# What Can We Learn From Tobacco?

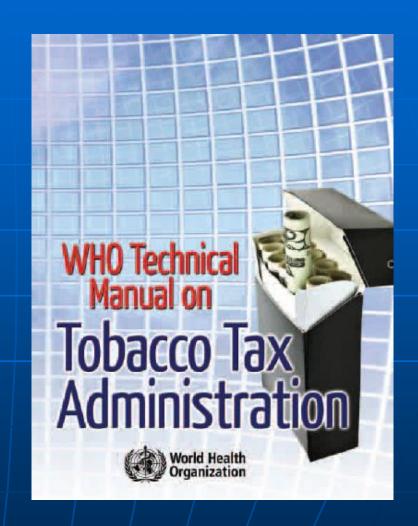
# Frank J. Chaloupka Distinguished Professor University of Illinois at Chicago

Obesity 2012
Price Policy and Health
San Antonio TX, September 22, 2012

#### Overview

- Rationales for taxation
- Types/levels of taxes

- Counterarguments
- Implications for obesity prevention



#### Rationales for Taxation

"Sugar, rum, and tobacco, are commodities which are no where necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.

Adam Smith, An Inquiry into the Nature and Causes of The Wealth of Nations, 1776

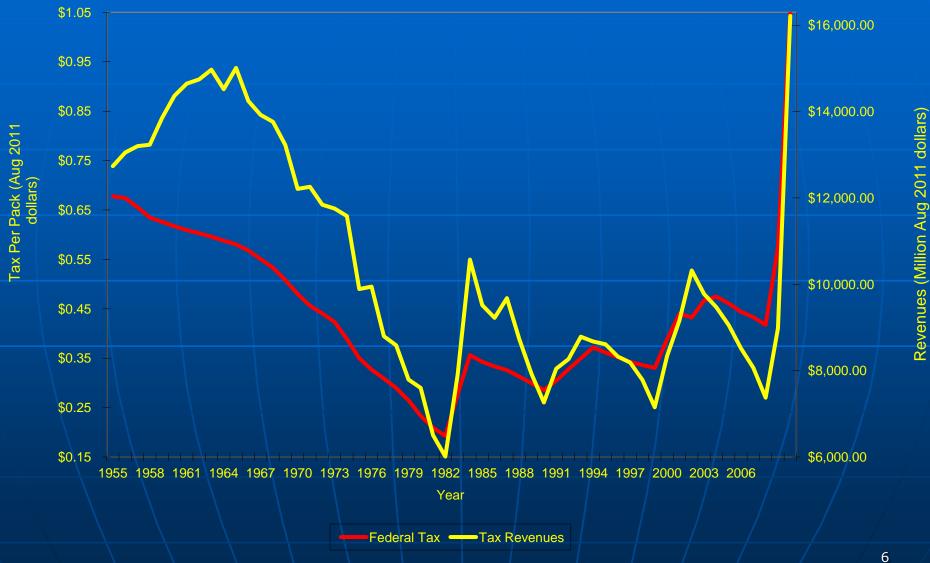
### Why Tax?

#### Efficient revenue generation

- Primary motive historically and still true in many countries today
- Very efficient sources of revenue given:
  - Historically low share of tax in price in many countries
  - Relatively inelastic demand for tobacco products
  - Few producers and few close substitutes
  - One of many goods/services that satisfies the "Ramsey Rule"
- "This vice brings in one hundred million francs in taxes every year. I will certainly forbid it at once

   as soon as you can name a virtue that brings in as much revenue" – Napoleon III on tobacco tax

#### Federal Cigarette Tax and Tax Revenues Inflation Adjusted, 1955-2010



#### Cigarette Tax and Tax Revenues Inflation Adjusted, Iowa, 1965-2010



Source: Tax Burden on Tobacco, 2011, and author's calculations

## Why Tax?

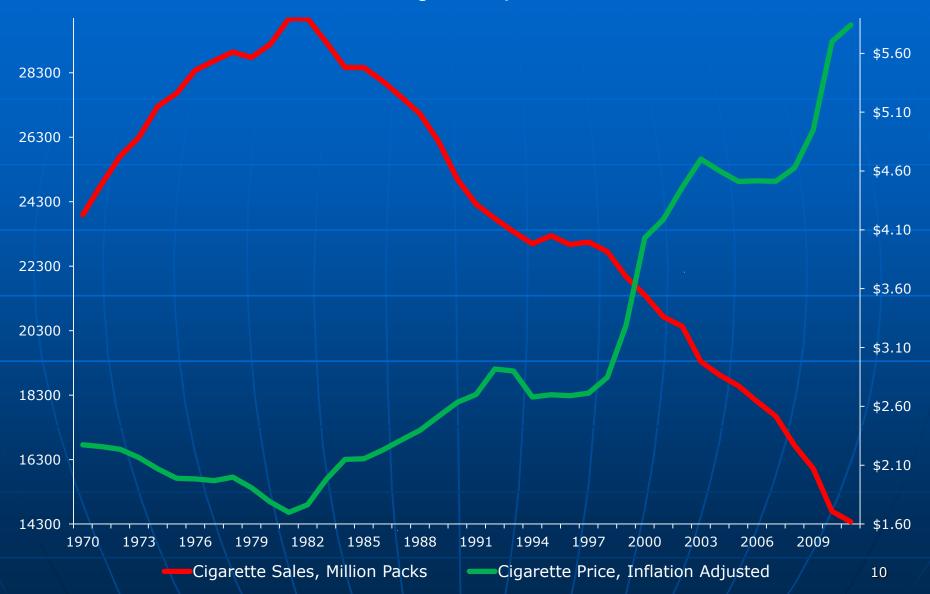
#### Promote public health

- Increasingly important motive for higher tobacco taxes in many high income countries
- Based on substantial and growing evidence on the effects of tobacco taxes and prices on tobacco use
  - Particularly among young, less educated, and low income populations
- "... We [] have a package of six policy measures, known as MPOWER, that can help countries implement the provisions in the Convention. All six measures have a proven ability to reduce tobacco use in any resource setting. But tobacco taxes are by far the most effective." Director General Dr. Margaret Chan, WHO, 2008

#### Prices and Tobacco Use

- Increases in tobacco product prices:
  - Induce current users to try to quit
    - Many will be successful in long term
  - Keep former users from restarting
  - Prevent potential users from starting
    - Particularly effective in preventing transition from experimentation to regular use
  - Reduce consumption among those who continue to use
  - Lead to other changes in tobacco use behavior, including substitution to cheaper products or brands, changes in buying behavior, and compensation

#### Cigarette Sales & Cigarette Prices, United States, Inflation Adjusted, 1970-2011

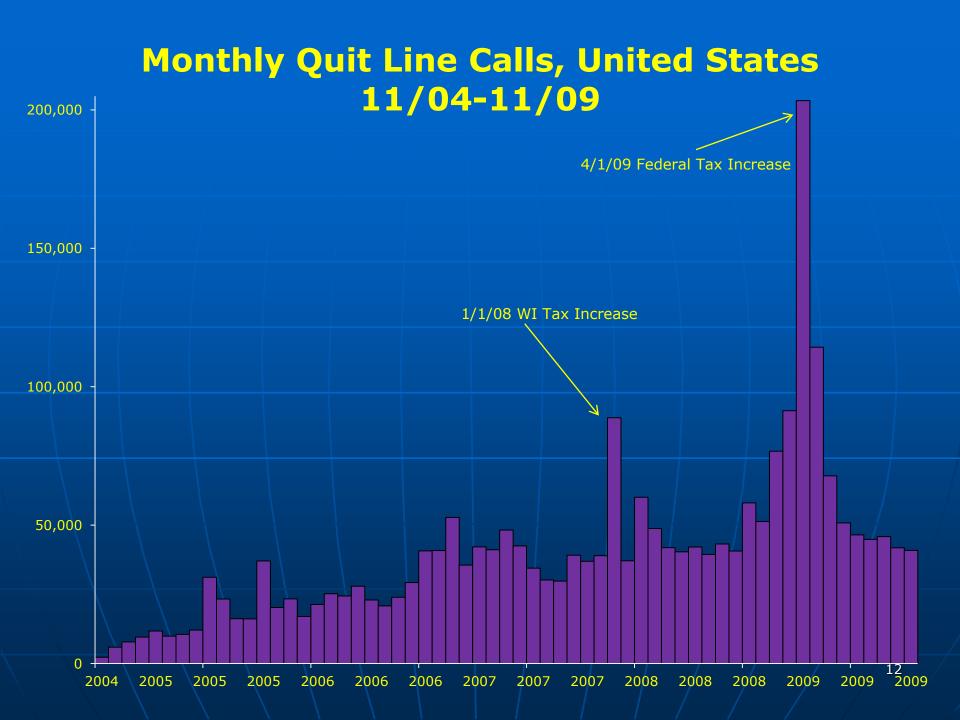


Source: Tax Burden on Tobacco, 2012, and author's calculations

Cigarette Prices and Adult Smoking Prevalence, United States, Inflation Adjusted, 1970-2011



Source: NHIS, *Tax Burden on Tobacco*, 2012, and author's calculations Note: green data points for prevalence are interpolated assuming linear trend

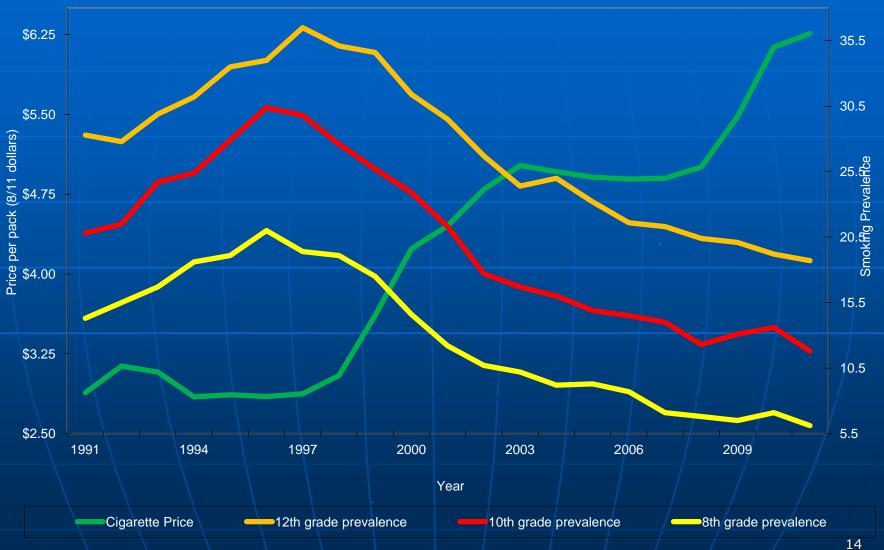


## Cigarette Prices and Cessation US States & DC, 2009



Source: BRFSS, Tax Burden on Tobacco, 2010, and author's calculations

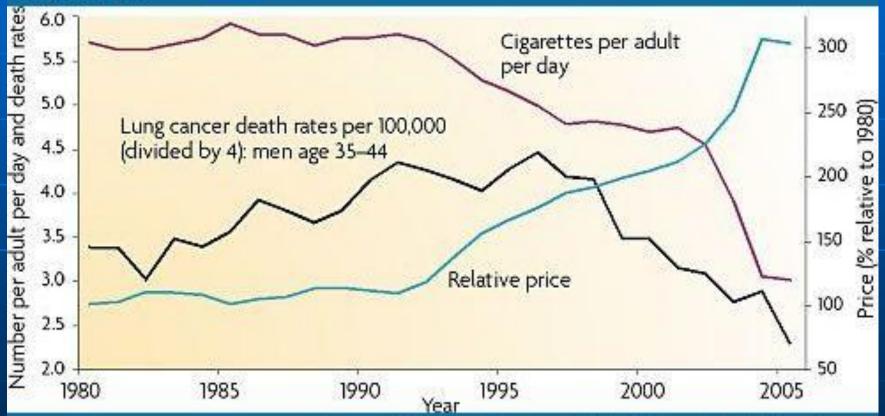
#### **Cigarette Price and Youth Smoking** Prevalence, United States, 1991-2011



Source: MTF, Tax Burden on Tobacco, 2012, and author's calculations

# Taxes, Prices and Health: US, 1980-2005





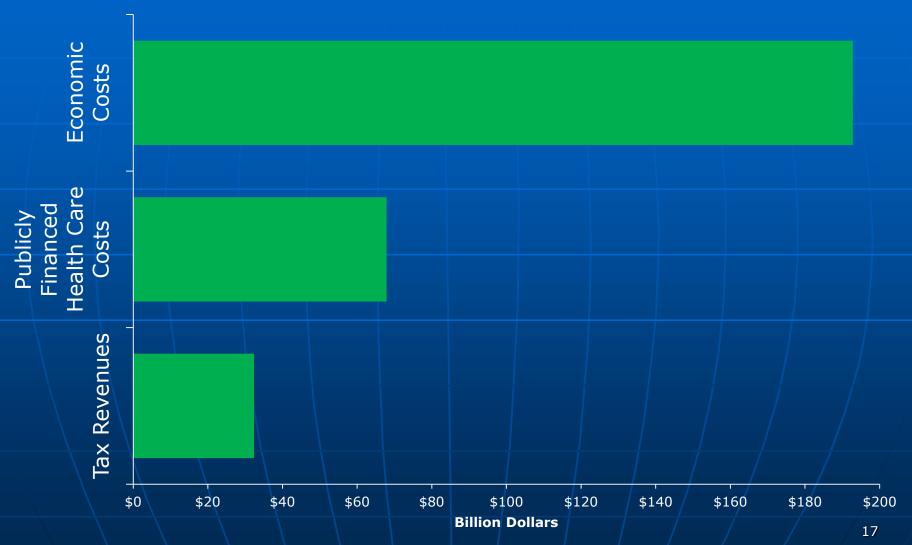
Source: Nat Rev Cancer © 2009 Nature Publishing Group

### Why Tax Tobacco?

- Cover the external costs of tobaccouse
  - "Pigouvian" tax
  - Less frequently used motive
  - Account for costs resulting from tobacco use imposed on non-users
    - Increased health care costs, lost productivity etc. caused by exposure to tobacco smoke among non-smokers; costs of publicly financed health care to treat diseases caused by smoking

#### **Economic Costs & Tax Revenues**

**United States** 



Sources: CDC/SAMMEC, CTFK, Tax Burden on Tobacco, and author's calculations

- Use tobacco excise tax increases to achieve the public health goal of reducing the death and disease caused by tobacco use
  - As called for in Article 6 of the WHO FCTC
  - Additional benefit of generating significant increases in tobacco tax revenues in short to medium term

## Implications for Obesity Prevention

#### Efficient revenue generation

- Considerable revenue potential
- 1¢ per ounce tax on SSBs would generate nearly \$15 billion nationally

#### Promote public health

 Growing evidence that raising price of unhealthy foods/beverages would reduce consumption, promote healthier eating, and improve weight outcomes

#### Cover the external costs of obesity

 Health care costs from treating obesity estimated at \$147-210 billion, with about half covered by Medicare and Medicaid

### Types and Levels of Taxes

### Types of Taxes

#### Variety of tobacco taxes

- Taxes on value of tobacco crop
- Customs duties on tobacco leaf, tobacco product imports and/or exports
- Sales taxes/Value added taxes
- Implicit taxes when government monopolizes production and/or distribution
- Excise Taxes
- Excise taxes are of most interest given specificity to tobacco products
- Specific (per unit, volume, weight) and ad valorem (based on price) excises

#### Types of Tobacco Taxes

#### Specific taxes:

- Easier to administer
  - No valuation issues
- Real value falls with inflation
- Smaller price gap between high/low priced brands
- Generally produce more stable stream of revenue
- Promote higher "quality" products
  - Producers keeps all of additional price from higher quality products

## Types of Tobacco Taxes

- Ad valorem taxes:
  - More difficult to administer given variety of different prices
    - Valuation problems, abusive "transfer" pricing
    - May require minimum price policies
  - More likely to keep pace with inflation
  - More unstable revenues
    - Government subsidizes industry price cuts but benefits from industry price increases
  - Larger price gap
    - Greater potential for "switching down" in response to tax increase
  - Favor low "quality" products
    - Less incentive to invest in quality given price rises by more
  - More "equitable"
    - Absolute amount of tax higher on higher priced brands

#### Simpler is better

- Complex tax structures more difficult to administer
- Greater opportunities for tax evasion and tax avoidance under complex tax structures
- Where existing structure is more complex, simplify over time with goal of achieving single uniform tax

- Rely more on specific tobacco excises as the share of total excises in prices increases
  - Greater public health impact of specific excises given reduced opportunities for switching down in response to tax/price increases
  - Sends clear message that all brands are equally harmful
  - Where existing tax is ad valorem, adopt a specific tax and increase reliance on specific tax over time

- Automatically adjust specific tobacco taxes for inflation
  - Unless adjusted, real value falls over time, as does the real value of revenues generated by tax
  - Ensures the public health impact of tax is maintained
  - To date, not widely done (Australia, New Zealand)

## WHO "Best Practices" for Tobacco Excise Taxes

- Adopt comparable taxes and tax increases on all tobacco products
  - Maximizes public health impact of tobacco tax increases by minimizing opportunities for substitution
  - Harm reduction?

- Increase tobacco taxes by enough to reduce the affordability of tobacco products
  - In many low/middle income countries, positive relationship between income and tobacco use
  - Implies consumption increases even as taxes increase if increases in income larger
    - Depends on relative price, income elasticity
  - Increasing affordability will result in increasing tobacco use and its consequences

- Set tobacco excise tax levels so that they account for at least 70 percent of the retail prices for tobacco products
  - Update of World Bank 'yardstick' of any taxes accounting for 2/3 to 4/5 of retail prices
  - Well above where most countries are currently
  - Further increases in countries that do reach this target

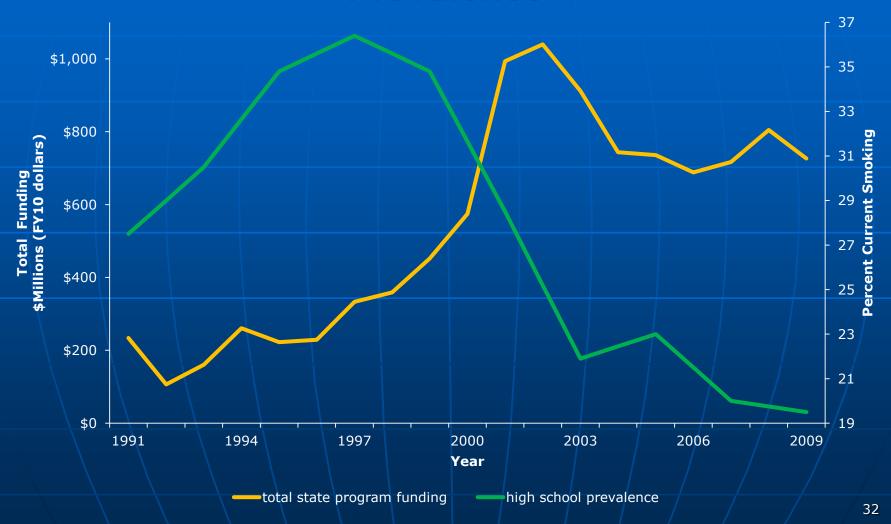
## WHO "Best Practices" for Tobacco Excise Taxes

- Earmark a portion of tobacco tax revenues for related/other tobacco control and/or health promotion efforts
  - Maximizes the health impact of tobacco tax increases
  - Increases public support for tax increases

## Comprehensive Programs

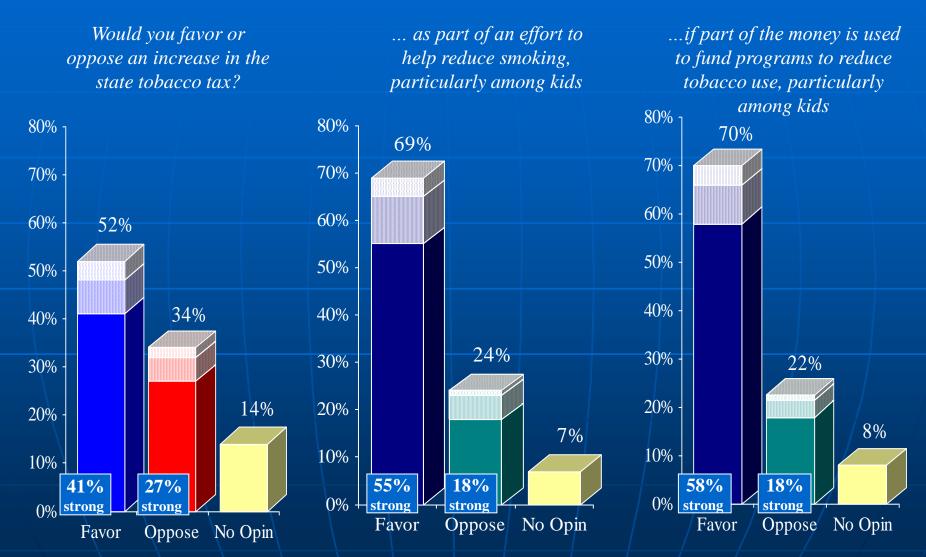
- Impact of state program funding
  - Increased funding associated with:
    - Reductions in overall cigarette sales
    - Lower youth smoking prevalence
    - Lower adult smoking prevalence
    - Increased interest in quitting, successful quitting
  - Much of impact results from large scale mass-media anti-smoking campaigns

## State Tobacco Control Program Funding and Youth Smoking Prevalence



Source: ImpacTeen Project, UIC; YRBS

## Earmarking for Youth Smoking Prevention Increases Support For Tobacco Tax Hikes



RWJF, National survey of registered Voters - June 2002 The Mellman Group/Market Strategies; from McGoldrick 2010

#### Implications for Obesity Prevention

#### Sizable, specific excise taxes

 Greater impact on consumption than sales taxes or ad valorem excise taxes

#### Comprehensive taxation

Reduce opportunities for substitution to untaxed products

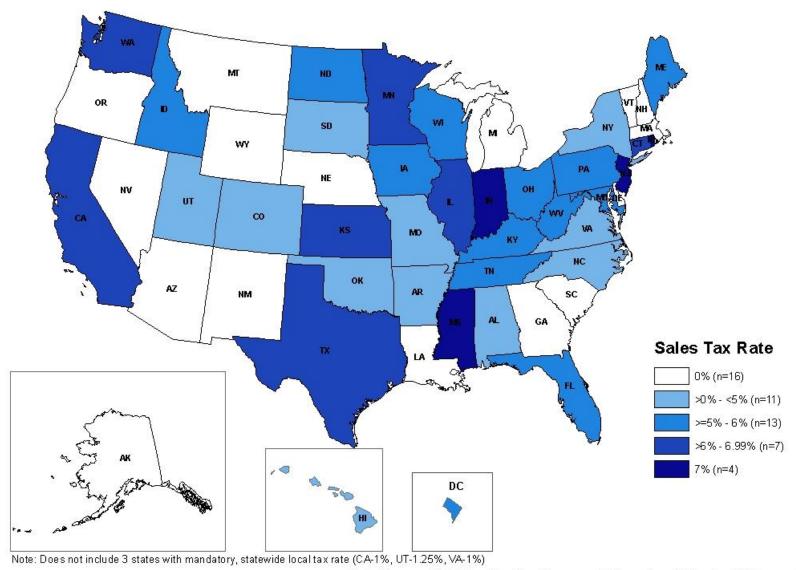
## Regular increases to outpace inflation and income growth

Maintains effectiveness in promoting healthier behaviors

#### Earmark funds for obesity prevention

Adds to impact of tax and increases public support

#### State Regular, Sugar-Sweetened Soda Sales Tax Rates (as of January 1, 2012)



Data Source: Bridging the Gap Program, University of Illinois at Chicago, 2012

## Sales Taxes on Selected Beverages, All States (1/1/12)



**Note:** Three states also impose a mandatory statewide local tax that is not reflected in the above data: CA (1%), UT (1.25%), VA (1%).

### Counterarguments

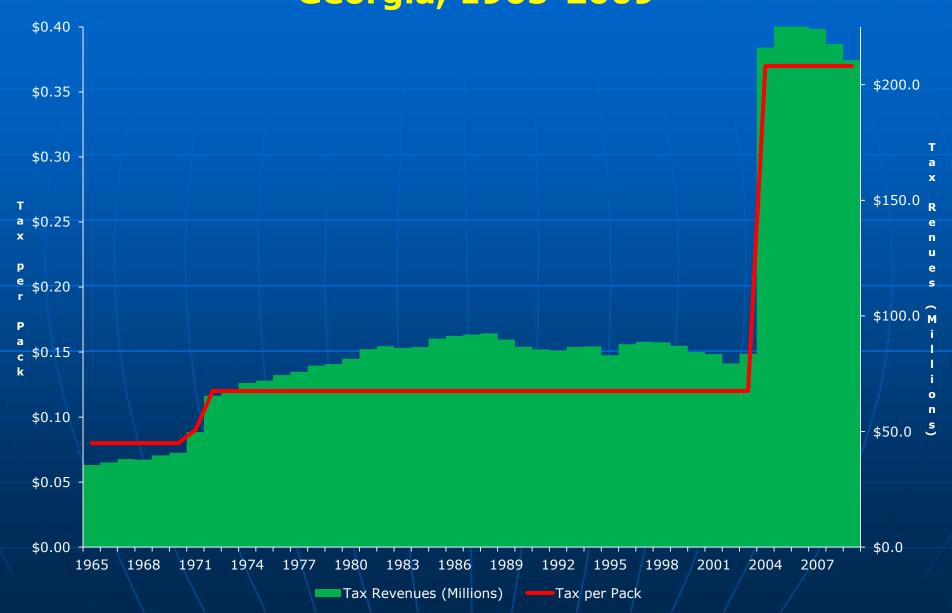
#### Impact on Revenues

By J Scott Moody, 4/2/08, from an AP story:

AUGUSTA — "A coalition of health groups today urged lawmakers to increase the cigarette tax by a \$1 per pack, saying the increase will encourage more people to quit smoking and generate more money for health programs.

Translation: Fewer people smoking equals more cigarette tax revenue? Someone needs a math lesson."

### Cigarette Tax and Tax Revenues Georgia, 1965-2009



# Positive Effect of Tax Increase on Revenue Results from:

#### Low share of tax in price:

- state taxes account for about 25% of price
- total taxes account for less than half of price
- Implies large tax increase has much smaller impact on price

## Less than proportionate decline in consumption:

• 10% price increase reduces consumption by 4%

#### Impact on Jobs

JULY, 14, 2010 – The Associated Press

- RICHMOND, Va. The tobacco industry is running a full-court press ahead of a federal scientific panel's meeting to discuss how to regulate menthol cigarettes, a still-growing part of the shrinking cigarette market.
- The union representing nearly 4,000 tobacco workers sent a letter to the Food and Drug Administration committee examining the public health effects of the minty smokes, warning that a ban could lead to "severe jobs loss" and black market cigarettes.

#### Impact on Jobs

- Tobacco excise tax will lead to decreased consumption of tobacco products
  - Small loss of jobs in tobacco sector
- Money not spent on tobacco products will be spent on other goods and services
  - Gains in jobs in other sectors
- Increase in tax revenues will be spent by government
  - Additional job gains in other sectors
- Net increase in jobs in most states

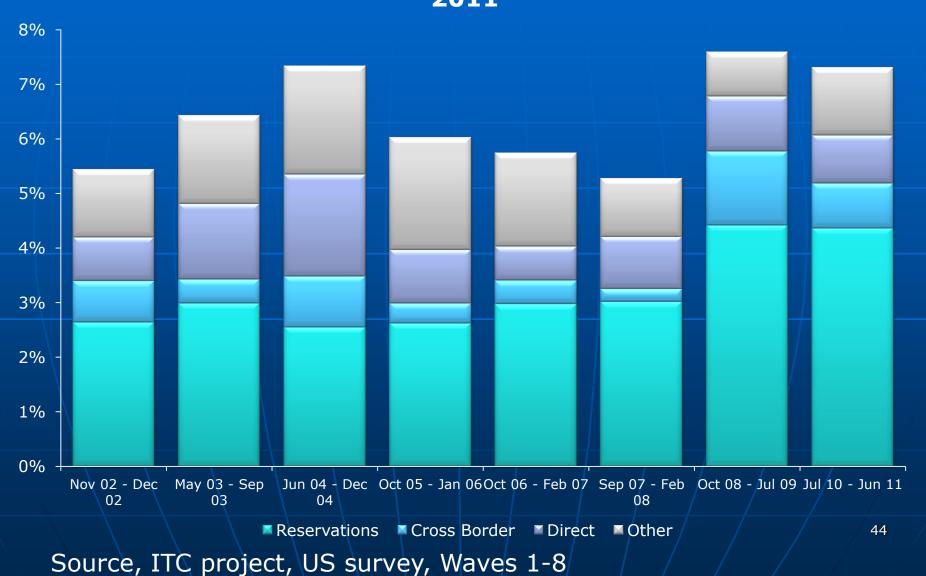
#### Tax Avoidance & Evasion

April 1, 2008 - New York Sun

A pack of premium cigarettes in New York City now costs \$7 or \$8; prices would rise to above \$9. Opponents of the tax increase argue that higher prices would drive smokers to seek ways to evade the law and purchase cheaper cigarettes from smugglers or in neighboring states, blunting potential revenue gains for the state. "It's a black market gold mine," a senior fellow at the Manhattan Institute, E.J. McMahon, said of the proposed tax.

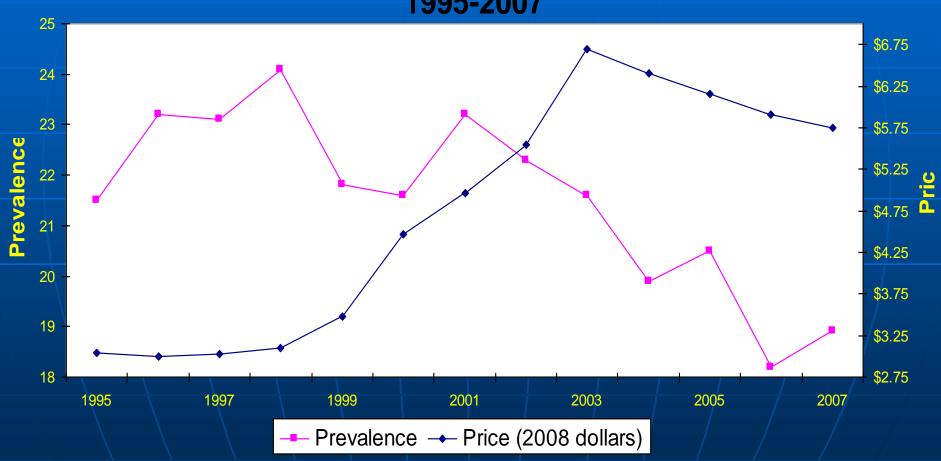
#### Tax Avoidance

US Smokers, Last Purchase, November 2002-June 2011



## Tax Avoidance & Evasion Do NOT Eliminate Health Impact of Higher Taxes

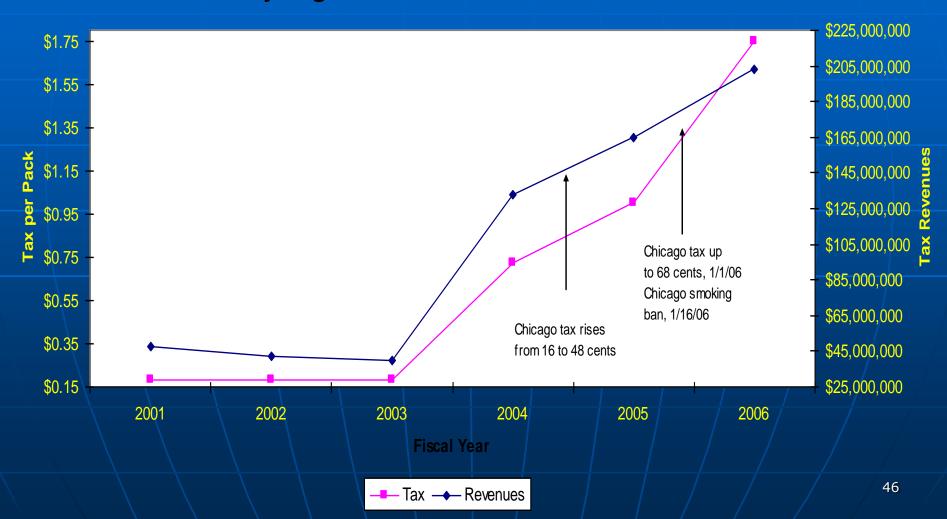
Cigarette Prices and Adult Prevalence, New York, 1995-2007



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## Tax Avoidance & Evasion Do NOT Eliminate Revenue Impact of Higher Taxes

**Cook County Cigarette Tax and Tax Revenues - FY01-FY06** 



#### Combating Tax Evasion

- High-tech tax stamps
- Licensing of all involved in distribution and sale
- Strong enforcement
- Swift, severe penalties
- Focus on large scale, criminal activity
- Coordinated efforts
  - NAAG efforts targeting Internet
  - Agreements with tribes



#### Impact on the Poor

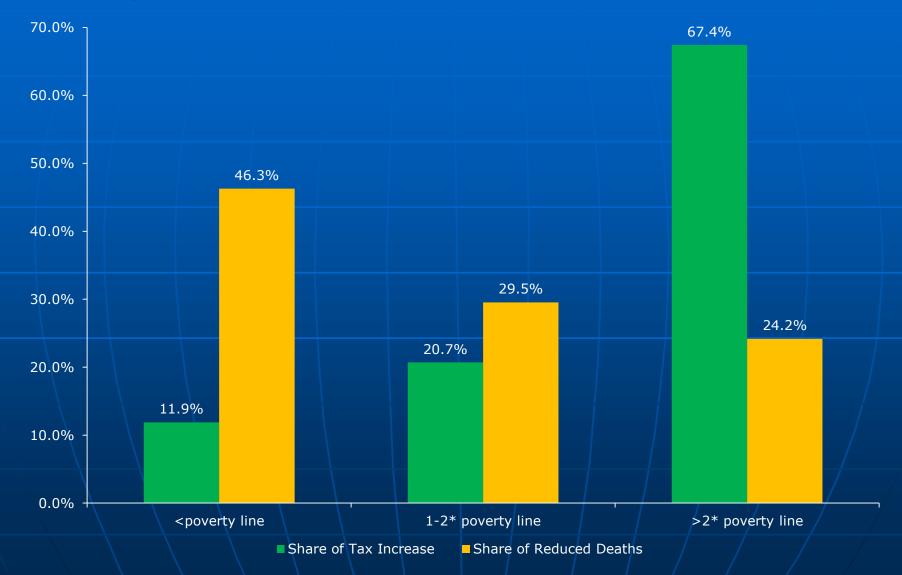
July 23, 2010 - San Francisco Examiner

· "Democrats are relying more heavily in their midterm 2010 election message that Republicans care nothing about the poor. Conveniently absent from this analysis is Republican opposition to President Barack Obama's cigarette tax increase...... While higher cigarette taxes do discourage smoking, they are highly regressive. Analyzing a slightly less severe proposal in 2007, the Tax Foundation noted that 'no other tax hurts the poor more than the cigarette tax." Peyton R. Miller, special to the Examiner.

#### Impact on the Poor

- Concerns about the regressivity of higher tobacco taxes
  - Tobacco taxes are regressive, but tax increases can be progressive
    - Greater price sensitivity of poor relatively large reductions in tobacco use among lowest income populations, small reductions among higher income populations
    - Health benefits that result from tax increase are progressive

## Who Pays& Who Benefits Impact of Federal Tax Increase, U.S., 2009



Source: Chaloupka et al., in progress; assumes higher income smokers smoke more expensive brands

#### Impact on the Poor

- Need to consider overall fiscal system
  - Key issue with tobacco taxes is what's done with the revenues generated by the tax
  - Greater public support for tobacco tax increases when revenues are used for tobacco control and/or other health programs
  - Net financial impact on low income households can be positive when taxes are used to support programs targeting the poor
  - Concerns about regressivity offset by use of revenues for programs directed to poor

### Implications for Obesity Prevention

- Beverage/snack taxes will clearly raise new revenues
- Employment impact
  - No net impact on employment
- Tax avoidance/evasion
  - Less likely given magnitude of taxes being considered and costs of transporting
- Impact on the poor
  - Larger reductions in use among lower income, but tax will be regressive
  - Use of tax revenues a key factor

### Summary

### Summary

- Tobacco tax increases have significantly reduced tobacco use and its consequences
  - Potential for using taxes to promote healthier eating and curb obesity
- Regularly increased, sizable specific excise taxes most effective
- Earmarking tax revenues for prevention & control programs adds to impact
- Economic counterarguments false or greatly overstated

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