Colorado’s 2005 Tobacco Tax Increase, Cigarette Consumption, and Tax Revenues

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**Introduction**
In November, 2004, Colorado voters approved an increase in the state excise tax, from $0.20 to $0.84 per pack of 20 cigarettes, and from 20% to 40% of the manufacturer's listed wholesale price on other tobacco products. The Centers for Disease Control and Prevention (CDC) recommends tax increases as an effective policy to reduce tobacco use. States can also use increased excise tax revenues to fund tobacco prevention programs. This report examines the effect of Colorado’s recent tax increase on consumption of cigarettes and generation of tax revenues.

In general, increasing the price of cigarettes has been shown to reduce overall consumption, by encouraging smokers to quit or to reduce the amount smoked, and by dissuading young people from starting to smoke. Price increases are among the most effective strategies to reduce smoking. A CDC review estimates that a 10% increase in cigarette price reduces the adult smoking rate by about 4%, and reduces the smoking rate among children and adolescents by about 7% (1,2). As price goes down, cigarette sales rise, and as price goes up, sales decrease (figure 1).

The tobacco industry has long recognized the effect of price on consumption. In 1985, a tobacco industry executive stated, “Of all the concerns, there is one – taxation – that alarms us the most. While marketing restrictions and public and passive smoking do depress volume, in our experience taxation depresses it much more severely. Our concern for taxation is, therefore, central to our thinking about smoking and health. It has historically been the area to which we have devoted most resources ... .” (3).

![Figure 1. Cigarette Sales and Prices, US, 1970-2005](image)

Source: Chaloupka and ImpacTeen
Figure 2 shows the protective effect of cigarette prices on youth smoking rates. The trend line of prices vs. youth smoking across the 50 states shows that price may account for as much as 26% of the difference in youth smoking rates ($p<0.0001$).

![Figure 2. State Smoking Rates among 12- to 17-year-olds and the Price of Cigarettes (2002-03)](image)

Sources: 2002-03 National Survey on Drug Use and Health; Tax Burden on Tobacco; compiled by Gary Giovino, RPCI

Tobacco tax increases also generate revenues, even while smoking declines. Since 2000, 37 states have raised the excise tax on cigarettes, some of them more than once. Hawaii, New Jersey and Rhode Island have raised the cigarette tax three times (4). Figure 3 shows cigarette tax rates for the 50 states, ranging from 7¢ per pack in South Carolina to $2.46 per pack in Rhode Island.

![Figure 3. State Cigarette Excise Taxes September 2005 (amounts in dollars)](image)

Source: American Lung Association, September 2005

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1 The expression “$p=0.0001$” means there’s only a one in 10,000 chance the price-smoking link is a statistical accident rather than a real effect.
Adjusted for inflation, the average U.S. cigarette tax is lower today than the peak level reached in 1973 (figure 4). Even so, cigarette tax revenues have outpaced the tax rate since 1982.

### Figure 4. Average Cigarette Taxes and Total Tax Revenues
(January 2006 dollars)

[Graph showing average cigarette taxes and total tax revenues from 1955 to 2003.]

Source: Chaloupka and ImpacTeen

**Colorado Tobacco Taxes, Consumption, and Revenues**

In 2004, Colorado’s cigarette excise tax was unchanged for 18 years and, at 20¢ per pack, was one of the lowest in the nation. In November 2004, 61% of Colorado voters approved Amendment 35, which raised the tax on a pack of cigarettes by $0.64 (from $0.20 to $0.84) and on other tobacco products to 40% of wholesale price. The new rate was set at an average of the rates in neighboring states, in order to reduce cross-border shopping (table 1). Even after the increase, Colorado’s cigarette tax remains below the national average of $0.91 (5). Colorado is also the only state that does not collect sales tax on cigarettes and other tobacco products.

**Table 1. Cigarette pack taxes and retail prices in Colorado and neighboring states**

<table>
<thead>
<tr>
<th>state</th>
<th>excise tax</th>
<th>most recent tax increase</th>
<th>national rank</th>
<th>retail price with taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>$1.18</td>
<td>11/26/2002</td>
<td>16</td>
<td>$4.29</td>
</tr>
<tr>
<td>New Mexico</td>
<td>$0.91</td>
<td>7/1/2003</td>
<td>22</td>
<td>$4.18</td>
</tr>
<tr>
<td><strong>Colorado</strong></td>
<td><strong>$0.84</strong></td>
<td><strong>1/1/2005</strong></td>
<td><strong>24</strong></td>
<td><strong>$4.17</strong></td>
</tr>
<tr>
<td>Kansas</td>
<td>$0.79</td>
<td>1/1/2003</td>
<td>27</td>
<td>$4.05</td>
</tr>
<tr>
<td>Utah</td>
<td>$0.70</td>
<td>5/6/2002</td>
<td>29</td>
<td>$4.08</td>
</tr>
<tr>
<td>Nebraska</td>
<td>$0.64</td>
<td>1/1/2002</td>
<td>30</td>
<td>$3.92</td>
</tr>
<tr>
<td>Wyoming</td>
<td>$0.60</td>
<td>7/1/2003</td>
<td>31</td>
<td>$3.87</td>
</tr>
</tbody>
</table>

† Industry promotions and coupons may reduce the actual price

**Source:** Campaign for Tobacco-Free Kids
Revenues from the new Colorado tobacco tax are earmarked as follows:
- 46% for health care expansion for children, legal immigrants and pregnant women.
- 19% for the primary care fund.
- 16% for tobacco education and prevention.
- 16% for prevention, early detection and treatment fund.
- 3% to the state of Colorado for health-related purposes, contributions to the general fund, the old-age pension fund and municipal and county governments.

Colorado’s funding for tobacco prevention and education is now 110% of the CDC’s recommended level, one of the highest in the nation for fiscal year 2005-06.

**Cigarette Consumption**

Immediately before the tax increase took effect, monthly cigarette sales suggest that retailers and consumers stocked up on cigarettes (figure 5). Sales briefly declined sharply after that date. Ignoring these fluctuations, average cigarette sales were declining slightly during 2000 through 2004 but appear to be declining more rapidly since the tax increase. The trend appears similar when sales are adjusted for population changes (figure 6). All other states that have raised the cigarette excise tax report similar impacts on sales (6).

![Figure 5. Monthly Cigarette Sales† for Colorado Jan 2000-Jan 2006](image)

Source: Colorado Department of Revenue
Cigarette Tax Revenues

Total excise tax revenues increased dramatically after the Colorado tobacco tax increase took effect (figures 7 and 8). This jump in revenues has been demonstrated in every state that has raised the excise tax on tobacco (7).
Experience with tobacco tax increases in other states suggests that revenues remain greater than they were before the increase, even while tobacco sales gradually decline. In California, for example, total revenues after a 1988 tobacco tax increase were still higher a decade later than before the increase (figure 9); the state’s voters increased the tax again in 1998. During periods when the tax rate was unchanged, annual revenues decreased an average of 5% per year. When raised, revenues tripled after 1988 and doubled after 1998.
Long-Term Health Benefits

Tobacco use takes a huge toll in terms of lives and health care dollars. An estimated 4,300 Colorado residents die each year of a smoking-related illness (8). Children and infants exposed to second-hand smoke are at great risk of sudden infant death syndrome (SIDS), asthma attacks, and ear infections (9). Yet, half of Colorado middle and high school students report spending time each week in a room where cigarettes are being smoked (10). Smoking among pregnant women increases the chance of having a low-birth-weight baby (9). Yet, in 2003, one in 10 Colorado women smoked during the last 3 months of pregnancy, and one in 7 reported smoking after delivery (11). In 2005, Colorado spent an estimated $1.21 billion on health care directly attributable to smoking, and lost an estimated $946 million in productivity due to smoking related deaths and illnesses (12).

In contrast, reduced tobacco use from tobacco taxes improves population health and reduces health care costs (13). The estimated benefits to Colorado of a hypothetical 50¢ per pack increase are shown in table 2.

<table>
<thead>
<tr>
<th>Area of concern</th>
<th>Benefit</th>
</tr>
</thead>
</table>
| Colorado children alive in 2005 | • 24,300 fewer smokers  
                         | • 7,700 fewer early deaths |
| Colorado adults alive in 2005 | • 12,200 fewer smokers                      |
| Annual tax revenues | • $63.9 million increase                   |
| Heart and stroke health care | • $4.9 million saved (5 yrs)                |
| Pregnancy and birth health care | • $3.5 million saved (5 yrs)               |
| Total long-term health care savings | • $492.3 million                        |

Source: Campaign for Tobacco Free Kids

Other Considerations

Internet tobacco sales potentially offer a way to evade taxes, but the extent of the problem is unclear. Population surveys in New Jersey estimated an increase in internet tobacco sales, from 1.1% in 2000 to 6.7% in 2002 (14). A study in 2001 by Forrester Research projected that internet sales would grow to 14% of all sales by 2005 (15). States have recently begun to address the issue. In 2005, attorneys general, including Colorado's AG, launched an initiative with major credit card companies to prevent illegal internet cigarette sales through credit card transactions (16). MasterCard® requires internet tobacco merchants to register, pay a $1,000 registration fee, and provide a legal opinion that their internet tobacco sales comply with all laws (17). Visa® states that internet tobacco merchants must adhere to all laws (18). The effectiveness of these policies is not known.

Conclusions

Colorado’s tobacco tax increase has reduced cigarette sales while generating new revenues that fund healthcare for under-served populations and cancer prevention and treatment programs. Experience from other states suggests that both cigarette sales and tobacco tax revenues will decline slowly but will remain higher than before the tax increase for a decade or longer. Internet tobacco sales may evade state tobacco taxes and reduce revenues, but the extent of this problem
is unclear. In the long run, the higher tobacco tax is expected to increase the number of adult smokers who quit, reduce the number of young people who start smoking, and reduce smoking-related disease, death, and related health care costs.

References

