whole is very much against smoking.

This is a complicated issue. It would be disingenuous of me to pretend bar owners won't have some loss of revenue if a state-wide ban goes into effect or to argue that the rights of smokers won't in any way be diminished. To ask that pro-smokers go along with the ban is to ask them to sacrifice.

Yet, it is part and parcel of the American spirit for one generation to sacrifice for future generations. We have seen this in armed conflicts around the globe throughout the history of our nation.

I do not mean to suggest the sacrifices of smokers rise to the level of military service. Yet to the small business owners trying to make a living and to the individuals who light up in the few places left to smoke, the sacrifices resulting from a smoking ban feel very real.

Likewise, elected officials who vote for a state-wide band can also be said to vote for greater regulation and to some extent against some individual rights. But those officials who vote against a ban, even if in the name of the free market and individual rights, are also voting for smoking.

If a state-wide ban on smoking could have the same effect as those towns in Massachusetts, and we could truly achieve a 40% drop of teens who start smoking – or even 20% - then the savings we provide for our children in healthcare and a greater quality of life will have been worth it.

Testimony to Senate Public Health and Welfare Committee
SB 25
Greater Kansas City Chamber of Commerce

January 27, 2009

I am here on behalf of Greater Kansas City Chamber of Commerce in support of SB 25, a bill which would ban smoking in public places in the state of Kansas. The Greater Kansas City Chamber of Commerce, representing over 300 business members in Kansas have made this a priority issue for this session.

The reason is straightforward enough. The Chamber Health Council and Chamber members report the increasing cost of healthcare and health insurance is the number one concern of area businesses and further acknowledge smoking is a prime contributor to rising healthcare costs and increased health risks for our area workforce and families. Smoking drives up both, and rapidly escalating costs of health care and health insurance will eventually lead to an unhealthy business climate in Kansas.

Further, and more specifically, The Chamber's Health Council of Greater Kansas City, chaired by Tom Bowser, President and CEO of Blue Cross and Blue Shield of Kansas City, has studied this issue and surveyed Chamber member businesses about their preferences for a smoking ban. Our members, including many restaurants, have indicated overwhelming support for measures to ban smoking in public places, as long as the playing field is level. Several area cities and counties, including Overland Park; Leawood; Kansas City, Kansas; Olathe; Lenexa and others have already passed similar local ordinances.

The Greater Kansas City Chamber encourages the Kansas Senate Public Health and Welfare Committee to pass to the floor SB 25 to ban smoking in public places and encourages the full Kansas Senate to look favorably upon this bill. Thank you for your consideration and support.

As always, thank you very much for the opportunity to offer this testimony.

BlueCross BlueShield of Kansas

1133 SW Topeka Boulevard
Topeka, Kansas 66629-0001

Web site: www.bcbsks.com

In Topeka – (785) 291-7000
In Kansas – (800) 432-0216

Statement of Graham Bailey, Vice-President, Corporate Communications & Public Relations
Blue Cross and Blue Shield of Kansas, Inc.
Public Health and Welfare Committee
January 27, 2009

Dear Mr. Chairman and Members:

Thank you for allowing me time today to provide you educational information regarding the benefits of clean air acts and to show support for the efforts of Tobacco Free Kansas with regards to enacting a statewide clean air act.

Health insurance premiums increase because the total number of services received and the cost of those services are growing at a rapid rate. The significant cost impact of tobacco-related illnesses makes access to affordable health insurance more difficult for individuals, small businesses and large employers. In addition, we all pay taxes which support insurance programs the state funds such as Medicaid and the State of Kansas employee program. I don't have to tell you that providing health care in Kansas comes with a huge price tag.

If we are truly going to be serious about lowering the cost of health care in Kansas it is essential that we find ways to make people healthier and lower the incidence of chronic diseases. We must shift our focus to making Kansas a healthier place to live and work.

The health insurance premium formula is pretty simple:

Number of services **x** the cost of those services **+** administrative costs **=** premium

Collectively, we can have the greatest impact on the cost of health care by decreasing utilization. The best way to do that is to live healthier lives and make healthier choices.

Allow me to share with you some interesting statistics. In a recent 12-month period, the average cost that Blue Cross and Blue Shield of Kansas paid for a member who suffered a heart attack was $34,488. During that 12-month period we paid out more than $70 million because 2,045 of our members experienced some level of heart attack.

Earlier this month, government researchers announce the results of a three-year study which showed a dramatic drop in heart attack hospitalizations three years after Pueblo, Colorado, adopted a clean air policy. The smoking ban is credited with reducing heart attack admissions 41 percent.

Applying that percentage to the number of our members who had heart attacks during the 12-month period I previously mentioned means that 838 fewer people would have had heart attacks, saving $28.9 million in claims expense.

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Clearly, clean air acts lower utilization, therefore making health care more affordable. How much money could the state save if 41 percent fewer people covered by Medicaid or those in the State of Kansas employee group had heart attacks? I think that is an important question for you to ask yourselves.

Studies indicate that 10-12 percent of today's health care costs are attributable to smoking-related conditions and diseases. The Society of Actuaries has determined that second-hand smoke costs the United States economy $10 billion a year -- $5 billion in exposure to illness and $4.6 billion in lost wages. The Centers for Disease Control and Prevention estimates that smoking costs the U.S. economy $92 billion a year in lost productivity.

I don't believe anyone can come before you and credibly argue that smoking is good for you or for those who breathe second-hand smoke. However, I do think a credible argument can be made that clean air acts provide tremendous financial benefits by lowering utilization and increasing productivity. And, this is really good news, enacting a clean air act costs little or no money to the state. It is one of the most cost-efficient and simplest ways that you can have an immediate and substantial impact on the health of all Kansans.

Thank you for your time. I would be happy to answer any questions you might have at this time or I can be available after the hearing.

Kansas Health Institute

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Kansas Health Institute

Economic Impact of Lawrence Smoke-Free Ordinance

Testimony to the Senate Committee on Public Health and Welfare
January 27, 2009

Introduction

Good afternoon Chairman Barnett and committee members. I am Dr. Sharon Homan, Director of Public Health Studies at the Kansas Health Institute. The Kansas Health Institute is an independent, non-profit health policy and research organization based in Topeka, KS.

I want to introduce Rachel Smit, Policy Analyst with the Kansas Health Institute, and lead author of the Research Brief, "Economic Impact of Lawrence Smoke-Free Ordinance," which has been circulated to the committee.

This afternoon I will share with you our research regarding the economic impact of the Lawrence smoke-free ordinance on restaurant and bar sales, in the context of a larger discussion around the harms and regulation of secondhand smoke, and the business impact of smoking bans.

Following the presentation, Rachel Smit and I will address any questions you may have.

Part 1 Background

1. Most Preventable Cause of Death and Disease in Kansas: Tobacco Use

Echoing Secretary Bremby[i], I begin by stating that tobacco use is the most preventable cause of death and disease in Kansas. Tobacco use, and its corresponding toll on health, continues to rise in Kansas. One in five Kansas adults are current smokers and more than one in four high school students are current tobacco users.

The Centers for Disease Control and Prevention, or CDC, reported in 2008 that cigarette smoking and exposure to secondhand smoke resulted in an estimated 443,000 deaths and 5.1 million years of potential life lost annually in the US.[ii]

This past Friday, the CDC published the State rates of death attributed to smoking. In Kansas, over 3300 adults (35 years and older) die each year from smoking. In every state except Oklahoma, the average annual rate of deaths attributed to smoking has declined from 1996-1999 to 2000-2004. In Kansas, while smoking-related mortality among men declined, there was a 13.5% increase in smoking-attributable morality rates among women in 2000 to 2004 as compared to 1996 to 1999. After Oklahoma and Mississippi, Kansas had the highest percentage increase in smoking related deaths among women.

2. Secondhand Smoke Poses Serious Health Hazards

Secondhand smoke, also called environmental tobacco smoke, poses the same serious health hazards as direct smoking. The US Surgeon General, Dr. Richard Carmona, in his 2006 Report on the health consequences of involuntary exposure to tobacco smoke, gives a clear message that secondhand smoke causes premature death and disease in adults and children. Exposure can lead to asthma, heart disease, ear infections, respiratory illness, and cancer.

3. Comprehensive Tobacco Use Prevention Includes Smoking Bans

Preventing disease and death associated with tobacco use is most effective when a comprehensive approach is used including public education, community- and school-based programs, cessation programs, regulation and enforcement. Changing personal behavior and cultural norms are more successful in combination with restricting smoking at worksites, and increasing tobacco taxes. As the American Cancer Society emphasizes, state and local legislation can effectively level the playing field for all workplaces, including bars and restaurants. Workplace smoking bans protect workers and the public from smoking-related health risks, as well as increase the likelihood that smokers quit.

The Kansas Department of Health and the Environment Tobacco Use Prevention Program, called TUPP, works with state and local partners to promote interventions consistent with the CDC's best practices in tobacco control, including clean indoor air laws.

4. Important Questions for Policy Makers

- ☐ What is the rationale for smoking bans?
- ☐ Why does secondhand smoke (SHS) cause health problems?
- ☐ What are the health effects on adults, children, and infants?

5. What is the Rationale for Smoking Bans?

- ☐ Scientific consensus that exposure to secondhand smoke causes disease, disability and death. These health risks are a major motivation for smoking bans in workplaces and indoor public places, including restaurants and bars.

- There is growing evidence that smoking bans improve work productivity, reduce risks of fires, and are unlikely to have negative economic impact on businesses. In fact, many restaurants and bars see increased business.
- Smoking bans are also tied to gains in health. The Massachusetts Department of Public Health and the Harvard School of Public Health reported a steep decline from 2003 to 2006 in heart attack deaths, which coincided with the implementation of smoking bans in Boston and surrounding areas.[iii] Pueblo Heart Study researchers reported that implementation of a smoke-free ordinance in Pueblo was associated with rapid, sizable reductions in hospitalizations for acute myocardial infarctions. In January 2009, the CDC and the Colorado Prevention Center added to previous evidence, estimating the rate of hospitalizations for Pueblo residents decreased 27% during the 18 months after the ordinance.

6. Why Does Secondhand Smoke (SHS) Cause Health Problems[iv]?

Carcinogens: Side stream smoke contains 4000+ chemicals, including 69 carcinogens such as formaldehyde, lead, arsenic, and benzene; many of which are in higher concentration in side stream than mainstream smoke.

Particulate matter and carbon monoxide pollution: Causes breathing and lung problems such as worsening of asthma symptoms, bronchitis, and COPD.

Tobacco smoke: Increases heart rate, risk of heart disease, heart attack, and stroke.

7. What are the health effects of secondhand smoke[v]?

Adults: Heart disease, lung cancer, suggestive evidence for breast cancer, worsening of asthma and allergies, death. For example, non-smokers exposed to secondhand smoke at home or work increases their risk of developing lung cancer by 20 to 30 percent, and heart disease by 25 to 30 percent.

Children: Asthma, lung infections, allergies, learning difficulties and developmental delays, possible neuro-cognitive problems related to nicotine and carbon monoxide.

Infants: Premature birth, low birth weight, SIDS, bronchitis, pneumonia, and worsened outcomes.

Part 2 Economic Impact of Lawrence Smoking Ordinance

Background

Guided by clear evidence of the health dangers of secondhand smoke, state and local decision makers across the country are implementing policies to protect their constituents. Many states, counties and municipalities have adopted smoke-free laws and ordinances. And those policies, according to recent studies, are having a positive impact on the health of those they were designed to protect.

Though the health effects of smoke-free policies are beginning to emerge, a debate continues about whether such policies adversely affect certain hospitality industry businesses, such as restaurants and bars. Economic theory suggests that either a positive or negative impact on overall sales in the restaurant and bar industry is possible. However, no study published in a peer-reviewed journal has yet found consistent evidence that smoke-free policies have a long-term negative impact on the hospitality businesses thought to be most at risk — restaurants and bars.

The KHI study examines the economic impact of Kansas' first comprehensive smoke-free ordinance implemented by the city of Lawrence in July 2004. It prohibits smoking in all enclosed public places and workplaces, including restaurants and bars.

Data and Methodology

To examine the potential impact of the Lawrence smoke-free ordinance on restaurants and bars we analyzed taxable sales, both food (and other non-liquor sales) and liquor.

We analyzed two sets of monthly tax receipts provided by the Kansas Department of Revenue:

1) Food and non-liquor sales subject to the state sales tax at Food Services and Drinking Places, or FSDP establishments. Businesses in this category include full-service and fast-food restaurants, bars, caterers and mobile vendors. Throughout this brief, businesses in this category are referred to as restaurants and bars.
2) Liquor sales subject to the state's liquor excise tax at businesses licensed for on-premise liquor sales. The liquor excise tax, also referred to as the "liquor-by-the-drink tax," is levied on alcoholic beverages consumed on-premise, not on liquor and beer sold for off-premise consumption.

The Department of Revenue did not make individual-level business data available because of concerns that establishments could be indentified based on levels of tax receipts.

In order to evaluate the potential impact of the smoke-free ordinance, we analyzed:

1) Total sales (both liquor and non-liquor) at restaurants and bars;
2) Food and non-liquor sales at restaurants and bars; and
3) Liquor sales at restaurants and bars.

We compared taxable sales in the three years after implementation of the Lawrence ordinance to sales in the three years prior to its implementation, examining data from July 2001 to June 2007. We adjusted taxable sales for inflation using the monthly Midwest Consumer Price Index. All dollar figures presented in this brief are in June 2007 dollars.

Key Findings

- Total sales at restaurants and bars in Lawrence continued to increase in the first two years after a smoke-free ordinance was implemented in July 2004.
- The trend in total sales did not change notably after implementation of the ordinance.
- The Lawrence findings are similar to those of other studies, which have failed to show any long-term negative impact on the overall restaurant and bar industry.
- Food and non-liquor sales continued to increase after implementation of the ordinance. Liquor sales declined in the first two years after implementation of the ordinance — by 3.0 percent in the first year and 0.6 percent in the second. However, it is not clear whether the ordinance played a role in the decline because liquor sales also declined two years prior to its implementation.

Policy Implications

This study indicates that Lawrence's smoke-free ordinance did not have an overall negative impact on the restaurant and bar industry. Policy makers should be careful to not generalize the experiences of individual businesses following the implementation of smoking ordinances to the restaurant and bar industry as a whole. There are clearly winners and losers in the rough and tumble marketplace of the restaurant and bar industry; however, there are no studies in scientific, peer-reviewed journals that document a consistent, negative, community-wide impact on restaurants and bars following the implementation of a smoking ban.

On the other hand, the harmful effects of secondhand smoke in workplaces have been well established. Furthermore, the U.S. Surgeon General reports that smoke-free policies are the most effective means of protecting people from the harmful effects of secondhand smoke exposure. At least 33 cities and two counties in Kansas have taken such action to restrict smoking on behalf of the health of the public.

The challenge for policymakers is to balance the well-documented, harmful effects of secondhand smoke with valid arguments against the regulation of indoor air safety. There does not appear to be credible evidence that a potential, negative impact on overall sales at restaurants and bars should be one of those considerations. However, other issues remain such as the importance of local control and the appropriate role of government in protecting the public's health.

Questions

Thank you for listening to my testimony concerning the economic impact of the Lawrence smoke-free ordinance, as well as to the broader considerations of the serious risks to health associated with secondhand smoke. We invite you to ask questions.

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[i] Kansas Department of Health and Environment. Tobacco Use in Kansas 2007 Status Report, available at http://www.kdheks.gov/tobacco/download/TobaccoReport.pdf.

[ii] CDC. Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses --- United States, 2000--2004 MMWR 2008;57(45);1226-28, available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm.

[iii] http://www.boston.com/news/local/articles/2008/11/12/smoking_ban_tied_to_a_gain_in_lives?mode=PF.

[iv] CDC. Centers for Disease Control and Prevention Secondhand Smoke Fact Sheet, available at www.cdc.gov/tobacco/data_statistics/Factsheets/SecondhandSmoke.htm.

Economic Impact of Lawrence Smoke-Free Ordinance

Senate Public Health and Welfare Committee
Topeka, Kansas • January 27, 2009

Sharon Homan, PhD, Director of Public Health Studies
Rachel Smit, MPA, Policy Analyst
Kansas Health Institute

Part 1

Background

Tobacco Use: Most Preventable Cause of Death and Disease in Kansas

- One in five Kansas adults currently smoke.
- One in four high school students use tobacco.
- In Kansas, over 3300 adults (35 years and older) die each year from smoking.
- Kansas women had 13.5% increase in smoking-attributable morality rates, 2000 - 2004 as compared to 1996 -1999.

Secondhand Smoke (SHS) Poses Serious Health Hazards

- US Surgeon General (2006) gives clear message that SHS causes premature death and disease in adults and children.
- No safe amount of SHS, according to Surgeon General.
- Exposure can lead to asthma, heart disease, ear infections, respiratory illness, and cancer.

Comprehensive Tobacco Use Prevention Includes Smoking Bans

- Most effective prevention strategies are comprehensive (American Cancer Society):
  - Public education;
  - Community- and school-based programs;
  - Cessation programs;
  - Restricting smoking at worksites; and
  - Increasing tobacco taxes.

Comprehensive Tobacco Use Prevention Includes Smoking Bans

- KDHE Tobacco Use Prevention Program, (TUPP):
  - Works with state and local partners.
  - Promotes interventions consistent with the CDC's best practices in tobacco control, including clean indoor air laws.

Important Questions for Policy Makers

- What is the rationale for smoking bans?
- Why does secondhand smoke (SHS) cause health problems?
- What are the health effects of SHS on adults, children, and infants?

What Is the Rationale for Smoking Bans?

- Concern that exposure to second-hand smoke causes disease, disability, death.
- Smoking bans improve work productivity, reduce risks of fires.
- Unlikely negative economic impact.
- Many restaurants and bars see increased business.

What Is the Rationale for Smoking Bans?

- Smoking bans tied to gains in health.
  - The Massachusetts Department of Public Health and the Harvard School of Public Health reported a steep decline from 2003 to 2006 in heart attack deaths, which coincided with the implementation of smoking bans in Boston and surrounding areas (2003-6).
  - Pueblo Heart Study researchers reported implementation of a smoke-free ordinance in Pueblo was associated with rapid, sizable reductions in hospitalizations for acute myocardial infarctions.

Why Does Secondhand Smoke Cause Health Problems?

- Carcinogens
  - Side stream smoke contains 4000+ chemicals
  - 69 carcinogens (formaldehyde, lead, arsenic, benzene)
  - Many in higher concentration in side stream than mainstream smoke
- Particulate matter, carbon monoxide pollution
  - Causes breathing and lung problems, worsening of asthma symptoms, bronchitis, COPD
- Tobacco smoke
  - Increases heart rate, heart disease, heart attacks

What Are the Health Effects of Secondhand Smoke?

- Adults
  - Heart disease, lung cancer, evidence for breast cancer, worsening of asthma and allergies, death
- Children
  - Asthma, lung infections, allergies, learning difficulties, developmental delays, possible neuro-cognitive problems related to nicotine and carbon monoxide
- Infants
  - Premature birth, low birth weight, SIDS, bronchitis, pneumonia, and worsened outcomes

Part 2

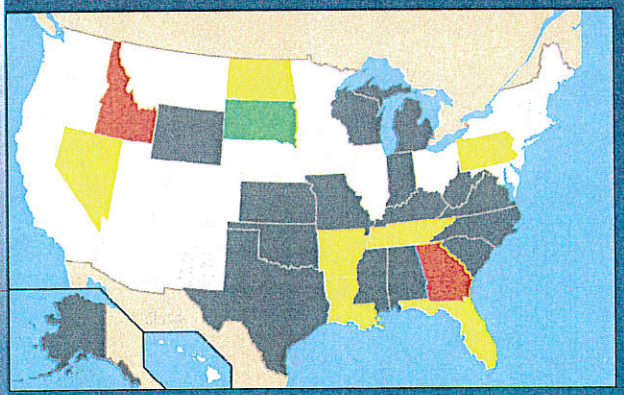
Economic Impact of Lawrence Smoking Ordinance

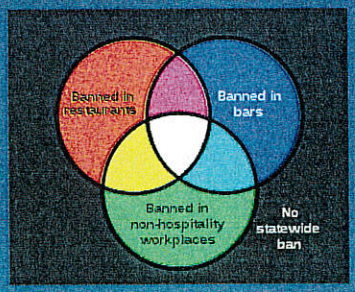
Smoke-Free Ordinances

- State and local decision makers across the country are implementing policies to protect their constituents.
- Many states, counties and municipalities have adopted smoke-free laws and ordinances.
- Those policies, according to recent studies, are having a positive impact on the health of those they were designed to protect.

State Smoke-Free Ordinances

- 35 states passed clean air legislation.
- Kansas Legislature rejected statewide clean air act.

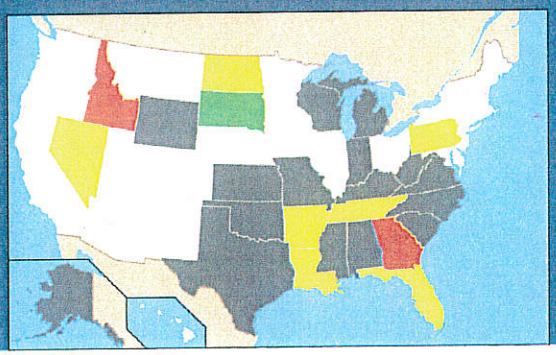


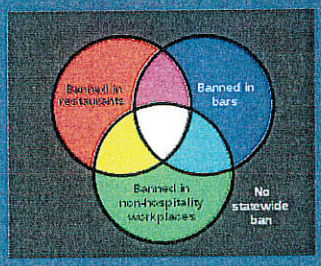


As of 9-21-2008

State Smoke-Free Ordinances

- 1973 Arizona - first state to ban smoking in public places
- 1994 California - workplace smoking ban
- 1998 California - complete smoking ban in enclosed spaces
- 2002 Delaware and South Dakota
- 2003 New York and Florida
- 2004 Connecticut, Idaho, Maine, and Massachusetts





As of 9-21-2008

Local Kansas Smoke-Free Ordinances

2002 Salina (clean air from 5-9pm in restaurants)
2004 **Lawrence**, Hutchinson
2005 Abilene, Bel Aire
2006 Fairway, Olathe, Parsons, Roeland Park
2007 Garden City, Lenexa, Johnson County
2008 Harvey County, Hesston, Leawood, Mission, Newton, Ottawa, Overland Park, Prairie Village, Shawnee, Westwood, Wichita, Winfield
2009 Derby, Emporia, Manhattan, Wyandotte County

25-Hb

Evaluation of Economic Impact: Lawrence 2004 Smoking Ordinance

- Examined impact of ban on restaurant and bar revenue: taxable sales of food (and other non-liquor sales) and liquor.
- Analyzed monthly tax receipts provided by the Kansas Department of Revenue:
  - Food and non-liquor sales subject to the state sales tax at Food Services and Drinking Places, or FSDP establishments.
  - Liquor sales subject to the state's liquor excise tax at businesses licensed for on-premise liquor sales.

Evaluation of Economic Impact

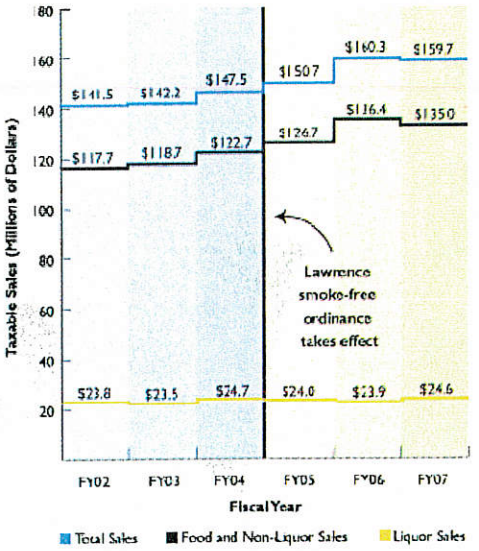
- Evaluated potential impact of smoke-free ordinance on:
  - Total sales at restaurants and bars;
  - Food and non-liquor sales at restaurants and bars; and
  - Liquor sales at restaurants and bars.
- Compared taxable sales:
  - In three years after implementation of the ordinance to sales in the three years prior to its implementation, July 2001 to June 2007.
- Adjusted taxable sales for inflation using the monthly Midwest Consumer Price Index.

Key Findings

- Total sales at restaurants and bars in Lawrence increased during first two years after ordinance was implemented in July 2004.
- Trend in total sales did not change notably after implementation of the ordinance.
- Food and non-liquor sales continued to increase after implementation of the ordinance. Liquor sales declined slightly and then increased.
- Lawrence findings are similar to other studies: no long-term negative impact on the overall restaurant and bar industry.

Taxable Sales: Lawrence Restaurant and Bars, 2002 - 2007

Figure 1. Taxable Sales at Restaurants and Bars in Lawrence

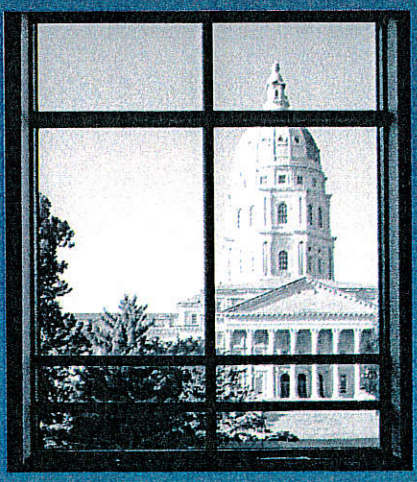


Note: Total sales are food, non-liquor, and liquor sales combined. Sales have been adjusted for inflation and are in June 2007 dollars. Fiscal years are July to June.

Policy Implications

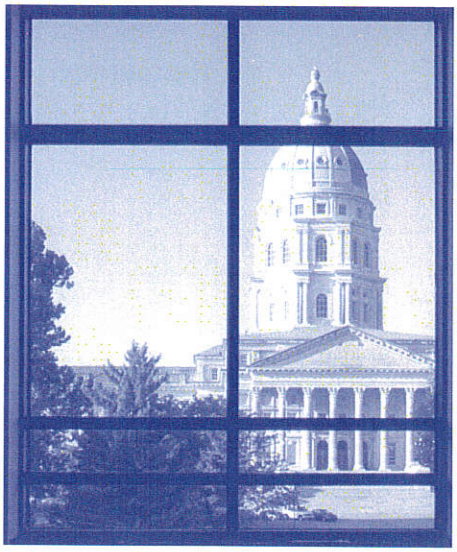
- Indicates that Lawrence smoke-free ordinance did not have an overall negative impact on restaurant and bar sales.
- Policy makers should be careful to not generalize the experiences of individual businesses.
- There are clearly winners and losers in the restaurant and bar industry; however,
- No studies in scientific, peer-reviewed journals document a consistent, negative, community-wide impact on restaurants and bars following implementation of a smoking ban.

Kansas Health Institute



Information for policy makers. Health for Kansans.

KHI/09-02 • January 2009



Issue Brief

KANSAS HEALTH INSTITUTE

Economic Impact of Lawrence Smoke-Free Ordinance

Rachel J. Smit, M.P.A.
Sharon M. Homan, Ph.D.
Gina C. Maree, M.S.W., LSCSW

More Information

This Issue Brief describes the results of a Kansas Health Institute study on the impact that a smoke-free ordinance in the city of Lawrence had on restaurant and bar sales. It is intended to help policymakers better understand the health and economic implications of such ordinances.

For a list of references used in writing this brief and a supplemental report, which includes information about the study methodology, please visit our Web site at www.khi.org.

Results in Brief

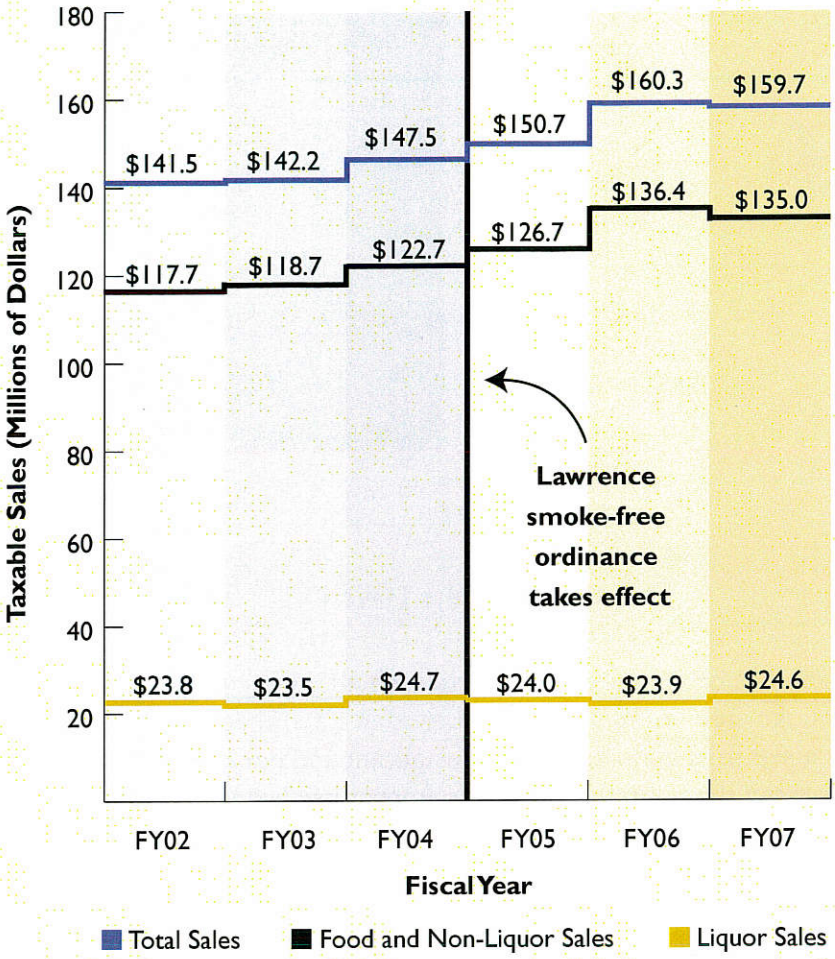
There has been much debate about whether the comprehensive smoke-free ordinance implemented in Lawrence in July 2004 caused financial harm to the restaurant and bar industry. The question about the potential economic impact has been clouded by claims of individual proprietors who indeed may have experienced a decrease in business following implementation of the ordinance. This study addresses the broader question of the ordinance's impact on the restaurant and bar industry. It found that:

- Total sales at restaurants and bars in Lawrence continued to increase in the first two years after a smoke-free ordinance was implemented in July 2004.
- The trend in total sales did not change notably after implementation of the ordinance.
- Food and other non-liquor sales continued to increase in the first two years after implementation of the ordinance.
- Liquor sales declined in the first two years after implementation of the ordinance but it is not clear whether the smoke-free policy played a role in the slowdown because liquor sales also declined two years prior to its implementation.
- The Lawrence findings are similar to those of other studies, which have failed to show any long-term negative impact on the overall restaurant and bar industry.

BACKGROUND

Guided by evidence of the health dangers of second-hand smoke, state and local decision makers across the country are implementing smoke-free policies. And those policies, according to recent studies, are having a positive impact on the health of those they were designed to protect.

Figure 1. **Taxable Sales at Restaurants and Bars in Lawrence**



Note: Total sales are food, non-liquor, and liquor sales combined. Sales have been adjusted for inflation and are in June 2007 dollars. Fiscal years are July to June.

A new study in Colorado documented a significant drop in heart attack hospitalizations in the community of Pueblo in the three years after the adoption of a ban on workplace smoking. And while some believe that factors other than the ban may have contributed to the drop, the researchers who conducted the study have said the results suggest a cause-and-effect relationship.

Another study, this one in New York state, also showed a notable decline in heart attack hospital admissions in the year after the state adopted a comprehensive smoke-free law.

Though the health effects of smoke-free policies are beginning to emerge, a debate continues about whether such policies adversely affect certain hospitality industry businesses, such as restaurants and bars. Economic theory suggests that either a positive or negative impact on overall sales is possible. However, no study published in a peer-reviewed journal has yet found consistent evidence that smoke-free policies have a long-term negative impact on the restaurant and bar industry.

The KHI study detailed in this brief examines the economic impact of Kansas' first comprehensive smoke-free ordinance. Adopted by the city of Lawrence in 2004, it prohibits smoking in all enclosed public places and workplaces, including restaurants and bars.

Though data limitations make it difficult to document a cause-and-effect relationship, the study shows that total sales at restaurants and bars continued to increase in the first two years after implementation of the ordinance before leveling off in the third. Food and non-liquor sales followed a similar trajectory. The study also shows that liquor sales declined in the first two years after implementation. However, it is difficult to draw any conclusions about the role that the ordinance played in the downturn given that liquor sales also declined two years prior to its implementation.

Generally, it appears that the results of the Lawrence study are similar to those of the peer-reviewed studies referenced earlier that failed to show any long-term negative impact on the restaurant and bar industry.

DATA AND METHODOLOGY

To examine the potential impact of the Lawrence smoke-free ordinance on restaurants and bars we analyzed taxable sales, both food (and other non-liquor sales) and liquor.

25-20

We analyzed two sets of monthly tax receipts provided by the Kansas Department of Revenue:

1) Food and non-liquor sales subject to the state sales tax at Food Services and Drinking Places, or FSDP establishments. Businesses in this category include full-service and fast-food restaurants, bars, caterers and mobile vendors. Throughout this brief, businesses in this category are referred to as restaurants and bars.
2) Liquor sales subject to the state's liquor excise tax at businesses licensed for on-premise liquor sales. The liquor excise tax, also referred to as the "liquor-by-the-drink tax," is levied on alcoholic beverages consumed on-premise, not on liquor and beer sold for off-premise consumption.

The department of revenue did not make individual-level business data available because of concerns that establishments could be identified based on levels of tax receipts.

In order to evaluate the potential impact of the smoke-free ordinance, we analyzed:

1) Total sales (both liquor and non-liquor) at restaurants and bars;
2) Food and non-liquor sales at restaurants and bars; and
3) Liquor sales at restaurants and bars.

We compared taxable sales in the three years after implementation of the Lawrence ordinance to sales in the three years prior to when it took effect, examining data from July 2001 to June 2007. We adjusted taxable sales for inflation using the monthly Midwest Consumer Price Index. All dollar figures presented in this brief are in June 2007 dollars.

We summed the inflation-adjusted monthly data over state fiscal years (July to June) to examine annual sales over time. To further test our findings, we also analyzed the monthly data using multiple linear regression techniques. The results of those analyses can be viewed in a supplemental report available at www.khi.org.

THE LAWRENCE EXPERIENCE

The trend in total sales did not change notably after implementation of the smoke-free ordinance.

- As is depicted in Figure 1 on the preceding page, total sales at restaurants and bars grew by 2.2 percent in the first year after implementation of the ordinance. That growth rate is in line with those in the years prior to the ordinance: 3.7 percent in FY04 and 0.5 percent in FY03.
- In the second year under the ordinance total sales grew by 6.4 percent, the highest growth rate during the six years that we analyzed.
- In the third year under the ordinance, sales dropped by 0.4 percent. The reason for this leveling-off is not clear. But it is unlikely that any change directly related to the ordinance would first be detected three years after its implementation.

Food and non-liquor sales continued to increase in the first two years after implementation of the ordinance.

- As depicted in Figure 1 on the preceding page, the pattern of food and non-liquor sales mirrors total sales. This is because food and non-liquor items comprise roughly 85 percent of total sales.
- Prior to implementation of the ordinance, food and non-liquor sales grew by 0.9 percent in FY03 and by 3.4 percent in FY04.

In Lawrence, the trend in total sales at restaurants and bars did not change notably with the implementation of the smoke-free ordinance in July 2004.

- In the first two years after implementation of the ordinance, food and non-liquor sales continued to grow, by 3.2 percent in FY05 and by 7.7 percent in FY06. Sales then dropped by 1.0 percent in FY07.

Liquor sales dropped after implementation of the ordinance, but the cause is unclear.

- As depicted in Figure 1 on page 2, liquor sales in Lawrence fluctuated both before and after the ordinance was implemented.
- Prior to the ordinance, liquor sales declined by 1.3 percent in FY03 and then increased by 5.1 percent in FY04.
- Liquor sales declined in the first two years after implementation of the ordinance — by 3.0 percent in the first year and 0.6 percent in the second. But they grew by 3.3 percent in FY07, nearly reaching the level they were at in FY04 before the ordinance.
- It is difficult to establish a clear cause-and-effect relationship between the ordinance and the slowdown in sales.

POLICY IMPLICATIONS

This study indicates that Lawrence's smoke-free ordinance did not have an overall negative impact on the restaurant and bar industry. While it may have affected individual businesses in different ways, policymakers should be careful not to generalize those experiences to the restaurant and bar industry as a whole. There are clearly winners and losers in the rough-and-tumble marketplace of the restaurant and bar industry. However, there are no studies in scientific, peer-reviewed journals that document a consistent negative, community-wide impact on restaurants and bars following the implementation of a smoke-free ordinance.

On the other hand, the harmful effects of secondhand smoke in workplaces and public places are well established. And the U.S. Surgeon General has reported that smoke-free policies are the most effective means of protecting people from secondhand smoke exposure. That determination has been reinforced by the results of recent studies that have documented a reduction in heart attacks in communities with smoke-free policies.

As of the writing of this brief, at least 33 cities and two counties in Kansas have restricted smoking in public places, workplaces or both.

State policymakers contemplating smoke-free policies will continue to grapple with questions about local control and the appropriate role for government in protecting the public's health. But on the key question of whether smoke-free policies have negatively impacted the restaurant and bar industry as a whole, the verdict appears to be in.

Acknowledgments

The authors would like to thank Mr. Steven Brunkan at the Kansas Department of Revenue for his invaluable assistance with the data for this study. We would also like to thank Ms. Jessica Hembree, Dr. Candace Ayars, Dr. Leigh Murray, Dr. Michael Fox, Dr. Melissa Clark, Mr. Ron Liebman and Mr. Nathan Wozny for their assistance with earlier phases of this study.

KANSAS HEALTH INSTITUTE

The Kansas Health Institute is an independent, nonprofit health policy and research organization based in Topeka, Kansas. Established in 1995 with a multi-year grant from the Kansas Health Foundation, the Kansas Health Institute conducts research and policy analysis on issues that affect the health of Kansans.

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KHI/09-02 • January 2009

City of Derby

January 27, 2009

Senator Jim Barnett, Chair
Senate Committee on Public Health & Welfare
State Capitol Room 142-E
Topeka KS 66612

Re: SB 25 Statewide prohibition on smoking in indoor public areas

Dear Senator Barnett & Committee Members:

Thank you for this opportunity to address the committee in favor of a bill to prohibit smoking in indoor public areas. Such a bill would address the number one public health concern in a manner that is fair to businesses and in a manner in which cities are inherently unable to do ourselves.

Last year, the City of Derby passed a comprehensive clean indoor air ordinance because of our community's concern for those who don't smoke but who suffer from exposure to second-hand smoke. First, we attempted to craft a local ordinance to provide employees and the public with clean indoor air. Because of our city's close proximity to Wichita, we were unable to come up with an ordinance that would also create a level playing field for businesses, especially the hospitality industry. Derby businesses supported the measure as long as they were protected from their customers driving 15 minutes to a Wichita bar or restaurant for a smoking environment. Indeed, **any city that is in close proximity to another city will always have this conflict between good public health policy and a level playing field for business**.

That's why this issue should be dealt with by the state.

While Derby joins other cities in commending the state's past intention of leaving local matters to cities to handle, **clean indoor air is indeed a matter of statewide concern**. Piecemeal passage of local ordinances will not address the widespread health concerns caused by exposure to secondhand smoke, nor will it protect Kansas residents beyond each city's political boundaries.

Thank you for your consideration.

Highest regards,

Dion P. Avello

Dion P. Avello
Mayor

611 N. Mulberry . Derby, Ks 67037-3533 . 316/788-3132 . Fax 316/788-6067
www.derbyweb.com E-mail: CityManager@derbyweb.com

Public Health and Welfare
Date: 01/27/09
Attachment: 26

AMERICAN HEART ASSOCIATION

Heart disease kills one in three American women — but you have the power to prevent it.

What's your risk?

Take the
Go Red Heart Checkup
at **GoRedForWomen.org**.

- *Answer a few questions.*
- *Learn your risk.*
- *Get a personalized action plan to reduce your risk.*
- *Talk with your healthcare provider about your findings.*

Join the Go Red Movement!

Go Red For Women is the American Heart Association's national movement to help women reduce their risk of heart disease.

Go Red for women
American Heart Association
Learn and Live

nationally sponsored by
macy's MERCK

January 27, 2009

Mr. Chairman and Members of the Public Health & Welfare committee:

I thank you for this opportunity to write to you about an issue I feel very strongly about...a clean indoor air law. I appreciate being able to state my opinion.

The attachment tells my story and gives you a great deal of information about women's heart health in Kansas. Did you know that the risk of heart attack is 91% higher for women regularly exposed to secondhand smoke?

Since I have made a commitment to myself to be a strong and healthy woman, I would always make a life choice that supported continued good health for my life and for my family's life. There is nothing about a smoking environment or a second and even third hand smoking environment that promotes any component of a good health.

As I travel to other states (many of them having clean indoor air laws), I find coming home to Kansas not always a good thing because of the air we are forced to breathe as we dine out in restaurants and participate in activities in the public arena. I do not appreciate going to any establishment as a customer and hard working tax payer and have to choose whether I can eat at that particular restaurant or not because they allow others to smoke.

The government would never let restaurants hang asbestos from the ceilings or be rat infected and still operate their business. However, subjecting someone to secondhand smoke is just as bad and people don't seem to realize that, or worse just ignoring the fact. Just separating smokers from non-smokers in different rooms does not address the issue. Air is still air and the smoke still spreads to innocent bystanders.

Enacting a statewide clean indoor air law is one of the most cost effective ways to improve health. This is a preventative policy that protects non-smokers, provides an environment for smokers to quit and encourages children to never start smoking. With fewer smokers, the Kansas taxpayers win because less money will go to smoking-related health care costs.

I feel our state has a responsibility to provide any and all residents with health conscious environments that promote good health for its citizens. I support SB 25, I hope you will pass this bill. Thank you.

- Gail Dicus, Kansas Resident and National Face of American Heart Association's Go Red For Women Movement.

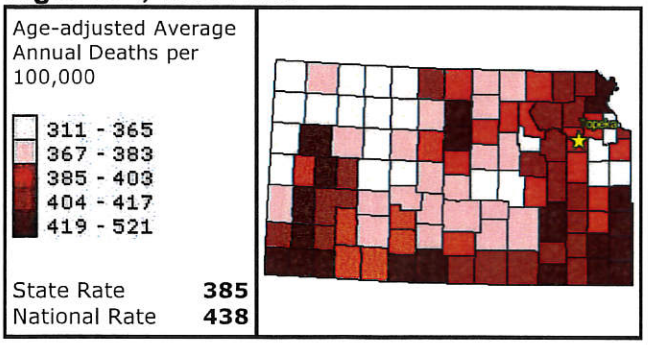
Heart Disease and Stroke. You're the Cure.

American Heart Association. | American Stroke Association.
Learn and Live.

Women and Cardiovascular Disease State Facts: Kansas

- Heart disease, stroke, and other cardiovascular diseases are the No. 1 killer of women in Kansas.
- Heart disease and stroke account for 31% of all female deaths in Kansas.
- On average, nearly 11 females die from heart disease and stroke in Kansas each day.

Heart Disease Death Rates, All Women, Ages 35+, 1996-2000



- Heart disease alone is the leading cause of death in Kansas, accounting for 3,005 female deaths in 2005.
- Stroke is the No. 3 cause of female death in Kansas, accounting for 964 female deaths in 2005.
- Nearly 57% or women in Kansas are overweight and obese.*
- In Kansas, 17.1% of women smoke cigarettes.

Source: Centers for Disease Control and Prevention. Mortality data based on WISQARS Leading Cause of Death Reports, 2005; state maps from the Division of Heart Disease and Stroke Prevention; risk factor data from the BRFSS, 2007.

* Overweight is defined as having a body mass index (BMI) of 25.0-29.9 and obese is defined as having a BMI of 30.0 or greater.

Gail Dicus
Kansas Survivor

Seven years ago, Gail Dicus of Leawood, Kan., was traveling life's highway at a nice speed, obeying the "speed limit and rules." Then a major detour changed her course. She knew something was just not right when she struggled to recover from lingering bronchitis, was bone tired and short of breath. After several visits with doctors, she was diagnosed with cardiomyopathy, a disease of the heart muscle that caused enlargement of the heart.

For the next four years, Gail worked with cardiologists to sustain her life. She entered a new world of medicines and their side effects, tests and procedures, all while trying to maintain her business and family life. Her health deteriorated, and Gail's name was placed on the wait list for a new heart. She waited for a miracle and it eventually came - a new heart.

"My life almost came to a screeching stop...do not let yours!" Gail said. "Research is the key. The American Heart Association and our superb hospitals provide cutting-edge information and technology on prevention. Seek information and put into practice that which prevents heart disease."

Gail's experience shows why the American Heart Association and its volunteers are advocating for more research, education and screening to help prevent and cure heart disease, stroke and other cardiovascular diseases, the No. 1 killer of women in Kansas and the United States.

KANSAS HOSPITAL ASSOCIATION

Thomas L. Bell
President

TO: Senate Public Health and Welfare Committee

FROM: Chad Austin
Vice President, Government Relations

DATE: January 27, 2009

RE: Senate Bill 25

The Kansas Hospital Association appreciates the opportunity to comment regarding the provisions of Senate Bill 25, which establishes a statewide clean indoor air law. KHA and its members strongly support this legislation.

Tobacco is the number one source of preventable disease worldwide and is responsible for an estimated 438,000 deaths, or nearly one of every five deaths, each year in the United States. As health care providers, we feel it is necessary to take a stand to stop the use of tobacco. Second hand smoke, and most recently "third hand smoke", has been proven hazardous to people's health. Several reports, including the one issued by the U.S. Surgeon General in June 2006 state that "*there is no risk-free level of exposure to secondhand smoke. Nonsmokers exposed to secondhand smoke at home or work increase their risk of developing heart disease by 25 to 30 percent and lung cancer by 20 to 30 percent*". The report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke,* also cited that second-hand smoke exposure is a known cause of sudden infant death syndrome, respiratory problems, ear infections, and asthma attacks in infants and children.

In a statewide public opinion poll conducted in December 2008 by the ETC Institute on behalf of KHA, 75 percent of the respondents indicated that they would support a statewide smoking ban in all indoor public places. Of the 25 percent that answered in opposition, 40 percent indicated that they would support a partial smoking ban. The results of the poll demonstrate that overwhelming public support for a statewide indoor smoking ban does exists.

Kansas hospitals have been smoke free facilities since 1994. The implementation of that law took time; it was, after all, a culture change. The same will be true with the passage and implementation of SB 25. It must not be forgotten that tobacco use is not a right; it is a privilege that should be restricted when it is detrimental to others. Senate Bill 25 will help Kansas become a more healthy and safe environment. We appreciate your leadership and support on this major health issue and encourage your passage of SB 25.

Thank you for your consideration of our comments.

KANSAS ACADEMY OF FAMILY PHYSICIANS
CARING FOR KANSANS

January 26, 2009

To: Senate Public Health & Welfare
From: Carolyn Gaughan, CAE, representing the Kansas Academy of Family Physicians
Re: SB 25 Clean Indoor Air Act

Chairman Sen. Barnett and Members of the Senate Public Health & Welfare Committee:

Thank you for this opportunity to present testimony on Senate Bill 25, on behalf of the Kansas Academy of Family Physicians (KAFP). Our organization has over 1,500 members across the state, of which more than 900 are practicing physicians, 155 are resident-physician members, and the others are medical students and retired members. The roots of family medicine go back to the historical generalist tradition. The specialty is three dimensional, combining knowledge and skill with a unique process. The patient-physician relationship in the context of the family is central to this process and distinguishes family medicine from other specialties.

The intention of this bill is to eliminate exposure to secondhand smoke in most public places. It also increases the fines for violations, a key point for effective enforcement efforts. Members of our organization whole-heartedly support this bill.

The health effects of tobacco use are well-documented. The very sickest people that our members see in their clinics, emergency rooms, and hospitals across Kansas are the people who have damaged their hearts, blood vessels, and lungs through tobacco use.

1. Tobacco and secondhand smoke costs the state millions each year, and are the leading preventable health care costs in Kansas.

- $927 million in health care costs in Kansas each year are directly caused by tobacco use. [1,2,3]
- $38.9 million in health care costs in Kansas each year are directly caused by exposure to secondhand smoke. [1,2,3]
- $196 million each year of the Kansas Medicaid program's total health expenditures are caused by tobacco use. [1,2,3]

2. Tobacco use is the leading preventable cause of death in Kansas. In Kansas, 3,900 adults die each year from their own smoking. [4,5,6]

3. Secondhand smoke is the third leading cause of preventable death in this country. Secondhand smoke kills 290 – 520 Kansans each year. [7]

There is evidence that clean air laws promote cessation, with further positive effects. [7] As parents quit smoking, the health impact will be more evident on tobacco-related diseases caused by exposure to

7570 W. 21st St. N. Bldg. 1046, Suite C | Wichita, KS 67205 | 316.721.9005 | 1.8

KANSAS ACADEMY OF FAMILY PHYSICIANS
CARING FOR KANSANS

secondhand smoke, especially children. Tobacco use during pregnancy causes serious harm to the fetus. Tobacco cessation saves money – preventing just one smoking-related low birth weight baby can result in the avoidance of more than $40,000 in health care expenditures. For children, exposure to secondhand smoke results in more than 10,000 annual cases of low birth weight, more than 2,000 cases of SIDS (sudden infant death syndrome), more than 8,000 new cases of asthma, and as many as 1 million cases of exacerbated asthma.

Although it is not the focus of this bill, I think it is also worth noting that research compiled by the Campaign for Tobacco Free Kids showed significant support regarding the public's acceptance of significant increases in cigarette taxes.[8] Here are some of their findings:

Support for cigarette-tax increases is bipartisan. In all states, majorities of Democrats, Republicans and independents all support increasing the state tobacco tax.

To balance state budgets, voters strongly prefer increasing state tobacco taxes over either other tax increases or cuts to vital state programs.

Supporting tobacco tax increases wins votes for candidates of both parties from voters from both parties. In Kansas, 41 percent of Republicans would cross party lines to vote for a Democrat who supports a 50-cent cigarette tax increase over a Republican who opposes it.

The Academy applauds the committee for considering SB 25 and strongly urges you to bring it out of committee without exclusions.

Sincerely,

Carolyn Gaughan

Carolyn Gaughan, CAE
Executive Director

References:
1. CDC, *Data Highlights 2006* [and underlying CDC data/estimates]
2. CDC's STATE System average annual smoking attributable productivity losses from 1997-2001 (1999 estimates updated to 2004 dollars)
3. CDC, "Annual Smoking-Attributable Mortality, Years of Potential Life Lose, and Economic Costs -- United States 1995-1999"
4. U.S. Centers for Disease Control and Prevention (CDC), CDC, CDC, *Sustaining State Programs for Tobacco Control, Data Highlights, 2006* (and underlying CDC data/estimates)
5. State Highlights 2002: Impact and Opportunity, April 2002
6. Adult smoking from CDC 2005 BRFSS; youth smoking from state YRBS, YTS, or other state-specific surveys
7. National Cancer Institute, Health effects of exposure to environmental tobacco smoke: the report of the California Environmental Protection Agency, Smoking and Tobacco Control Monograph No. 10, NIH publication no. 99-4645, 1999
8. Campaign for Tobacco Free Kids Fact Sheet: Voters in All States Support Significant Increases in State Cigarette Taxes

25 January 2009

Members, Senate Committee on Public Health & Welfare
Kansas State Capitol
300 SW 10th Street
Topeka, KS 66612

RE: Support for SB 25

Dear Honorable Senators,

I'm writing to express my unwavering support for the passage of SB25, "An Act . . . relating to smoking . . ." The health risks and associated costs of treating people afflicted by an addition to tobacco are well known, and scientifically documented. So too are the health risks associated with inhaling second hand smoke. The protection of the health of all Kansans is one of the most important responsibilities that your committee bears. Passage will improve the lives of countless Kansans as it will provide for safer and healthier work environments, and public places without any threat from the ill effects of second hard smoke. As any of us who have known loved ones and dear friends who have suffered from lung, throat and lip cancer, heart failure and emphysema, know that we want to protect them from a similar fate.

It is easily understood why loving parents consider it their mission to ensure the health and well being of their children. As legislators you also have a similar mission to all Kansans. As a city commissioner, I work diligently to promote the public health of all residents in Manhattan. I fully supported a clean air ordinance for our city, and I celebrated the passage of the citizens' petition that created our city ordinance banning smoking in public places.

When I eat in a restaurant, health inspectors make sure that I'm not eating the food left on someone else's plate before me. Employees are not forced to drink water remaining in the glasses from those patrons who have left. Yet many Kansans, as customers, or workers, are often subjected to hazardous second-hand smoke in far too many public places. In what manner does this situation protect public health? A complete ban on smoking in indoor public places is a sound, sensible, legitimate step in promoting the health of Kansans. I'm aware that elected officials in several cities are either working to strengthen their smoking bans, as is the case with Salina, or to pass a smoking ban ordinance, as is the case with Junction City.

A state wide smoking ban in public places is a health issue, pure and simple. It deprives no one of their rights any more so than health inspectors deprive Kansans of their rights when ensuring restaurants are clean and safe. SB25 is not prohibition, which always fails. SB25 is a sensible step toward protecting human health from known, and costly hazards. It is time for the legislature to live up its responsibility to promote the health of all Kansan, and to pass SB25.

Sincerely yours,

James E. Sherow
City Commissioner
Manhattan, KS

SKAETS STEAK SHOP
2300 N. Main
Hutchinson, Kansas 67502
620-662-9845

January 27, 2009

Dear Senator Barnett and Members of the Senate Public Heath and Welfare Committee;

I am writing to you in support of bill SB25. I have experienced the suspense of Hutchinson passing a non smoking law, heard pro's and con's from our customers, and lived through the fears of the un-known results of the smoking ban.

Since 1947, Skaets Steak Shop has been a favorite local neighborhood family café in Hutchinson, KS. Many generations of families frequent Skaets on a daily basis, some we see two to three times daily. Skaets is located next door to the Kansas State Fairgrounds which generates extra business when there are special functions, especially during the annual State Fair in September.

As the owner of Skaets Steak Shop for over 33 years I can testify to what I know second hand smoke to truly be. "Second hand smoke" does not really describe how disgusting it really is. It is spending free time or down time cleaning and painting the ceilings and walls up to 3 times per year because the nicotine stained the metal. While cleaning, the brown nicotine would run down our arms and smell like something rotten. The towels were a very dirty brown and had to be trashed. There can be no doubt in my mind that was on the ceiling and what was running down our arms is also being absorbed in our bodies and lungs.

With this information, I urge you in the name of thousands and thousands of people that are working in these conditions in the State of Kansas to support SB25. We all know from the studies that second hand smoking is bad for our health. Then why are we allowing the people that can least afford medical bills and loss of work that is related to illnesses from second hand smoke to work under these conditions?

In conclusion, after the smoking ban in Hutchinson, business is booming and we have been able to upgrade knowing that it will not be ruined from the smoke damage. We continue to see new faces daily and Skaets have become a reputable icon in Hutchinson.

Cordially,

Donna Bartholomew
Skaets Steak Shop

Peppers, Inc.

Public Health and Welfare
Date: 01/27/09
Attachment: 31

January 27, 2009
Testimony in Support of SB 25
Before the Senate Public Health and Welfare Committee

Dear Chairman Barnett and Members of the Committee,

My name is Marcy Morris, and I am the Mother of Zachary Morris. I am writing in support of SB 25.

Zachary is a twin and was born 6 ½ weeks premature. He is a wonderful, fun-loving ten year old now, but suffers from severe asthma. Fortunately, his twin does not have asthma. Each day is spent trying to manage Zachary's asthma at home and at school. Second-hand smoke is always a concern of ours. We do not support businesses that allow smoking but unfortunately, there are still many of them in our great state. The Wichita ordinance proves to be very confusing to us. I first must check and see if the business I am about to take Zachary to is smoke-free so that I don't have to worry about him having an asthma attack there. It would certainly be simpler, safer, and easier for everyone if Kansas had a comprehensive ordinance that prohibits smoking in all public places and places of employment. Indeed, there are many places in Kansas we have to be careful of, as smoking ordinances are not in place to protect Zachary. Going to an outdoor mall is not an option for us. There are people walking around smoking and they often trigger an asthma attack for him. Many times I have walked him through second-hand smoke to take him into the Doctor's office and once inside, he has to stop and use his inhaler in order to go forward to the Doctor's office. It's sad to think that other people can inflict harm to innocent children. It should not be allowed, and I am asking you to support SB 25 so Zachary and others can breathe the clean air they deserve.

On a different note, my husband works in Wichita, where they have a non-comprehensive smoking ordinance. His employer provides a smoking room for its employees. Employees enter the building and pass directly through the smoking room in order to get to their work areas, thus exposing their health to second-hand smoke. I believe a comprehensive statewide ordinance would protect all employees as no one should be forced to begin their day by walking through deadly tobacco smoke.

The Surgeon General's report completed in 2006 showed that scientific evidence supports the claim that second-hand smoke is not safe at any level. Kansas is desperately in need of a comprehensive statewide smoking ordinance that protects the health of it's citizens.

Please support SB 25 so all Kansans have the opportunity to breathe clean air.

Sincerely,

Marcy Morris

Marcy Morris
421 Berry
Rose Hill, KS 67133
316-268-7371 (work)
316-655-4762 (cell)
316-776-0732 (home)

MARISCOS
FRESH SEAFOOD AND PASTA
4821 West 6th, Lawrence, Ks 66049
785-312-9057

January 27, 2009

RE: Support for Senate Bill 25

To whom it may concern:

Since the smoking ban ordinance in Lawrence, Ks went into effect, our guests and staff have been enjoying the clean air in our restaurant. It is so nice to have an environment to work and live where you don't have to worry about exposure to second hand smoke.

We definitely support Senate Bill 25 for statewide clean air ordinance to eliminate indoor tobacco use.

Respectfully,

Fee Monshizadeh
General Manager
Mariscos Restaurant

Public Health and Welfare Committee
Kansas Senate

Written Testimony of Bruce Snead

City Commissioner
Manhattan, Kansas
January 27, 2008

In Support of SB 25

As a Manhattan city commissioner since 1995 and three-time Mayor of Manhattan, I have dealt with local no-smoking ordinances three times. Due to the overwhelming evidence of public health benefits from such laws in other cities and states, I have supported all three efforts, with the most recent one resulting in a petition ordinance passed in November 2008 by our citizens. We are now in the first month of implementation. While it is positive and appropriate for cities to initiate and pass no-smoking ordinances, a statewide comprehensive approach achieves the greatest good and avoids the repetitive debate and delay, and potential inequities of ordinances created at the local level. My reading of this bill indicates it will be more comprehensive in some areas and not in others. A key positive point to be reinforced is the prohibition within a ten foot radius of an access point for doorways, air intakes or operable windows of existing facilities. However, this distance requirement should be extended to fifteen feet to be the same as that required for newly built facilities, and twenty feet would be preferred for both existing and new facilities for reasons of consistency and effectiveness. I also recommend deleting the exemption for a percentage of hotel rooms. Of course, local municipal ordinances which are in place and have more stringent aspects than any state legislation should remain in effect.

Please create and pass a simple, strong, and fair law that builds on the lessons learned at the local level and in other states. Doing so will save lives and reduce health care costs, and will not cause economic hardships. The results across the nation make this clear.

Bruce Snead
810 Pierre St.
Manhattan, KS 66502
785-537-7260 Home 785-532-4992 Work email snead@ci.manhattan.ks.us

Public Health and Welfare
Date: 01/27/09
Attachment: 34

Kansas Respiratory Care Society
An Affiliate of the American Association for Respiratory Care

January 27, 2009

Testimony in Support of SB 25
Before the Senate Public Health and Welfare Committee

Dear Chairman Barnett and Members of the Committee:

I am writing in support of Senate Bill 25 regarding prohibiting smoking in public places.

The Kansas Respiratory Care Society is a professional organization representing the 1,500 respiratory therapists in the state of Kansas. As respiratory therapists, we work daily with people suffering from lung diseases, ranging from premature infants, to children with asthma or cystic fibrosis, adults with chronic lung disease such as emphysema or chronic bronchitis.

All Kansans deserve protection from second-hand smoke exposure. Those Kansans who already suffer from lung disease or other health conditions should not have to put their health at risk by exposure to smoke. Recent statistics from the American Lung Association have shown that 12% of our citizens have been diagnosed with asthma, emphysema, chronic bronchitis and lung cancer. They deserve the right to breathe clean air.

As respiratory therapists, we see patients who come to our emergency department with an acute asthma attack often triggered by inadvertent exposure to cigarette smoke. We talk to frustrated parents who restrict their children's activities, unable to protect them from second hand smoke and fearful of risking another illness.

The best solution for all of our citizens is to have a consistent statewide statute that provides the protection that all Kansans deserve. On behalf of the Board of Directors of the Kansas Respiratory Care Society, I urge you and your committee to support SB 25.

Sincerely,

Debbie Fox, MBA, RRT-NPS
KRCS Patient Advocacy Chair
649 N. 159th East
Wichita, KS 67230
(316) 210-6458

cc: KRCS Board of Directors

Date: January 27, 2009

To: Senator Barnett and Members of the

Senate Public Health and Welfare Committee

From: Salvador Romero, Kansans for Nonsmokers Rights, Topeka

I would like to ask you to ask you to pass SB 25 which would provide all Kansas workers and all Kansas communities smokefree workplaces and public places.

I have worked hard over the past 20 years to get owners and managers in Topeka to adopt smokefree policies for their businesses, not just for the workers in those places, but for all the customers who come in. So many times when I have tried to explain how harmful secondhand smoke is, they have told me that they would like to but that they can't do it by themselves, because they are afraid that they would lose the business of smokers. Many of them think that the only way that they can continue to make money is by allowing people who smoke to pollute the air space of everyone in those businesses.

I have also tried twice to get the City Council of Topeka to pass effective smokefree ordinances. In the mid-80's a group of us were able to get the Council to adopt an ordinance providing some non-smoking areas in restaurants. But we all know that smoke does not stay in the smoking section—it contaminates the whole area when even one person is smoking in a restaurant. In 1999-2000, another group of smokefree advocates asked the City Council to make Topeka a smokefree city. However, that effort only got fast food restaurants smokefree—as if children were the only ones who are hurt by smoking in public places.

Here it is 2009, and we still have many, many Kansas cities where workers are forced to breathe in smoke at their daily job and where many Kansans cannot enter bars, restaurants, clubs, bingo halls, bowling alleys, etc., because secondhand smoke makes them sick.

I had been a bowler my entire life until my doctor made me give it up. He told me I needed to give up smoking for health reasons. He did not realize that the only smoking I was doing came from breathing in secondhand smoke when I was participating on bowling league teams.

I cannot appear today because I had heart surgery this month and I am still recovering. But I would like you to take my letter to heart and remember all of the people like me whose health has been damaged by exposure to secondhand smoke. Please pass SB 25 for the health of all Kansans. It is wrong to expect the people in each city in Kansas to try and get their city governments to pass local ordinances. It is too hard, it takes too long, and some city councils, like the ones in Topeka, do not listen to their constituents on such health matters. A smokefree statewide policy is the job of our state legislature.

Thank you for reading my letter. I live at 217 N.E. Woodruff in Topeka and my phone number is 785-234-5483 if I can provide you additional information.

Emporians for Drug Awareness, Inc.
Working for a Safer Community

PO Box 2015
Emporia KS 66801

620.341.2450 voice
620.341.2456 fax

January 27, 2009

Testimony in favor of Senate Bill 25

Chairman Sen. James Barnett and members of the Senate Committee on Public Health and Welfare:

Our state is currently dotted with hybrid ordinances that all ban smoking in public places:

- The distance one can smoke from the building varies from 10 to 50 feet, depending on which community's ordinance is being reviewed;
- The type of business where the smoking is banned may be different – some include restaurants but exclude bars while others include *all* workplaces; some include all motel rooms, some a percentage; some exclude fraternal organizations;
- One can smoke in an outside smoking area according to some ordinances while some dictate that smoking patios are not allowed;
- Some base the ban on the time of day the smoking is to occur or whether or not anyone under the age of 18 is allowed into the establishment

The one common feature of all of these ordinances is the use of legislation to protect public health by reducing exposure to secondhand smoke in public places. Unfortunately, because of pressure placed on local governments from some who object to a ban in their community, the patchwork of ordinances that have been successfully adopted is not impacting tobacco-related diseases in the way that a comprehensive statewide law could.

While our state is struggling to cover costs, it is imperative that we consider ways to eliminate the incidence of preventable diseases as a way to decrease the burden to our healthcare systems. According to the U.S. Surgeon General, there is no safe level of exposure to secondhand smoke and only smoke-free laws provide effective protection from secondhand smoke. Diseases and deaths caused by such exposure are preventable; studies done in communities that have adopted ordinances eliminating smoking in public places demonstrate marked reduction in heart attacks and other health problems associated with smoking and secondhand smoke.

The evidence is indisputable. A vote to adopt a comprehensive state-wide law for clean air is a prudent method of saving the lives of Kansans.... all day every day, no matter their age or where they work.

Respectfully,

Teresa Walters, Certified Prevention Specialist
Executive Director

Public Health and Welfare
Date: 01/27/09
Attachment: 37

SUBMISSION OF WRITTEN TESTIMONY FOR SB 25

January 27, 2008
Testimony in Support of SB 25
Before the Senate Public Health and Welfare Committee

Dear Chairman Barnett and Members of the Committee,

I am writing in support of SB 25. I am a registered respiratory therapist and a resident of Newton, Kansas. As you may know, Newton, Kansas was able to pass a comprehensive smoking ordinance in the fall of 2007, restricting smoking in public places. Both as a health care professional dealing with respiratory health and as a resident of Newton, KS, the new ordinance in Newton has been a wonderful change and I hear frequent positive comments from others. Even those businesses who were initially opposed have seen little if any negative impact on their organization. Taken from an article in the Newton Kansan dated May 2, 2008:

> "Newton — The clean-air ordinance that went into effect in Newton in January doesn't seem to be affecting businesses negatively — or positively — as some had predicted.
>
> While the afternoon coffee drinkers might not come in on a regular basis anymore and some smoking travelers may keep moving, they have been replaced with people who appreciate the smokeless environment.
>
> "It's nice going into a place and not having to put up with the smoke," said Norman Vogts of Hutchinson, whose wife recently passed away from emphysema. "I used to be a trucker, and they don't need to smoke in (the restaurants)……""

The benefit is clearly felt by those who may be sensitive to the second hand smoke and can now enjoy being out in public without the fear that the smoke will trigger an asthma attack or shortness of breath. Others appreciate that their clothes no long smell like smoke after going out for a nice dinner. Some will enjoy a longer life and reduced risk of respiratory disease, heart disease, or cancer as evidenced by studies published in medical journals. I urge your support of a comprehensive state wide ban on smoking in public places. Thank you for your consideration.

Respectfully,

Donald Carden

Donald G Carden, RCP, RRT
912 W 17th St
Newton, KS 67114
316 295-6408

Public Health and Welfare
Date: 01/27/09
Attachment: 38

KSNA
KANSAS STATE NURSES ASSOCIATION

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www.nursingworld.org/snas/ks
ksna@ksna.net

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Susan Bumsted, M.N., R.N.
President

The Voice And Vision Of Nursing In Kansas

S.B. 25: Clean Indoor Air
Support - Written

Senator Barnett and members of the Senate Public Health and Welfare Committee, the Kansas State Nurses Association has taken formal positions in the past twenty years around smoking prevention, access to cessation, allocation of the master settlement agreement and clean indoor air. All of these have been aimed at supporting public policy that reduces tobacco consumption and the harmful health risks associated with second-hand smoke. S.B. 25 provides for a uniform statewide clean indoor air law which KSNA supports. This piece of legislation may have the greatest impact of any other piece of legislation passed this session.

In 2006, U. S. Surgeon General Richard Carmona issued the federal government's scientific report, which concludes that there is no risk free level of exposure to secondhand smoke. S.B. 25 raises a significant public policy debate about one aspect of prevention in the leading cause of preventable death, tobacco usage. Secondhand smoke poses an unnecessary health risk forced upon those non-smokers who are in public places where smoking is unrestricted. This public policy debate is about eliminating an unnecessary health risk and protecting those who don't smoke from secondhand smoke. Included in this testimony are some highlights from the California Case Study that are designed to refute arguments opponents will offer, with evidence based data.

First, the Health Data: The Dangers of Secondhand Smoke
During the early to mid 1990s, Californians increasingly recognized secondhand smoke as a serious threat to their health, on the job, in public places and at home. Secondhand smoke exposure was scientifically linked to lung cancer, nasal sinus cancer, chronic coronary heart disease, heart attack, exacerbation of asthma in children and Sudden Infant Death Syndrome.[2] In fact, secondhand smoke was identified as America's third leading cause of preventable death.[3] While exposure to secondhand smoke was a critical health hazard for all indoor employees, studies showed that food service workers, especially bar and restaurant employees, were in particular danger.

> *Bar employees working an 8-hour shift involuntarily inhaled amounts of smoke that was the approximate equivalent of smoking 16 cigarettes, nearly a pack. This made secondhand smoke a significant occupational health hazard for food service workers.*[1]

> *California waitresses died from higher rates of lung cancer and heart disease than any other female occupational group and were found to have four times the expected lung cancer mortality rate and 2.5 times the expected heart disease mortality rate of any female occupation group.*[1]

Bartenders were discovered to have rates of lung cancer higher than firefighters, miners, duct workers and dry cleaners.[4]

The Economic Impact is misrepresented and scare tactics are used about economic losses (jobs, revenue, etc.) The California Department of Health Services tracked economic indicators throughout the implementation of both aspects of their laws implementation. As sales tax data accumulated from 1998 forward, following implementation of the ban in bars and gaming clubs, economic fears proved groundless. Support from business owners increased as sales tax figures for each succeeding quarter emerged from the California State Board of Equalization, showing no negative statewide impact from the law. The California Smoke-free Workplace Act went into effect in bars in January, 1998. Nearly 89% of all California bars were attached to restaurants at the time.

Annual Taxable Sales figures from the California Board of Equalization (BOE) for such establishments selling beer and wine and for those selling all types of liquor increased every single quarter of 1998, 1999 and into 2000. Revenue data from the BOE, the only state agency that collected sales data directly from business owners also showed that:

For establishments selling beer and wine, annual sales in 1997 were $7.16 billion dollars; annual sales in the same category for 1998 increased to $7.6 billion and in 1999 they rose to $8.27 billion.

For establishments selling all types of alcohol, 1997 sales were $8.64 billion dollars; 1998 sales increased to $9.08 billion and 1999 annual sales increased to $9.82 billion.

An additional $879,816,000 in sales were made in California's beer, wine and liquor serving establishments during 1998 as compared to 1997 – after the California Act became effective for bars.

The rate of growth in beer, wine and liquor serving establishments outpaced all retail outlet taxable sales in 1998 compared to 1997 by 7.7%. In fact, in 2000, California's bar and restaurants had over 108,000 more employees than in 1995, bringing the total workforce to nearly 926,000 people for the hospitality sector.

In summary, the BOE reported increased sales tax revenues for California's smoke-free liquor licensees every quarter from January 1998 through the year 2000. Sales tax figures indicated that Taxable Annual Sales for bars and restaurants serving just beer and wine and for those serving all types of alcohol increased in 1998 over 1997 figures by more than 5%. Their sales increased again in 1999 over 1998 by more than 8% and the increases continued in 2000.

Demonstrated Improvement in Employee Health

Reaction to the law from bar and restaurant employees was understandably favorable. Elated servers, bartenders, casino dealers, musicians and other hospitality industry employees declared they would never go back to smoke-filled work environments. Their high regard for the law was well founded. A

1998 University of California, San Francisco, study revealed that 59% of bartenders surveyed who had symptoms of respiratory ailments and impaired lung capacity before the law went into effect for bars showed a significant decrease in symptoms and measurably improved lung capacity just one month after the law took effect. [1]

Conclusion

Research on public opinion and statewide compliance rates demonstrated that support for the California Smoke-free Workplace Act and levels of compliance with the law grew from quarter to quarter between 1998 and 2001. Polls showed more than 72% of bar patrons and over 80% of the general public approved of smoke-free workplaces, including bars. In California, smoke-free environments became the accepted norm, at work, in public places, and at home.

Additionally, smoke free workplace legislation withstood repeated attacks. Voters declared their support in 1994 by defeating Proposition 188, attempting to overturn Labor Code 6404.5. Subsequent attempts to limit or overturn the state's smoke-free bar law have failed. Why? **Because cancer rates went down, revenues went up and public acceptance of smoke-free bars became a "social norm".**

Seventy-one percent (71%) of Kansans surveyed by the Sunflower Foundation (2007) support a statewide law. Eighty percent (80%) of Kansans don't smoke. We believe clean indoor air rises to the level of a "significant health" initiative that calls on state lawmakers to make the decision.
KSNA asks for your support of a Clean Indoor Air Law for Kansans. Please pass S.B. 25.

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KAHSA
creating the future of aging services

To: **Senator Jim Barnett, Chair, and Members Senate Public Health and Welfare Committee.**
From: **Debra Zehr, KAHSA President**
Date: **January 26th, 2009**
Re: **Senate Bill 25**

Thank you, Chairman Barnett, and members of the Committee, for this opportunity to provide written comments on Senate Bill 25. The Kansas Association of Homes and Services for the Aging represents 160 not-for-profit long term care provider organizations through out the state. Over 15,000 senior Kansans are served by our members, which include retirement communities, nursing homes, assisted living facilities, senior housing and community service providers.

As an association we support the amendments to Senate Bill 25 that recognize Adult Care Homes as homes, and allows elders to make decisions regarding their lives based on this fact by exempting certain sections of Adult Care Homes from this ban.

We support Senate Bill 25 which would remove tobacco smoke in enclosed public places. Several studies have shown public smoking bans to be effective in reducing levels of heart disease in communities embracing such bans. Recently, a study endorsed by the Centers for Disease Control claimed a 41% reduction in hospitalizations from heart attacks over a three year period in Pueblo Colorado.

Thank you. I would be happy to respond to questions. Please feel free to contact me at Ph: 785-233-7443, or by email at dzehr@kahsa.org .

785.233.7443
kahsainfo@kahsa.org

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Public Health and Welfare
Date: 01/27/09
Attachment: 40

CDC Home | Search | Health Topics A-Z

MMWR Weekly

January 2, 2009 / 57(51);1373-1377

Reduced Hospitalizations for Acute Myocardial Infarction After Implementation of a Smoke-Free Ordinance --- City of Pueblo, Colorado, 2002--2006

Exposure to secondhand smoke (SHS) has immediate adverse cardiovascular effects, and prolonged exposure can cause coronary heart disease (*1*). Nine studies have reported that laws making indoor workplaces and public places smoke-free were associated with rapid, sizeable reductions in hospitalizations for acute myocardial infarction (AMI) (*2*--*7*). However, most studies examined hospitalizations for 1 year or less after laws were implemented; thus, whether the observed effect was sustained over time was unknown. The Pueblo Heart Study examined the impact of a municipal smoke-free ordinance in the city of Pueblo, Colorado, that took effect on July 1, 2003 (*3*). The rate of AMI hospitalizations for city residents decreased 27%, from 257 per 100,000 person-years during the 18 months before the ordinance's implementation to 187 during the 18 months after it (the Phase I post-implementation period).* This report extends that analysis for an additional 18 months through June 30, 2006 (the Phase II post-implementation period). The rate of AMI hospitalizations among city residents continued to decrease to 152 per 100,000 person-years, a decline of 19% and 41% from the Phase I post-implementation and pre-implementation period, respectively. No significant changes were observed in two comparison areas. These findings suggest that smoke-free policies can result in reductions in AMI hospitalizations that are sustained over a 3-year period and that these policies are important in preventing morbidity and mortality associated with heart disease. This effect likely is mediated through reduced SHS exposure among nonsmokers and reduced smoking, with the former making the larger contribution (*4,6,7*).

Two control sites were selected for comparison with the city of Pueblo: 1) the area of Pueblo County outside the city of Pueblo limits and 2) El Paso County, including Colorado Springs, the most populous city in this county. The city of Pueblo and Colorado Springs are located approximately 45 miles apart (Figure 1). Neither of the control sites had smoke-free laws in place before or during the study periods. Based on data from the Behavioral Risk Factor Surveillance System, the adult smoking prevalence for Pueblo County (including the city of Pueblo) and El Paso County during 2002--2003 was 25.9% (95% confidence interval [CI] = 20.2%--31.6%) and 17.4% (CI = 14.5%--20.2%), respectively. The corresponding prevalences for 2004--2005 were 20.6% (CI = 15.4%--25.8%) and 22.3% (CI = 19.3%--25.4%). Separate smoking prevalence estimates were not available for the city of Pueblo.

Persons with recognized AMIs that occur in the city of Pueblo and Pueblo County receive care at two hospitals, Parkview Medical Center and St. Mary-Corwin Medical Center, both located within the city of Pueblo. Persons with recognized AMIs that occur in El Paso County receive care at two other hospitals, Penrose Hospital and Memorial Hospital, both located in Colorado Springs. Data on AMI hospitalizations were drawn from electronic Colorado Hospital Association administrative data. These data included admission date, primary diagnosis code (based on *International Classification of Diseases, Ninth Revision* codes 410.0--410.9), sex, age, postal code of residence, and hospital name. No other patient-level data, including smoking status, were available. U.S. Census Bureau population data for 2006 were used as denominators in calculating AMI hospitalization rates. A more extensive description of the study's methodology has been published

previously (*3*). AMI hospitalization rates among residents of the city of Pueblo, the area of Pueblo County outside the city of Pueblo limits, and El Paso County were compared across three periods: 0--18 months before the smoke-free law took effect (pre-implementation period), 0--18 months after this date (Phase I, post-implementation period), and 19--36 months after this date (Phase II, post-implementation period), for a total of 54 months. Rates were compared between periods using a chi-square test. Relative rates (RRs) were calculated as the ratios of AMI rates between two periods. Data presented in this report were not adjusted for seasonality because a season-adjusted analysis of Phase I versus the pre-implementation period found that the adjustment did not significantly change the findings (*3*).

During Phase II, AMI hospitalizations among residents of the city of Pueblo continued to decrease (Figure 2). AMI hospitalization rates differed significantly across all three periods within the city of Pueblo ($p<0.001$). The rate of AMI hospitalization among residents in the city of Pueblo in the Phase II post-implementation period was 152 per 100,000 person-years, compared with 187 per 100,000 person-years in the Phase I post-implementation period, for an RR of 0.81 (CI = 0.67--0.96) (Table). In contrast, no significant change was observed for residents of the area of Pueblo County outside the city of Pueblo limits (139 per 100,000 person-years versus 115 per 100,000 person-years; RR = 1.21 [CI = 0.80--1.62]) or for residents of El Paso County (149 per 100,000 person-years versus 150 per 100,000 person-years; RR = 0.99 [CI = 0.91--1.08]) during the same period. The RR for AMI hospitalizations in the city of Pueblo in the Phase II post-implementation period compared with the pre-implementation period (rate = 257 per 100,000 person-years) was 0.59 (CI = 0.49--0.70). In contrast, RRs for the area of Pueblo County outside the city of Pueblo limits and for El Paso County for the same period were 1.03 (CI = 0.68--1.39) and 0.95 (CI = 0.87--1.03), respectively; the pre-implementation period rates were 135 per 100,000 person-years and 157 per 100,000 person-years, respectively. Within each site, the distribution of AMI patients by age and sex was unchanged over time.

To further examine whether the change in AMI rates could be attributed to pre-existing secular trends, AMI rates were examined for all three sites for three 18-month periods immediately preceding the pre-implementation phase. No statistically significant secular trend occurred in any of the three sites before July 1, 2003.

To ensure that the observed change in the city of Pueblo was not attributable to undercounting fatal AMIs post-implementation, the number of AMI deaths for the city of Pueblo were obtained from the Health Statistics Section of the Colorado Department of Public Health and Environment. After accounting for AMI deaths in a conservative manner (by assuming that all fatal AMIs occurred in patients who failed to reach the hospital) and adding these numbers to the hospital AMI admission data, the RR for the city of Pueblo remained statistically significant at 0.82 (CI = 0.64--0.97) from the Phase II to Phase I post-implementation periods and at 0.66 (CI = 0.55--0.77) from Phase II post-implementation to the pre-implementation period.

Reported by: *RN Alsever, MD, Parkview Medical Center; WM Thomas, PhD, St. Mary-Corwin Medical Center; C Nevin-Woods, DO, R Beauvais, S Dennison, R Bueno, Pueblo City-County Health Dept; L Chang, PhD, Colorado State Univ-Pueblo; CE Bartecchi, MD, Univ of Colorado School of Medicine. S Babb, MPH, A Trosclair, MS, M Engstrom, MS, T Pechacek, PhD, R Kaufmann, PhD, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

Editorial Note:

Evidence from animal and human studies indicates that SHS exposure can produce rapid adverse effects on the functioning of the heart, blood, and vascular systems that increase the risk for a cardiac event (*1*). Relevant mechanisms include effects on platelet function, endothelial function, and inflammation. Epidemiologic and laboratory data indicate that the risk for heart disease and AMI increase rapidly with relatively small doses of tobacco smoke, such as those received from SHS, and then continue to increase more slowly with larger doses (*1,8,9*). Evidence also suggests that the acute effects of SHS exposure might be rapidly reversible (*8,9*).

Eliminating smoking in indoor spaces is the only way to fully protect nonsmokers from SHS (*1*). Previous studies have found that SHS exposure decreases substantially among nonsmoking employees of restaurants and bars and among nonsmoking adults in the general public after implementation of smoke-free laws

(*1,5,7,10*). Compliance with smoke-free laws typically reaches high levels rapidly and then increases further over time (*1,5*). In addition, smoke-free laws are associated with increased adoption of no-smoking rules in private homes (*1,10*). Smoke-free policies have been found to prompt some smokers to quit smoking (*1*); because active smoking is a major risk factor for heart disease and AMI, this effect also would be expected to reduce heart disease and AMI rates at a population level. The continued decrease in AMI hospitalizations observed in this study might be a result of a combination of 1) the immediate reduction in SHS exposure among nonsmokers that occurred when the city of Pueblo smoke-free ordinance was implemented, 2) further reductions in this exposure that occurred because of increased compliance with the ordinance and increased adoption of smoke-free home rules over time, and 3) increased quitting among smokers as a result of the ordinance and associated changes in social norms.

In addition to the previous study conducted in the city of Pueblo (*3*), eight other published studies have reported that smoke-free laws were associated with rapid, sizeable reductions in hospitalizations for AMI (*2,4--7*). The current study adds to the previous evidence by documenting this effect in a relatively large population and by demonstrating that the effect was sustained over an extended period. A meta-analysis of seven of the previous eight studies and one unpublished study yielded a pooled estimate of a 19% (CI = 14%--24%) reduction in AMI hospitalization rates after implementation of smoke-free laws (*2*). Three studies have suggested that these reductions are more pronounced among nonsmokers than among smokers (*4,6,7*). For example, one study that included objective confirmation of patients' smoking status reported reductions of 21%, 19%, and 14% in the number of hospitalizations for acute coronary syndrome among never smokers, former smokers, and current smokers, respectively, in the year after implementation of a comprehensive national smoke-free law, with the decrease in hospitalizations among nonsmokers accounting for 67% of the total decrease (*7*).

The findings in this report are subject to at least four limitations. First, because no data were available on whether study subjects were nonsmokers or smokers, determining what portion of the observed decrease in hospitalizations was attributable to reduced SHS exposure among nonsmokers and what portion was attributable to increased quitting among smokers was not possible. The prevalence of smoking decreased in Pueblo County as a whole, but the difference over time was not statistically significant. Second, the study did not directly document reductions in SHS exposure among nonsmokers after the city of Pueblo smoke-free law took effect, although studies elsewhere have reported such reductions (*1,5,7,10*). Third, individual residences were assigned based on postal codes, which might have resulted in a small amount of misclassification (*3*); however, misclassifying residents' exposure to the city of Pueblo smoke-free ordinance would result in underestimating the effect of this ordinance. In addition, residents of the area of Pueblo County outside the city of Pueblo limits might work in workplaces or patronize restaurants or bars in the city of Pueblo, or vice versa; again, this would bias findings toward the null. Finally, the ecologic nature of this study precludes definite conclusions about the extent to which the observed decline in AMI hospitalizations in the city of Pueblo was attributable to the smoke-free ordinance. To the extent that any unmeasured factors influenced rates, the findings described in this report might overestimate or underestimate the actual effect. AMI hospitalization rates initially were substantially higher in the city of Pueblo than in the two comparison areas, suggesting that these areas might not be fully comparable to the intervention site because of demographic and other differences. However, no significant changes in the manner in which AMI patients were diagnosed, treated, or transported occurred in the three study sites during the study period. Future studies could further expand the evidence base by including information on the smoking status of AMI patients and biomarkers (e.g., cotinine and troponin) for objective measurement of SHS exposure and case ascertainment, as was done in one recent study (*7*).

The Phase I study findings suggested that the city of Pueblo's smoke-free ordinance led to a rapid decrease in AMI hospitalizations. The findings described in this report suggest that the initial decrease in AMI hospitalizations observed immediately after the implementation of comprehensive smoke-free laws continued over time. These findings provide support for considering smoke-free policies an important component of interventions to prevent heart disease morbidity and mortality.

Acknowledgments

This report is based, in part, on contributions by MJ Krantz, MD, B Bucher Bartelson, PhD, and RO Estacio, MD, Colorado Prevention Center, Denver, Colorado.

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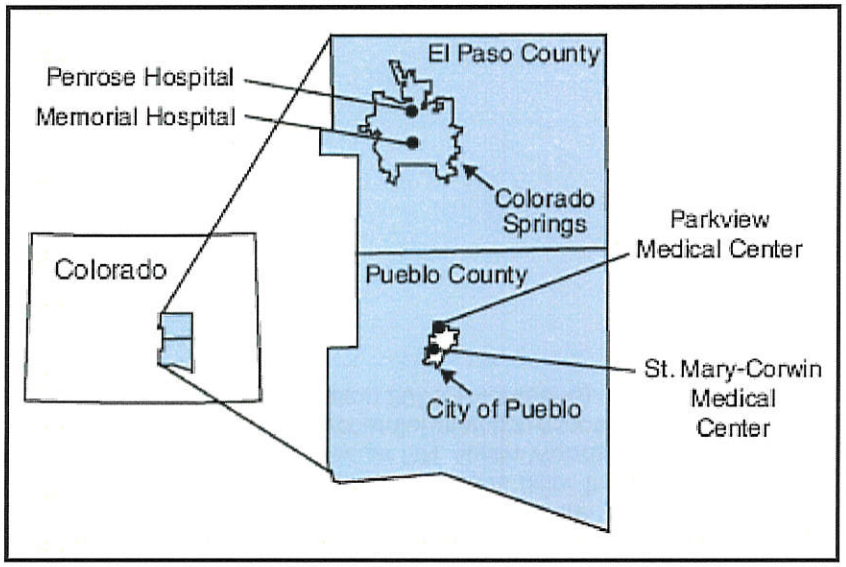
* Some of the AMI hospitalization admission figures, AMI hospitalization admission rates, relative rates, and relative rate confidence intervals calculated for this analysis differ from those previously published (*3*) because of receipt of routinely amended coding data from the Colorado Hospital Association.

Figure 1

FIGURE 1. Pueblo smoke-free area, comparison areas, and hospitals treating acute myocardial infarction patients — Pueblo Heart Study, January 2002–June 2006



Return to top.

Figure 2

TABLE. Number and rate* of hospitalizations for acute myocardial infarction (AMI) before and after smoking ordinance, by sex and area — city of Pueblo, Pueblo County outside city of Pueblo limits, and El Paso County, Pueblo Heart Study, January 2002–June 2006†

	Pre-implementation period§		Phase I post-implementation period¶		Phase II post-implementation period**		Relative rate (RR) for AMI (Phase I vs. pre-implementation)	Relative rate for AMI (Phase II vs. Phase I)	Relative rate for AMI (Phase II vs. pre-implementation)
Area	No.	Rate	No.	Rate	No.	Rate	RR (95% CI††)	RR (95% CI)	RR (95% CI)
City of Pueblo (intervention area)									
Male	233	150	175	113	157	101	0.75 (0.61–0.90)	0.90 (0.69–1.10)	0.67 (0.52–0.82)
Female	166	107	116	75	80	51	0.70 (0.53–0.87)	0.69 (0.51–0.87)	0.48 (0.36–0.60)
Total	399	257	291	187	237	152	0.73 (0.64–0.82)	0.81 (0.67–0.96)	0.59 (0.49–0.70)
Pueblo County outside city of Pueblo limits (comparison area)									
Male	55	83	55	83	63	95	1.00 (0.58–1.42)	1.15 (0.64–1.65)	1.15 (0.59–1.70)
Female	34	51	21	32	29	44	0.62 (0.28–0.95)	1.38 (0.70–2.06)	0.85 (0.38–1.32)
Total	89	135	76	115	92	139	0.85 (0.56–1.14)	1.21 (0.80–1.62)	1.03 (0.68–1.39)
El Paso County (comparison area)									
Male	872	106	849	103	815	99	0.97 (0.87–1.08)	0.96 (0.84–1.08)	0.93 (0.84–1.03)
Female	427	52	392	47	415	50	0.92 (0.78–1.05)	1.06 (0.90–1.21)	0.97 (0.84–1.10)
Total	1,299	157	1,241	150	1,230	149	0.96 (0.87–1.04)	0.99 (0.91–1.08)	0.95 (0.87–1.03)

* Per 100,000 person-years. Based on U.S. Census Bureau population data for 2006.
† Because of receipt of routinely amended coding data from the Colorado Hospital Association, certain data points for the pre-implementation and Phase I post-implementation periods differ from those published previously (Bartecchi C, Alsever RN, Nevin-Woods C, et al. Reduction in the incidence of acute myocardial infarction associated with a citywide smoking ordinance. Circulation 2006;114:1490–6).
§ January 2002–June 2003.
¶ July 2003–December 2004.
** January 2005–June 2006.
†† Confidence interval.

Return to top.

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To: Senate Committee on Public Health and Welfare

From: Dan Morin
Director of Government Affairs

Subject: SB 25 An Act concerning crimes and punishments; relating to smoking

Date: January 27, 2009

The Kansas Medical Society appreciates the opportunity to appear in support of SB 25, An act concerning crimes and punishments; relating to smoking. The Kansas Medical Society has historically supported public policies at the local, state and federal levels that protect all people from the harmful effects of tobacco smoke.

Given the state's budget woes and subsequent efforts to now find savings in state health care costs, it would seem appropriate to consider the economic benefits of a statewide smoke-free workplace policy. Government can play a significant role in lowering health care costs and can do so by protecting all Kansas residents — including workers in restaurants and bars — from the dangers of secondhand smoke. Comprehensive clean-air public policy will promote a smoke-free work environment within which business owners can seemingly eliminate a variety of associated costs, including higher health, life, and fire insurance premiums; higher worker absenteeism; lower work productivity; and higher workers' compensation payments. The Kansas Health Policy Authority cites a figure of a 40,000 fewer smokers in Kansas (10% reduction), while KDHE estimates 2,160 fewer heart attacks and a $21 million decrease in hospital charges from heart attacks alone. Cigarette smoking accounts for at least 30% of all cancer deaths.

As an organization composed of members who see the results that tobacco use has on people's health every day we recognize tobacco use is contrary to the mission of promoting and protecting health. It is well documented that tobacco use and health are incompatible and many patients are seen by Kansas physicians for illnesses caused or exacerbated by tobacco use. Any person observing the adverse effects that lung cancer, emphysema, and oral cancer from chewing tobacco can have on the lives of loved ones can surely empathize with those wanting to eliminate such diseases.

According to the Centers for Disease Control and Prevention (CDC), the number of adult cigarette smokers in the U.S. during 2007 had declined for the first time in 4 years prior. Adult tobacco user prevalence was under 20 percent for the first time since tobacco use

rates began to fall during the mid-1960s. We believe these encouraging numbers come as a result of successful education programs and the enactment of smoking laws and regulations. More than 30 states have passed smoking bans. The Kansas Medical Society urges members of this committee to favorably pass out SB 25.

There is widespread support for this action from the medical community and the public based on strong evidence of the dangers of passive smoking. We can save billions of dollars on a public health policy that costs virtually nothing to implement. KDHE indicates that the passage of SB 25 would have no fiscal effect on its operations and does not believe enforcement of the bill would have a discernable fiscal effect on local law enforcement.

Thank you for the opportunity to offer these comments supporting standards to ensure a safe and healthy environment.

Re: SB 25 Written Submission for the
Senate Public Health and Welfare Committee Hearing
on January 27, 2009

Dear Legislators,

One of the essential functions of public health is to protect people from health problems and health hazards. We would like to address some of the comments that opponents to SB 25 are likely to make.

First, the issue of personal rights versus public health is usually brought up. The proposed law does not mandate that smokers quit smoking. They have a right to continue to smoke if they choose. However, they do not have a right to contaminate the air where other people are present.

It is the non-smoker's right to be able to enter into any public area – just like it is the right of a disabled person to be able to have access to any public facility. All public facilities are required by the Americans with Disabilities Act to adapt their facilities to meet the needs of the public. Business owners do not have a choice whether they should or should not comply with this law. Restaurant owners are required to follow safe food handling practices, to protect the health of the public. They do not have an option. Child care facilities and child care homes must meet certain minimum guidelines and health standards in order to provide safe care for children. They do not have an option to choose whether they want to comply. Citizens and businesses are not allowed to dump raw sewage or other contaminants into the public water supply. There are rules governing that because it is a public health hazard. During the pit bull ban discussions in Salina, the commissioners had to consider the rights of the individual versus the protection of the public, and decided in favor of the public. Just look around you, and you will see people who have been harmed by secondhand smoke. You won't see the 3,000 people killed by secondhand smoke every year in the U.S.

Second, comments will be made that if this law is passed; bars, bingo halls, etc. will have to close. Common sense tells us that people who patronize these establishments will continue to go and will simply step outside when they need a cigarette. Perhaps these bars will see an increase in patronage because non-smokers will feel comfortable in visiting these establishments. Studies published in peer reviewed medical journals have not demonstrated a decrease in business due to clean indoor air laws.

Third, challenges will be made about the science behind the real effects of second-hand smoke. There is no safe level of exposure. Health may even be compromised within thirty minutes of exposure. The body of evidence to support this is overwhelming. Studies done in other cities (including Helena, Montana and Pueblo, Colorado) have demonstrated a significant reduction in heart attack rates since their clean air ordinances went into effect. Information concerning health effects is available on the Center for

Disease Control website. www.cdc.gov/tobacco There is new evidence to show that third hand exposure may also be harmful (from old lingering smoke on clothing, furniture etc.).

Sadly, many of our brave military veterans became addicted to tobacco during their service time, and are in poor health. They are often unable to enjoy socializing at veteran's organizations because of the exposure and effect of second-hand smoke on their health conditions.

Kansas was one of the first states to implement public health measures to protect the health of its citizens, and is generally viewed as a healthy place to raise a family. Children who live in communities with strict smoking ordinances are 40% less likely to start smoking. Your vote today has the potential to save lives.

Thank you.

Yvonne Gibbons RN, BSN, MPH Director, Salina-Saline County Health Dept.
Del Myers RN, BSN, MS Health Educator, Salina-Saline County Health Dept.

42-2

Asthma, Allergy and Rheumatology Associates P.A.

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Ronald E. Weiner, M.D.
John D. Martinez, M.D.
Warren E. Frick, M.D.

Practice Limited To
Asthma, Allergy and Rheumatology
By Appointment Only

January 22, 2009

Re. Senate Bill 25

Research over the past 20 years has repeatedly demonstrated that any amount of exposure to second hand smoke is harmful.

Children and anyone with respiratory problems such as asthma are acutely bothered by even brief exposures to tobacco smoke and all of us are harmed overtime.

Ronald E. Weiner MD

Asthma Allergy Rheumatology Assoc. P.A.
Clinical Assistant Professor of Pediatrics, University of Ks. School of Medicine
Past President of American Lung Association of Kansas

Public Health and Welfare
Date: 01/27/09
Attachment: 43

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To: The Honorable Jim Barnett, Chair
The Honorable Vicki Schmidt, Vice Chair
The Honorable David Haley, Ranking Minority
The Honorable Mary Pilcher-Cook
The Honorable Laura Kelly
The Honorable Pete Brungardt
The Honorable Dick Kelsey
The Honorable Jeff Colyer
The Honorable David Wysong

Thank you, Mr. Chairman and the committee for the opportunity to provide written testimony in support of SB 25. KPHA represents approximately 800 individuals from over 160 organizations and over 50 health professions. The members of KPHA are grateful that the Senate is considering this statewide move to ban smoking which will result in the reduction of Kansans' exposure to second-hand smoke. **We request, that if local governments, cities/counties have passed stronger smoking bans, that those ordinances are grandfathered. And, if local governments desire to adopt more stringent ordinances in the future than what is passed in this legislation, they are allowed to use "home rule" protection in their deliberations and efforts without preemption by the state law.**

Every single person you each know can undoubtedly think of a friend who can barely walk to his mailbox because he can't breath; or has visited a family member in the hospital with a heart problem, pneumonia, or stroke caused by tobacco; or has seen a young person smoking and thought *if only*. *If only* they had stopped smoking earlier. *If only* they had never started smoking! And, if this person is ill because of second hand smoke, we believe this act if it had been law, long ago, this person would have been spared these ailments and even premature death. The Surgeon General established that environmental tobacco smoke is classified as a "Class A" Carcinogen. People who do not choose to smoke should never be exposed to it in public places.

Protecting Kansans from second hand smoke will not harm our small businesses, according to a peer-reviewed research study on the impact of smoke-free ordinances in over 81 communities in 6 states. The sales tax data from these communities consistently demonstrate that ordinances restricting smoking in restaurants have no effect on revenues. The restaurant business is a tough one, and many businesses claim that these ordinances have hurt their sales. These claims are made in virtually every community and state that has adopted smoke-free ordinances. And yet, when objective data become available a year or two later, they turn out to be wrong.

Based on the health impact of clean indoor air policies at the local level in Kansas, a statewide ban may result in 2,160 fewer heart attacks and $21 million in associated hospital charges for heart attacks alone. The state needs to implement what the majority of Kansas employers already practice by instituting a similar policy and acknowledging the importance of health in the workplace.

According to the fiscal note, municipalities have found that enforcement of similar laws at the local level are not an overwhelming task, and KDHE does not believe enforcement of the bill would have a discernable fiscal effect on local law enforcement. Existing partnerships would be utilized by KDHE and tobacco use prevention advocates, including KPHA, to support public education promoting compliance to the law.

Please listen to the overwhelming majority of Kansans who want to live in and breathe freely in a smoke free society, at least in public places. We strongly urge you to pass SB 25 favorably.

Public Health and Welfare
Date: 01/27/09
Attachment: 44

Kansas P[illegible]ic Health Association, Inc[illegible]009 Board

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44-2