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A Policy Research Partnership to Reduce Youth Substance Use

# **Tobacco Taxation**

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# Tobacco industry clearly understands the impact of tobacco taxation

"With regard to taxation, it is clear that in the US, and in most countries in which we operate, tax is becoming a major threat to our existence."

"Of all the concerns, there is one - taxation - that alarms us the most. While marketing restrictions and public and passive smoking (restrictions) do depress volume, in our experience taxation depresses it much more severely. Our concern for taxation is, therefore, central to our thinking...."

Philip Morris, "Smoking and Health Initiatives", 1985

### State Cigarette Excise Taxes



Tax rates currently in effect or scheduled to take effect in 2002

# **Tobacco Taxation in Wisconsin**

- Cigarette excise tax initially adopted in 1939
  - 3 cents per pack
- Raised infrequently over time
  - Most recent increase was from 59 cents to 77 cents per pack on October 1, 2001
  - Currently 18th among state cigarette taxes
  - Just above the average tax in other non-tobacco growing/manufacturing states
  - Tax on other tobacco products: 25% of manufacturers' price
    - Slightly below the 31% of wholesale cigarette price accounted for by tax

# Tobacco Taxes and Tobacco Use

- Higher taxes induce quitting, prevent relapse, reduce consumption and prevent starting.
  - Estimates from high-income countries indicate that 10% rise in price reduces overall cigarette consumption by about 4%
    - About half of impact of price increases is on smoking prevalence; remainder is on average cigarette consumption among smokers

 Some evidence of substitution among tobacco products in response to relative price changes

Source: Chaloupka et al., 2000

#### **Total Cigarette Sales and Cigarette Prices, 1970-2002**



#### **Total Cigarette Sales and Cigarette Prices, Wisconsin, 1970-2002**



#### Per Capita Cigarette Sales and Cigarette Price, Wisconsin, 1970-2002



# Cigarette Prices and Smoking Cessation

Growing evidence that higher cigarette prices
Induce smoking cessation

 10% price increase reduces duration of smoking by about 10%

• 10% price increase raises probability of cessation attempt by 10-12%

•10% price increase raises probability of successful cessation by 1-2%

# Lower SES populations are more price responsive

- Growing international evidence shows that cigarette smoking is most price responsive in lowest income countries
- •Evidence from U.S. and U.K. shows that cigarette price increases have greatest impact on smoking among lowest income and least educated populations

 In U.S., for example, estimates indicate that smoking in households below median income level about 70% more responsive to price than those above median income level

### Implies tax increases may be progressive

Sources: Farrelly, et al., 1999; Chaloupka et al., 2000

## YOUNG PEOPLE MORE REPSONSIVE TO PRICE INCREASES

Proportion of disposable income youth spends on cigarettes likely to exceed that for adults

Peer influences much more important for young smokers than for adult smokers

Young smokers less addicted than adult smokers

Young people tend to discount the future more heavily than adults

Because kids are highly sensitive to price, and given that 90 percent of smokers start when they are 18 or younger, an increase in excise taxes is one of the best ways to achieve long run reductions in overall smoking

# **Cigarette Prices And Kids**

• A 10% increase in price reduces smoking prevalence among youth by nearly 7%

• A 10% increase in price reduces conditional demand among youth by over 6%

 Higher cigarette prices significantly reduce teens' probability of becoming daily, addicted smokers; prevent moving to later stages of uptake.

 10% price increase reduces probability of any initiation by about 3%, but reduces probability of daily smoking by nearly 9% and reduces probability of heavy daily smoking by over 10%

Sources: Chaloupka and Grossman, 1996; Tauras, et al., 2001; Ross, et al., 2001

#### **Cigarette Smoking Among Youth by the Average Price of a Pack of Cigarettes** in 50 States and the District of Columbia, 1999



### 12th Grade 30 Day Smoking Prevalence and Price



#### 12th Grade Daily Smoking Prevalence and Price



# **Tax Increases and Wisconsin**

Based on these estimate, an 85-cent per pack increase in the Wisconsin cigarette tax would:

Reduce cigarette sales by over 30.1 million packs per year

■Generate almost \$306 million in new revenues

■Lead over 41,300 current smokers to quit

■Prevent more than 62,600 youth from taking up smoking

■Prevent approximately 29,100 premature deaths caused by smoking

■Generate significant reductions in spending on health care to treat smoking attributable diseases

Impact on Revenues?

*Myth:* Government revenues will fall as cigarette taxes rise, since people buy fewer cigarettes

Truth: Cigarette tax revenues rise with cigarette tax rates, even as consumption declines

• Every significant in federal and state cigarette taxes has resulted in significant increase in revenues

#### Real Federal Cigarette Tax Rate and Tax Revenues, 1960-2001



#### Real Average State Cigarette Excise Tax Rate and Real State Cigarette Tax Revenues



#### **Real Average Cigarette Excise Tax and Real Cigarette Tax Revenues**



### Real Average State Cigarette Excise Tax Rate and Real State Cigarette Tax Revenues, Wisconsin, 1970-2001



Impact on Jobs?

Myth: Higher tobacco taxes and tobacco control generally will result in substantial job losses

Truth: Money not spent on tobacco will be spent on other goods and services, creating alternative employment

• Many countries/states will see net gains in employment as tobacco consumption falls

Impact on Tax Evasion?

*Myth: Tax evasion negates the effects of increases in tobacco taxes* 

Truth: Even in the presence of tax evasion, tax increases reduce consumption and raise revenues

- Other factors important in explaining level of tax evasion
  - Effective policies exist to deter tax evasion

Sources: Joossens, et al., 2000; Merriman, et al., 2000

• Regressivity?

*Myth:* Cigarette tax increases will negatively impact on the lowest income populations

Truth: Poor consumers are more responsive to price increases

• Should consider progressivity or regressivity of overall fiscal system

 Any negative impact can be offset by use of new tax revenues to support programs targeting lowest income population

### **NEW YORK: \$1.11 Per Pack**

Preliminary Findings on the Impact of March 2000 55-Cent Increase in Cigarette Excise Tax

Cigarette Price Increases
 NY: Marlboro- \$1.00 (30.7%); Newport - \$1.00 (31.0%)
 US: Marlboro - 33 cents (11.5%); Newport 31 cents (10.2%)

Cigarette Sales

Sales have dropped about 20 percent since the increase. Cigarette tax revenues up sharply

Youth Smoking Prevalence (NY matched schools, after 4/1; US all schools after 4/1) 8th Grade - NY: -17.8%; US: - 11.2%
10th Grade - NY: -18.9%; US: -1.0%



## **CALIFORNIA: 87-Cents Per Pack**

California's tobacco control program began in January 1989, when the excise tax was increased from \$0.10 to \$.35 per pack of cigarettes. On November 3, 1998 California voters approved Proposition 10, a measure that increased the state tax on cigarettes by 50 cents per pack starting January 1, 1999, to a total of 87 cents tax per pack. The increase made California's tax per pack of cigarettes the fourth highest amongst the states - only New York's, Hawaii's, and Alaska's taxes are greater.

#### **Initially, Consumption Decreased Rapidly**

Initially, following the 1989 excise tax increase, consumption decreased rapidly.

#### **Further Decline Throughout the 1990's**

Overall tobacco use in California declined throughout the 1990s at a rate two or three times faster than that in the rest of the country. Between 1988 and 1999, per capita cigarette use in California declined by almost 50%, while in the rest of the country it declined by only about 20%.

#### Prevalence Among Youth Declined

Between 1995 and 1999, the prevalence of cigarette use among youth dropped by 43% in California.

#### **Tobacco-Related Deaths Reduced**

By virtue of its duration and intensity, the California program also has the distinction of being the first program to demonstrate a reduction in tobacco-related deaths.

> Source: Investment in Tobacco Control: State Highlights 2001; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease prevention and health Promotion, Office on Smoking and Health.

# Per Capita Consumption Trends California versus Projected Trend, 1984-1997



# **MASSACHUSETTS: 76-Cents Per Pack**

The Massachusetts Tobacco Control Program (MTCP) was created through a statewide referendum held in November 1992 and is entirely funded by a tax on cigarettes and smokeless tobacco products. Since its introduction through June 1999, program successes include:

Massachusetts has seen more rapid declines than states without tobacco control programs in the overall prevalence of tobacco use among adults.

Rates of smoking among Massachusetts youth have declined sharply, with current smoking dropping 70% among 6th graders from 1996 to 1999.

Cigarette consumption has fallen by 33%, while consumption in the rest of the

country declined just 10%

The number of adult smokers has declined

Smoking during pregnancy dropped sharply, from 25% to 13%

Youth smoking rates in Massachusetts from 1996-1999 have declined at a greater rate than the rest of the country

The number of smokers planning to quit has increased, and those who try to quit are more successful.

Source: State of Massachusetts, Department of Public Health

# Per Capita Consumption Trends Massachusetts versus Projected Trend, 1984-1997



Change in Per Capita Cigarette Consumption Before and After an Excise Tax Increase and an Antismoking Campaign California & Massachusetts versus Other 48 States, 1986 to 1996



Source: CDC

## Research Findings – Comprehensive Programs and State Cigarette Sales

 Higher spending on tobacco control efforts significantly reduces overall cigarette consumption

Elasticity estimates for current year spending center on –0.006; estimate for cumulative spending: –0.025

- Marginal impact of tobacco control spending greater in states with higher levels of cigarette sales per capita; average impact significantly higher in states with larger programs
  - Disaggregated program spending suggests that impact of spending on programs focusing on policy change is greater than spending on other programs

Sources: Farrelly, et al. 2001; Liang et. al 2001

## Research Findings – Comprehensive Programs and Youth Smoking

• Higher spending on tobacco control efforts significantly reduces youth smoking prevalence and cigarette consumption among young smokers

Elasticity estimate for youth smoking prevalence: -0.011; estimate for conditional demand: -0.012 (MTF data)

- Estimated impact of spending at CDC recommended levels: minimum: 8-9% reduction in youth smoking prevalence; maximum: over 20% reduction
  - Estimates based on YRBS data suggest that greatest impact of spending on tobacco control programs is on earlier stages of youth smoking uptake

Sources: Farrelly, et al. 2001; Chaloupka et. al 2001



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### Conclusions

Substantial increases in cigarette and other tobacco product prices, including those resulting from significant increases in tobacco excise taxes, lead to large reductions in tobacco use and, in the long run, reduce the public health toll caused by tobacco use.

Additional reductions in overall smoking and in the prevalence of youth smoking result when tax increases are coupled with comprehensive tobacco control efforts.

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