

Relationship between Cigarette Taxes, Environmental Policy, and Smoking Prevalence



Prepared for the Wyoming Department of Health, Mental Health
and Substance Abuse and Services Division

by
The Wyoming Survey & Analysis Center
at the
University of Wyoming



July 2008
CHES-819

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The Dangers of Smoking and Exposure to Secondhand Smoke

Tobacco use is the #1 leading cause of preventable death in the world and in the United States (Centers for Disease Control and Prevention [CDC], 2007). The U.S. Surgeon General (U.S. Department of Health and Human Services [USDHHS], 2004), has concluded that tobacco use and exposure to secondhand smoke are causally linked to many diseases in children and adults such as respiratory diseases, cancers, and cardiovascular diseases. In *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, the U.S. Surgeon General further indicates that there are no health benefits to smoking (USDHHS, 2006). Organizations such as the World Health Organization (WHO) and the USDHSS have directed attention at reducing tobacco use and non-smoker exposure to tobacco smoke, indicating that smoking is a major public health issue across the world and in the United States (USDHHS 2004, 2006; WHO, 2007).

In 2007, 20% of adults in the United States identified themselves as current smokers (Behavioral Risk Factor Surveillance System [BRFSS], 2007). In Wyoming, 22% of adults are current smokers (BRFSS, 2007). Despite laws restricting the sale of tobacco products to minors, 20% of high school students in the U.S. and 21% of high school students in Wyoming are current smokers (CDC, 2008). In 2004 alone, the United States lost \$98 billion in productivity and \$97 billion in healthcare costs as the result of tobacco use. In the same year, these figures for Wyoming were \$155 million in productivity and \$136 million in healthcare costs (CDC, 2006). In addition, Wyoming's direct Medicaid costs totaled \$37 million (CDC, 2006) and Wyoming residents' state & federal tax burden from smoking-caused government expenditures was \$581 per household (Campaign for Tobacco-free Kids [CTFK], n.d.). In 2004, there were an estimated 89,000 smokers in Wyoming (CDC, 2006). Consequently, for every smoker who quit smoking, on average, Wyoming would save \$1528 in healthcare costs¹.

Secondhand smoke exposure is an alarming public health hazard as well. According to the U. S. Surgeon General, there is no safe level of exposure to secondhand smoke; approximately 60% of nonsmokers in the United States show biological evidence of exposure to secondhand smoke (USDHHS, 2006). The Surgeon General has also linked secondhand smoke to a variety of diseases including bronchitis, pneumonia, and other respiratory diseases in children, and coronary heart disease, respiratory distress, and lung cancer in adults (USDHHS, 2006).

Addressing Smoking and Exposure to Secondhand Smoke

The CDC (2007) reports, "research has documented the effectiveness of laws and policies in a comprehensive tobacco control effort to protect the public from secondhand smoke exposure, promote cessation, and prevent initiation, including increasing the unit price of tobacco products and implementing smoking bans through policies, regulations, and laws..." (p. 7). The CDC (2007) endorses actions, based on evidence of effectiveness documented in the scientific literature, to create clean indoor air legislation and to increase tobacco product excise taxes to support population-based tobacco prevention and control efforts.

¹ \$136 million in health care costs/89,000 smokers = \$1528

Smokefree environment legislation

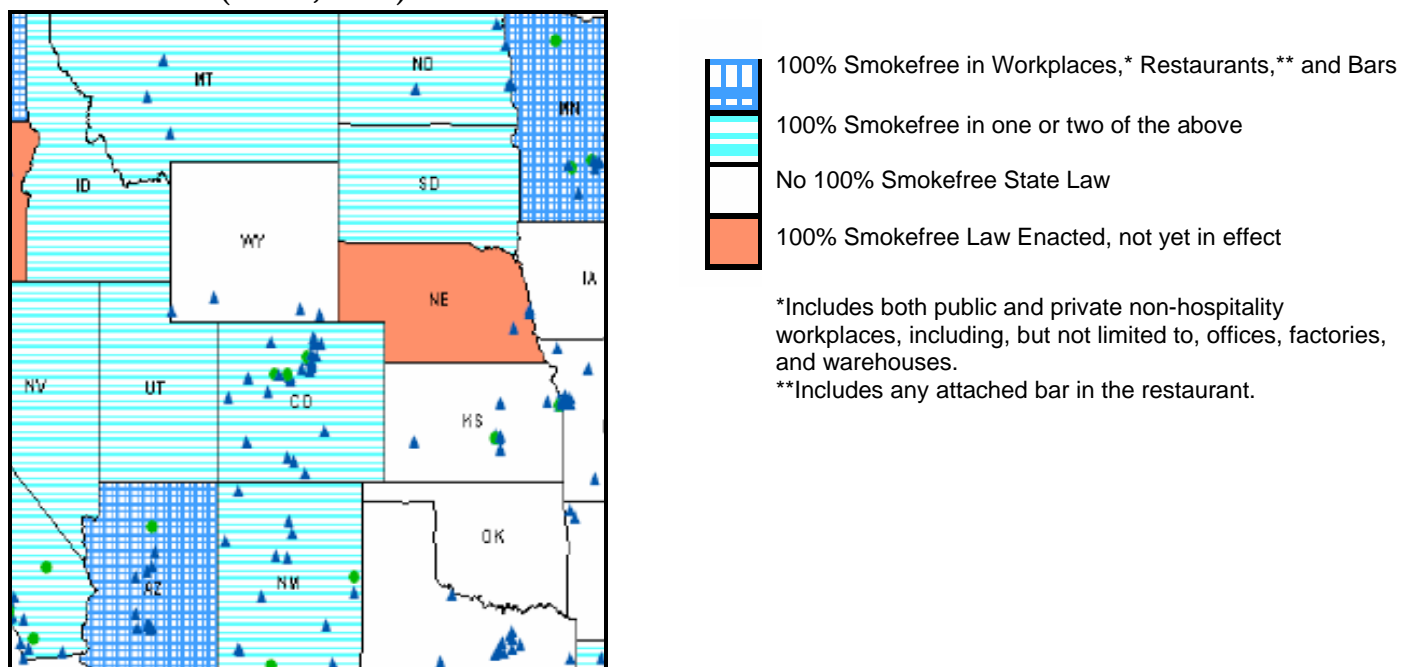
To reduce the public health threat of secondhand smoke, laws to establish and protect smokefree environments are becoming common across the United States (see Table 1).

Table 1. Population Protected by Smokefree Laws (ANRF, 2008d)

Smokefree Law Pertains to	Population Protected	Percent of U.S. Population
Workplaces	139,862,437	49.7%
Restaurants	176,128,751	62.6%
Bars	142,373,771	50.6%
Workplaces and/or Restaurants and/or Bars	183,101,039	65.1%

Nationwide, 65% of the U.S. population is protected by 100% smokefree state or local laws (American Nonsmokers' Rights Foundation [ANRF], 2008b) compared to only 9% of Wyoming's population (ANRF, 2008b). As of July 2008, 13 states, Puerto Rico, and the District of Columbia require workplaces, restaurants, *and* bars to be smokefree. (ANRF, 2008a). Nationwide, 36 of the 50 states, and the District of Columbia, have laws enforcing smokefree workplaces and/or bars and/or restaurants (ANRF, 2008a). Further, 2,883 U.S. cities have local restrictions regarding places where smoking is allowed (ANRF, 2008a). Each state bordering Wyoming has enacted statewide laws supporting smokefree workplaces and/or bars and/or restaurants (ANRF, 2008e). *Wyoming is the only western state that has not passed such a law (Figure 1).*

Figure 1. Wyoming Bordering States 100% Smokefree Laws (ANRF, 2008e)²



In addition to the ever-growing number of smokefree laws in the United States, since 2002, 44 states, the District of Columbia and several U.S. territories have increased their cigarette tax rates, combined, 80 times (CTFK, 2008d). In June 2008, New York raised its cigarette taxes to \$2.75, the highest in the nation, increasing the price of a pack of cigarettes to about \$6, and to more than \$8 in New York City ("New York's

² A map of smokefree laws in the United States is included in Appendix A.

Cigarette Tax,” 2008). Wyoming’s cigarette excise tax is \$0.60, ranking it 38th in the United States (CTFK, 2008b).

Enacting smokefree ordinances and increasing cigarette taxes are associated with an increase in smoking cessation and a reduction in smoking prevalence and consumption. Smokers working in communities with strong³ ordinances were 38% more likely to quit smoking than smokers in communities with no ordinance (Moskowitz, Lin, and Hudes, 2000). Smokefree workplaces were associated with between a 4% and 6% decline in smoking prevalence (Fichtenberg, and Glantz, 2002; Evans, Farrelly, & Montgomery, 1996) and continuing smokers were found to smoke 3.1 fewer cigarettes per day (Fichtenberg and Glantz, 2002). For adolescents, those who worked in a smokefree workplace were 32% less likely to smoke than adolescents who worked in a workplace with no smoking restrictions (Farkas, Gilpin, White, and Pierce, 2000). Teens in towns with smokefree ordinances in restaurants were 40% less likely to become smokers than their peers in towns with no, or only partial, smoking restrictions (“Towns See Decline,” 2008).

A study by Sargent, Shepart, and Glantz (2004) examined the impact of a smokefree ordinance on acute myocardial infarction, or heart attack, hospital admissions. The study compared hospital admissions for acute myocardial infarction in patients from Helena, Montana, which had a smokefree law covering public places and workplaces with the hospital admissions for patients from the area surrounding Helena, which did not have a smokefree law. During the six months Helena’s smokefree law was in effect (June-November 2002), admission rates fell for residents living in Helena, but not for residents living outside of Helena. These results suggest that a smokefree law protects citizens from the long-term dangers of secondhand smoke and rapidly decreases the number of heart attacks. In addition, after a review of the literature published since 1995, Barnoya and Glantz (2005) found that secondhand smoke increases the risk of coronary heart disease by approximately 30%. Barnoya and Glantz (2005) compared the effects of secondhand smoke with the effects of smoking and found “the effects of secondhand smoke are, on average, 80% to 90% as large as those from active smoking” (p. 2694).

Smokefree policies do not have an adverse net economic impact on the hospitality industry. Scollo and Lal (2005) reviewed all 123 English-language economic impact studies published through July 2005. Scollo and Lal concluded, all 21 legitimate⁴ studies concluded no negative net economic impact from smokefree ordinances covering bars or restaurants and “just a few studies using objective measures found negative effects. Each of these is methodologically flawed” (p. 3).

Increased tobacco excise taxes

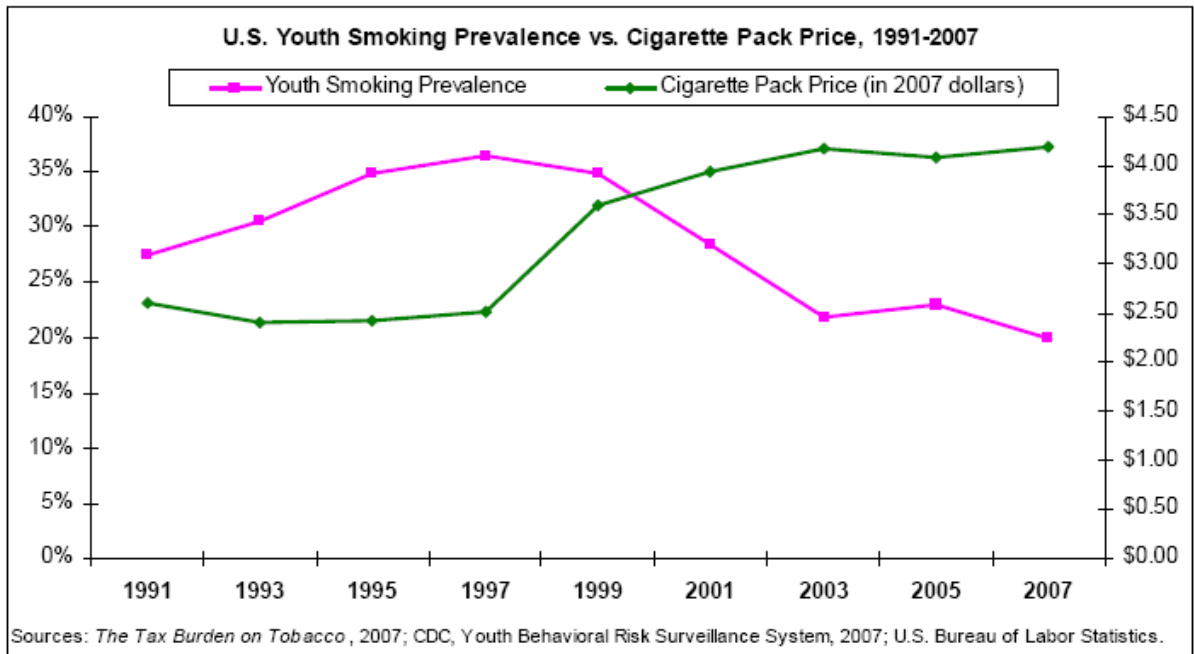
A 1993 National Cancer Institute Expert Panel found that “a substantial increase in tobacco excise taxes may be the single most effective measure for decreasing tobacco consumption,” (CTFK, 2008b). In fact, cigarette pack sales have declined in states that have significantly raised cigarette tax rates and tax increases have prompted many smokers to quit or cutback (CTFK, 2008b). In Montana, smoker calls to the state smoking quitlines rapidly increased after the state cigarette tax increased from \$0.70 to \$1.70 in 2005 (CTFK, 2008b). In Washington, adult smoking declined from 22.6 to 19.7 percent after its 60-cent cigarette tax increase in 2002 (CTFK, 2008b). Every 10% increase in the real price of cigarettes reduces overall cigarette consumption by approximately 3% to 5%, reduces the number of young-adult smokers by 3.5%, and reduces the number of smokers under the age of 18 by approximately 7% (Chaloupka, 1999).

³ Applicable to all businesses with four or more employees, preference for nonsmokers’ concerns if they conflict with those of smokers, the ability of individual employees to designate their area smokefree, and prohibitions against smoking in hallways, restrooms, and meetings rooms

⁴ A legitimate study must meet the following criteria: (1) use objective, rather than subjective, outcome measures, such as taxable sales receipts, (2) use all available data after the ordinance’s implementation and for several years before, (3) use regression or other statistical methods to draw inferences, and (4) include controls for overall economic conditions.

In the 1999 report, *Curbing The Epidemic: Governments and the Economics of Tobacco Control*, the World Bank carefully evaluated existing research and data, worldwide, and concluded that “raising taxes does significantly reduce the consumption of tobacco. Importantly, the impact of higher taxes is likely to be greatest on young people, who are more responsive to price rises than older people.” As seen in Figure 2, as cigarette prices increased in the late 1990s and early 21st century, youth smoking rates decreased. Then, as cigarette prices dropped between 2003 and 2005, youth smoking rates increased. Then, when cigarettes slightly increased in price between 2005 and 2007, youth smoking rates, again, declined.

Figure 2. U.S. Youth Smoking Prevalence vs. Cigarette Pack Price, 1991 – 2007 (CTFK, 2008b)



Combined impact of smokefree environment legislation and high tobacco excise taxes

Table 2 (next page) shows adult smoking rates, youth smoking rates, cigarette tax rates, and state statutes prohibiting smoking for Wyoming and for the ten states with the lowest and ten states with the highest adult smoking rates. As seen in Table 2, states with higher cigarette taxes (per pack) and more smokefree environments tend to have lower adult and youth smoking rates.

Table 2. Smoking Rates, Cigarette Taxes, and Smokefree Ordinances (ANRF, 2008c; CTFK, 2008c; CTFK, 2008d)

State	Adult Smoking Rate	Youth Smoking Rate	Excise tax per pack (year of last change)	State statutes prohibit smoking in
Lowest Adult Smoking Rates				
1 Utah	11.7	7.9	\$0.695 (2002)	Workplaces and restaurants
2 California	14.3	15.4	\$0.87 (1999)	Restaurants and bars
3 Connecticut	15.4	21.1	\$2.00 (2007)	Restaurants and bars
4 Massachusetts	16.4	17.7	\$1.51 (2002)	Workplaces, restaurants, and bars
5 Minnesota	16.5	22.4	\$1.493 (2005)	Workplaces, restaurants, and bars
6 Washington	16.8	15.0	\$2.025 (2005)	Workplaces, restaurants, and bars
7 Oregon	16.9	17.0	\$1.18 (2004)	Workplaces, restaurants, and bars beginning January 1, 2009
8 Hawaii	17	12.8	\$2.00 (2008)	Workplaces, restaurants, and bars
8 Rhode Island	17	15.1	\$2.46 (2004)	Workplaces, restaurants, and bars
9 Maryland	17.1	16.8	\$2.00 (2008)	Workplaces, restaurants, and bars
9 New Jersey	17.1	15.8	\$2.575 (2006)	Workplaces, restaurants, and bars
Mean	16.0	16.1	\$1.69	
38 Wyoming	22.1	20.8	\$0.60 (2003)	No state statute
Highest Adult Smoking Rates				
42 Louisiana	22.6	25.0	\$0.36 (2002)	Workplaces and restaurants
43 North Carolina	22.9	22.5	\$0.35 (2006)	No state statute
44 Ohio	23.1	21.6	\$1.25 (2005)	Workplaces, restaurants, and bars
45 Mississippi	23.9	19.2	\$0.18 (1985)	No state statute
46 Indiana	24.1	22.5	\$0.995 (2007)	No state statute
47 Tennessee	24.3	25.5	\$0.62 (2007)	No state statute
48 Missouri	24.5	23.8	\$0.17 (1993)	No state statute
49 Oklahoma	25.8	23.2	\$1.03 (2005)	No state statute
50 West Virginia	26.9	27.6	\$0.55 (2003)	No state statute
51 Kentucky	28.2	26.0	\$0.30 (2005)	No state statute
Mean	24.6	23.2	\$0.58	No state statute

Conclusions

High-quality research findings from a variety of methods, researchers, and locations have consistently demonstrated negative health consequences of smoking and exposure to secondhand smoke. Further, two of the most effective tools accessible to local and state governments to combat this public health threat are high cigarette excise taxes and strong smokefree environment laws. Whether used alone or together, each of these policies is associated with reduced smoking among youth and adults as well as with increases in cessation attempts and successes. These policies are associated, further, with reductions in lost productivity and healthcare costs. Neither policy has been linked to negative economic consequences. Ultimately, enacting a cigarette excise tax increase and/or a statewide smoking law could improve the health and increase the life expectancy of Wyoming citizens by reducing the prevalence of the leading cause of preventable death.

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Appendix A

United States 100% Smokefree Laws

American Nonsmokers' Rights Foundation

As of July 1, 2008

