

Public Health & Revenue Implications of a Sugar Sweetened Beverage Tax

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Overview

- Economic rationales for SSB taxation
- Experiences with tobacco taxation
- Impact of food taxes/prices on consumption and consequences
- Sugar-sweetened beverage taxation
- Oppositional arguments – myths & facts

Rationale for SSB Tax

■ **Efficient revenue generation**

- Considerable revenue potential
- US Estimates suggest that 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**

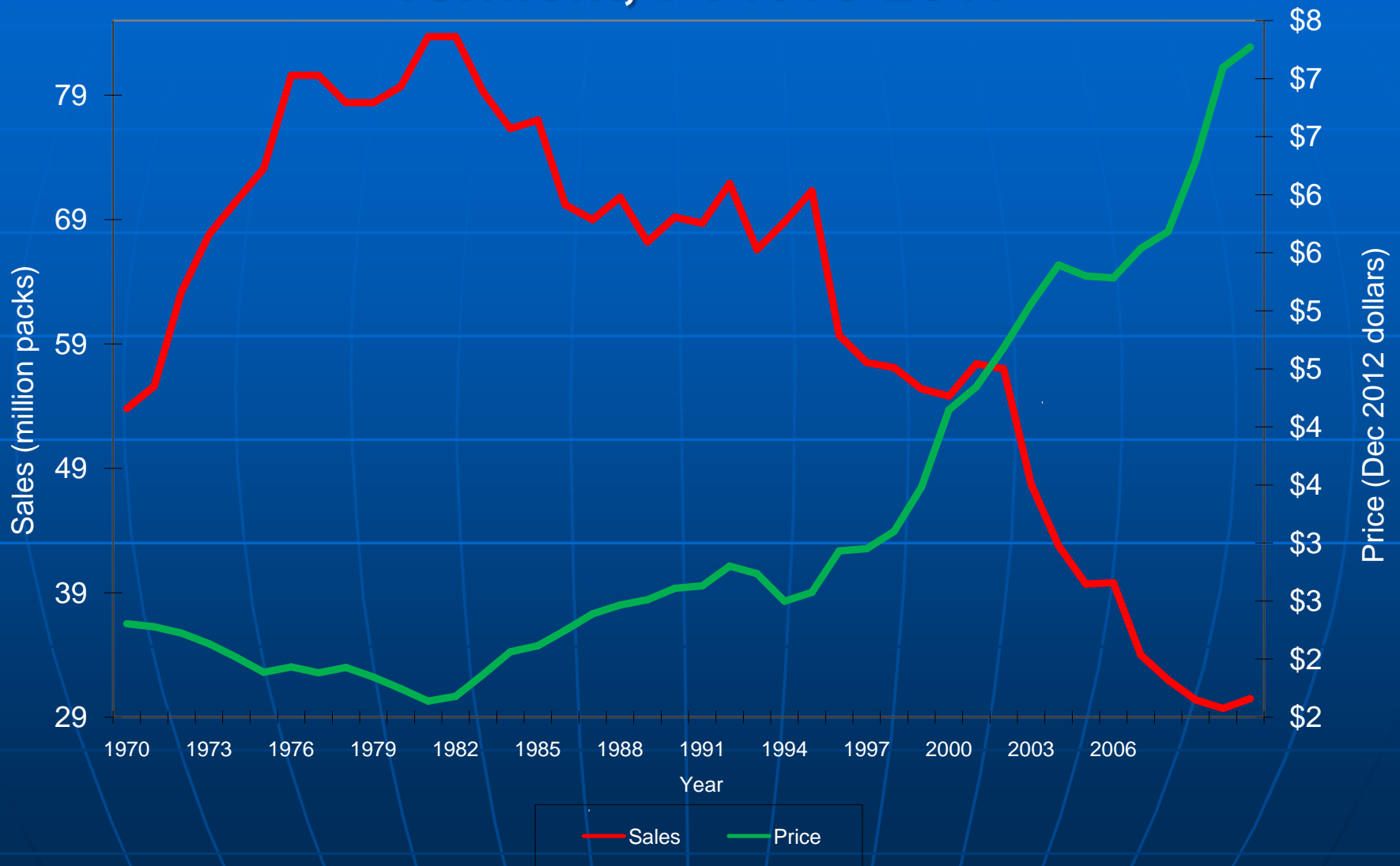
- In US, health care costs from treating obesity estimated at \$147-210 billion, with about half covered by public insurance programs

Impact of Taxes & Prices on Tobacco Use

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

Cigarette Prices and Cigarette Sales Vermont, FY1970-2011



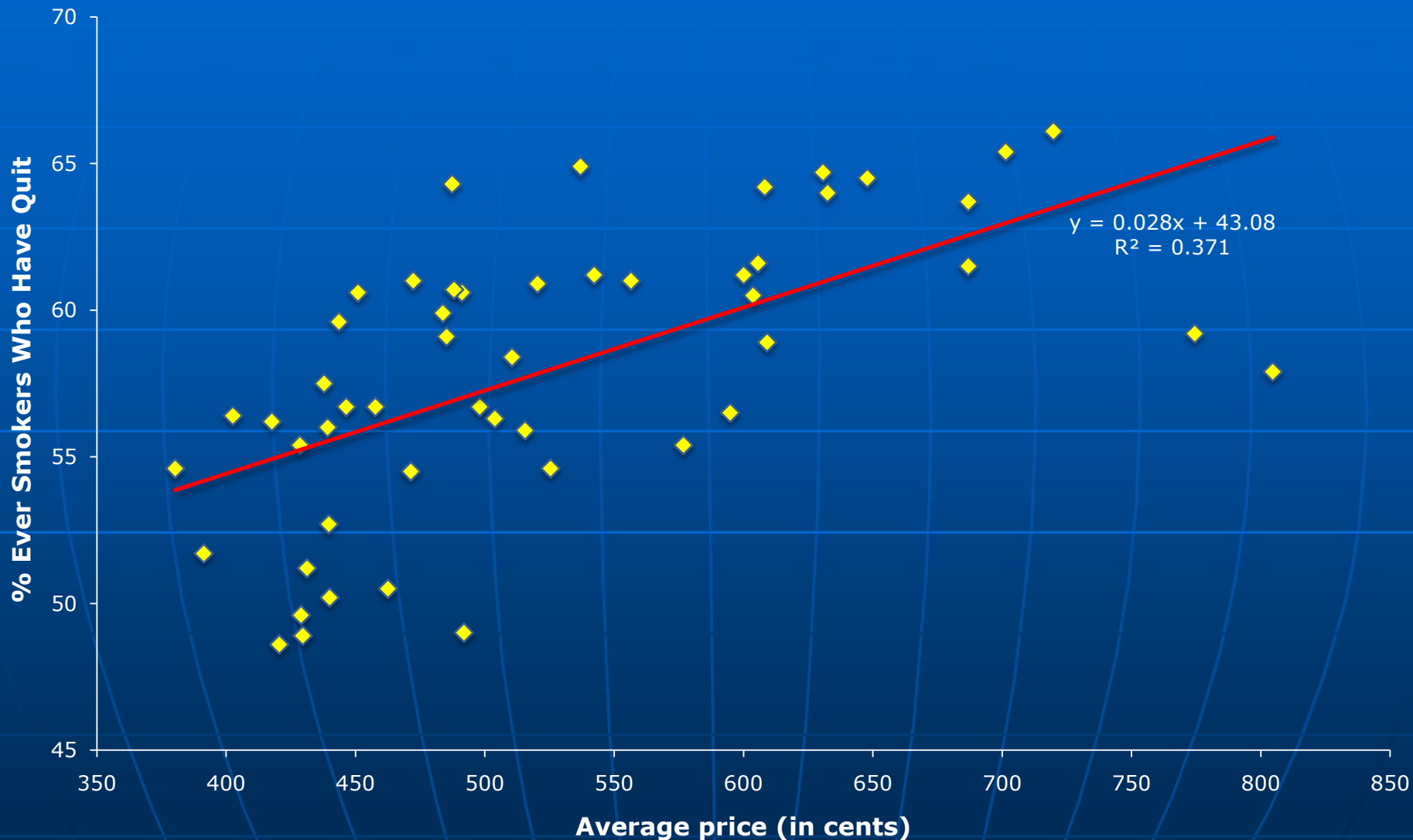
Source: *Tax Burden on Tobacco, 2012*, and author's calculations

Cigarette Prices and Adult Smoking Prevalence, United States, 1970-2008



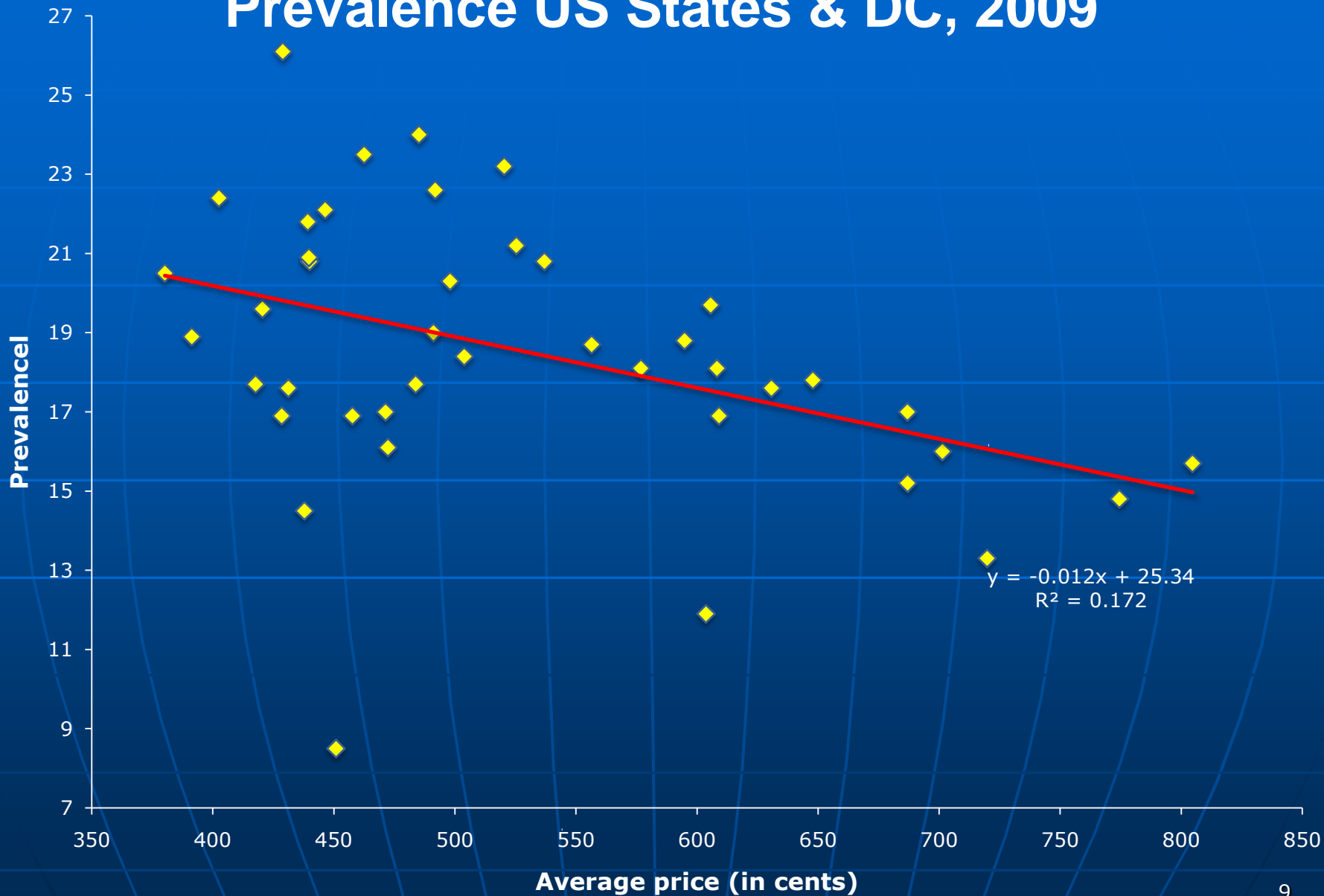
Source: NHIS, *Tax Burden on Tobacco*, 2009, and author's calculations
 Note: green data points for prevalence are interpolated assuming linear trend

Cigarette Prices and Cessation US States & DC, 2009



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

Cigarette Prices and Youth Smoking Prevalence US States & DC, 2009

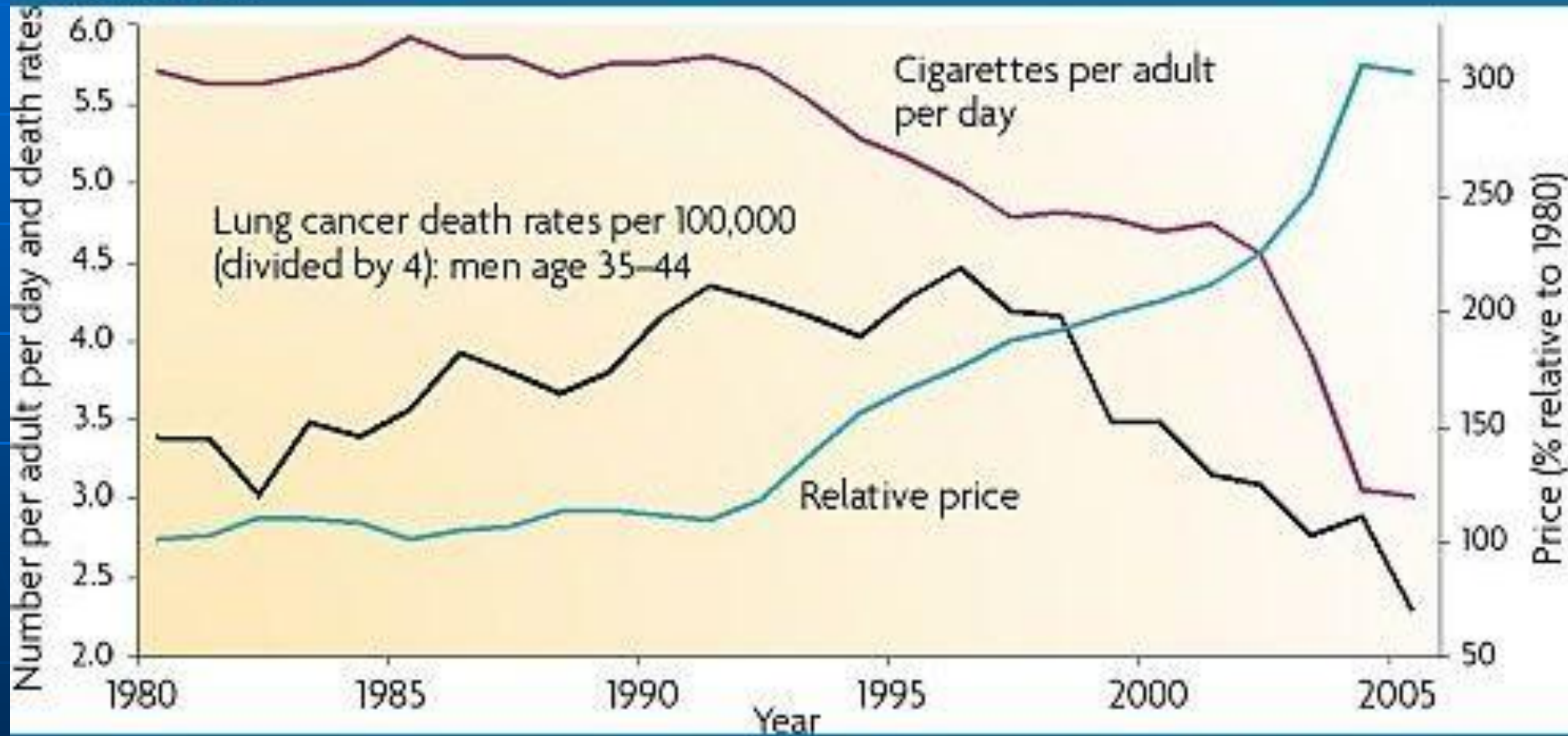


Source: YRBS, *Tax Burden on Tobacco*, 2010, and author's calculations

Taxes, Prices and Health

US, 1980-2005

Medscape

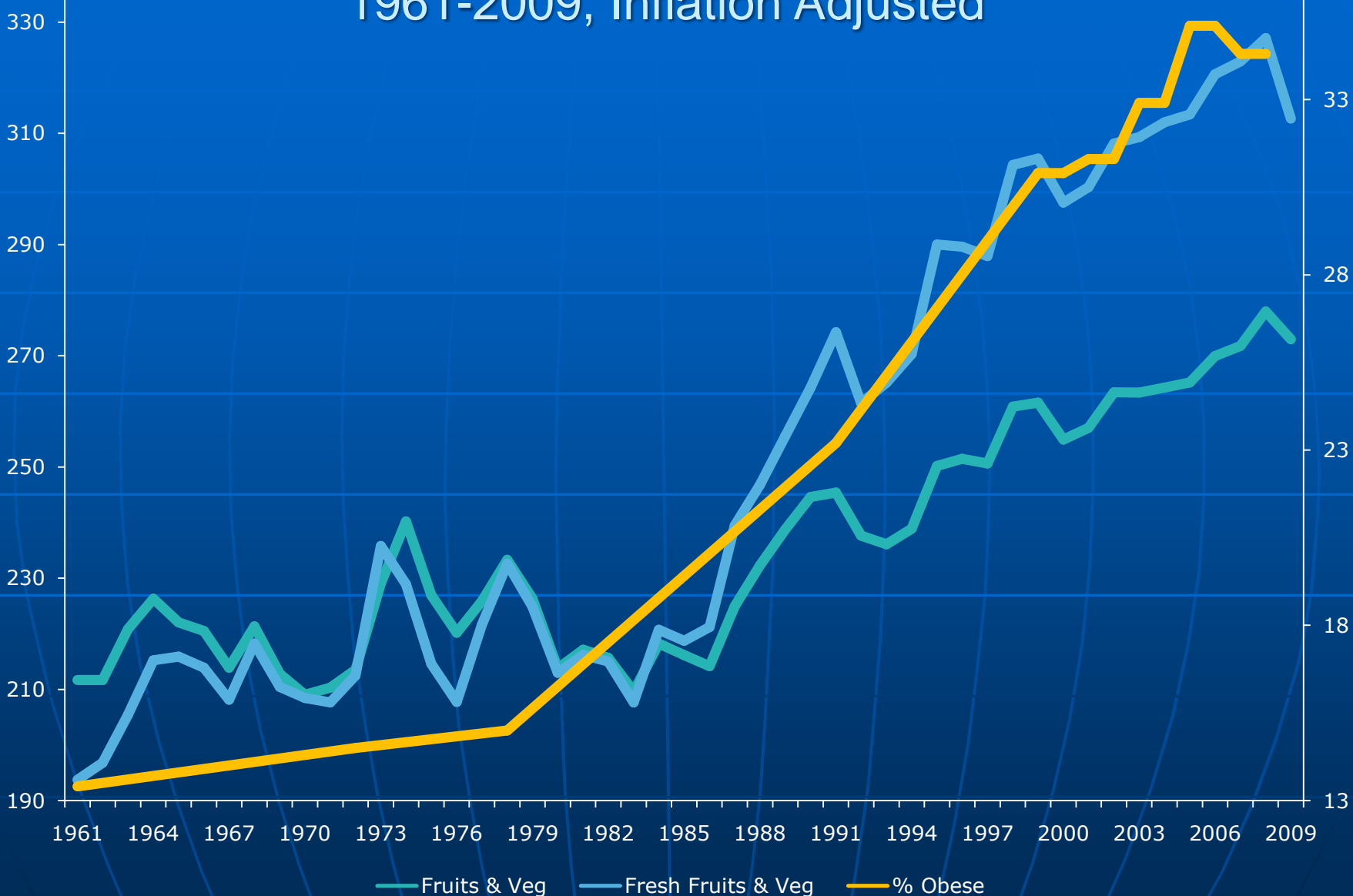


Source: Nat Rev Cancer © 2009 Nature Publishing Group

Impact of Food & Beverage Prices on Diet and Weight

Selected Food Price & Adult Weight Trends

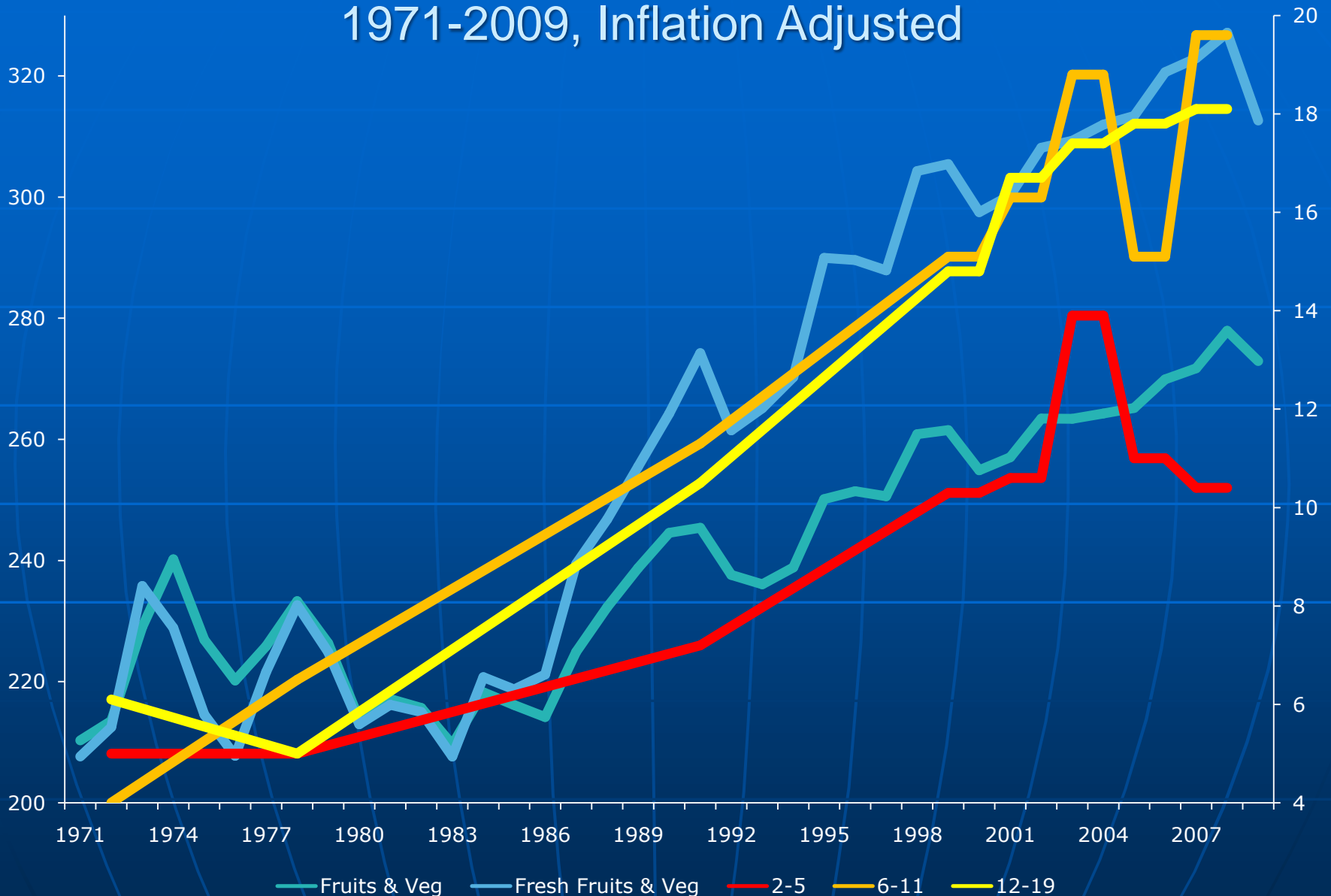
1961-2009, Inflation Adjusted



Source: BLS; NHES-I 1960-62; NHANES, 1971-74, 1976-80, 1988-94, 1999-2000, 2001-02, 2003-04, 2005-06, 2007-08

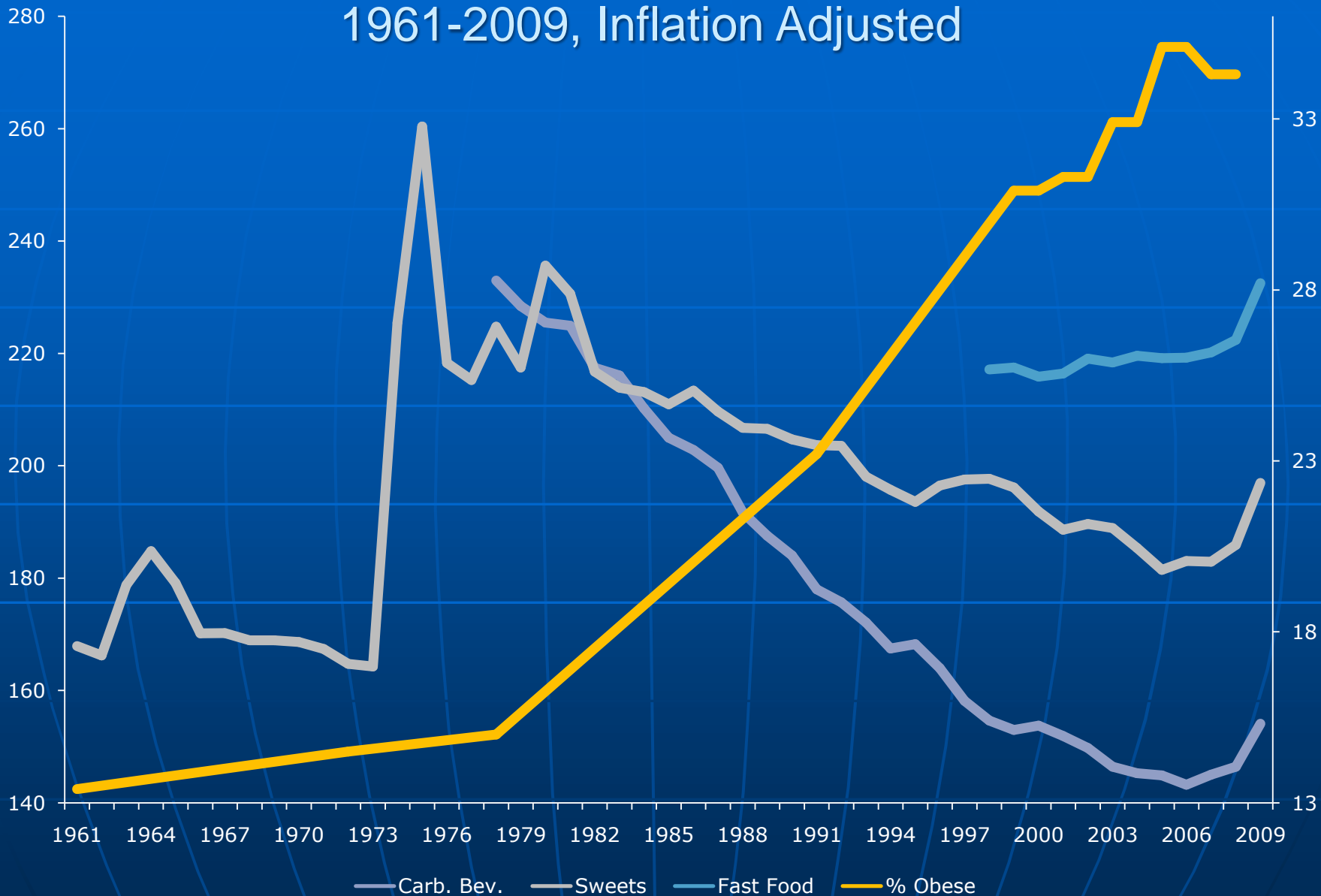
Selected Food Price & Youth Weight Trends

1971-2009, Inflation Adjusted



Selected Food Price & Adult Weight Trends

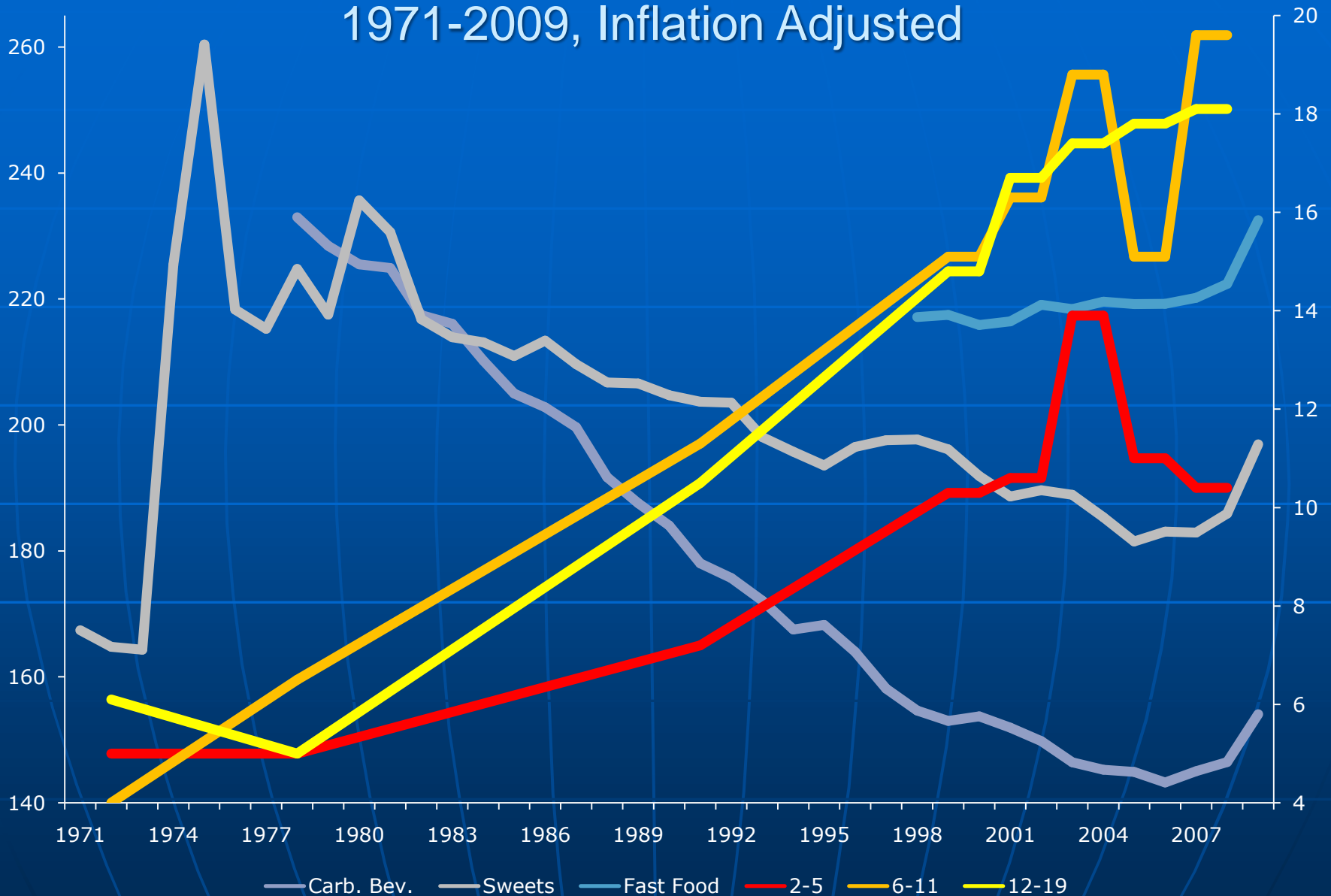
1961-2009, Inflation Adjusted



Source: BLS; NHES-I 1960-62; NHANES, 1971-74, 1976-80, 1988-94, 1999-2000, 2001-02, 2003-04, 2005-06, 2007-08

Selected Food Price & Youth Weight Trends

1971-2009, Inflation Adjusted



Food Prices and Consumption

Extensive economic research on the impact of food and beverage prices on consumption of various products; estimates suggest 10% own-price increase would reduce:

- Cereal consumption by 5.2%
- Fruit consumption by 7.0%
- Vegetable consumption by 5.9%
- Soft drink consumption by 7.8%
- Sweets consumption by 3.5%
- Food away from home consumption by 8.1%

Food Prices and Consumption

Estimates from more recent research suggest similar or even larger effects for 10% price increases:

- Sugar sweetened beverage consumption falls by 12.1%
- Fast food consumption falls by 5.2%
- Vegetable consumption falls by 4.8%
- Fruit consumption falls by 4.9%

Food Prices and Weight Outcomes

Relatively limited research with mixed findings to date on impact of food and beverage prices and weight outcomes:

- Higher sugary food prices reduce prevalence of overweight/obesity among adults (Miljkovic et al., 2008)
- 10% higher fast food prices would reduce prevalence of adolescent obesity by almost 6% (Powell, et al., 2007)
- Higher soda sales taxes associated with reduced weight gain, particularly for overweight kids (Sturm, et al., 2010)
- Higher carbonated beverage prices significantly related to lower BMI in children (Wendt and Todd, 2011)
- Tax-induced reductions in calories from beverage intake offset by increased calories from other sources (Fletcher et al., 2010)

Food Prices and Weight Outcomes

While mixed, the weight of the evidence increasingly indicates that changes in relative prices for healthier and less healthy foods may affect weight outcomes, with greater impact on:

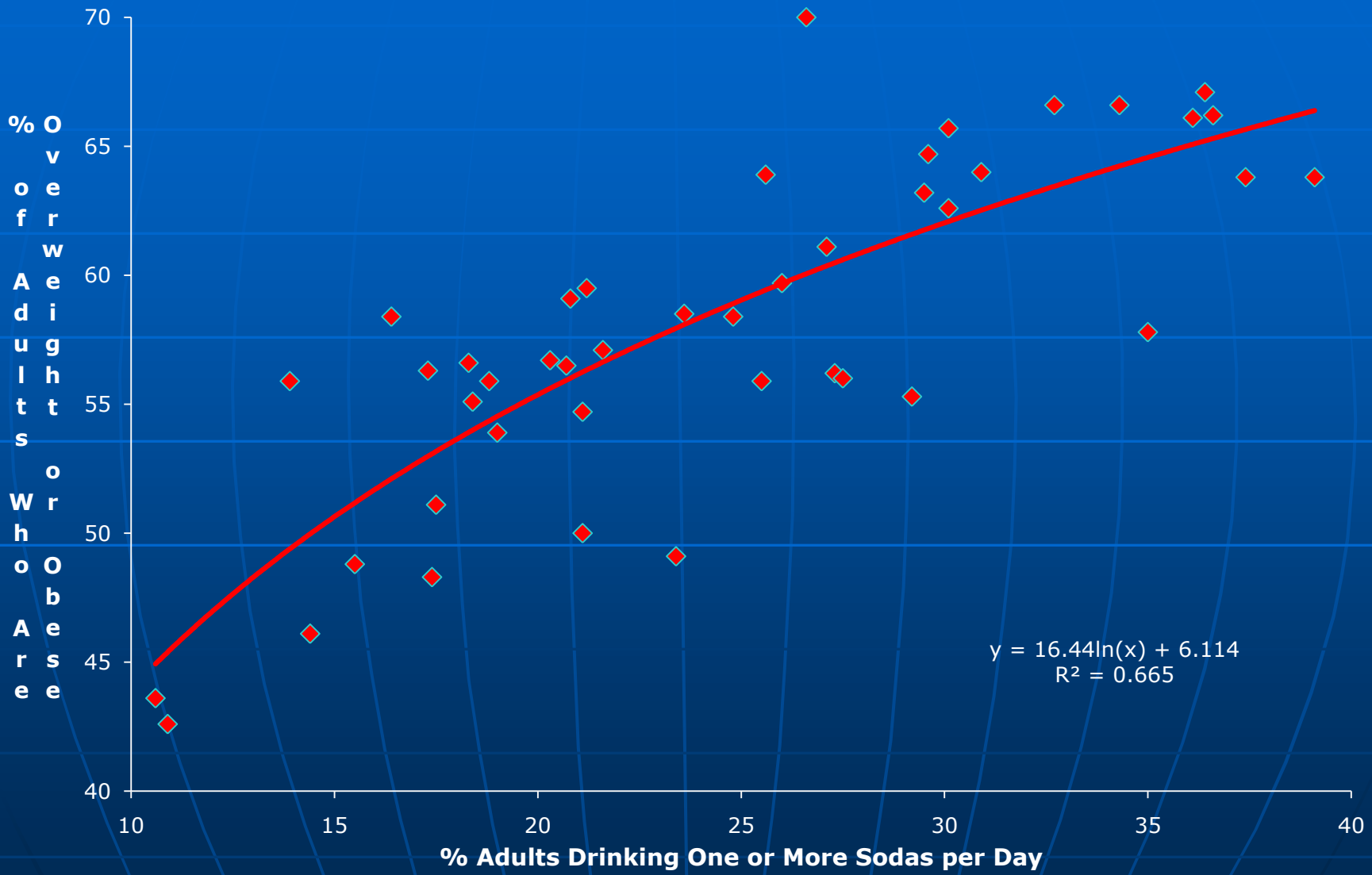
- Lower income, less educated populations
- Younger populations
- Populations at greater risk for obesity

Sugar Sweetened Beverage Taxes

Why Sugar-Sweetened Beverage Taxes?

- Link to obesity
 - Several meta-analyses conclude that increased SSB consumption causes increased weight, obesity
 - Increased calories from SSBs not offset by reductions in calories from other sources
- Other health consequences
 - type 2 diabetes, lower bone density, dental problems, headaches, anxiety and sleep disorders

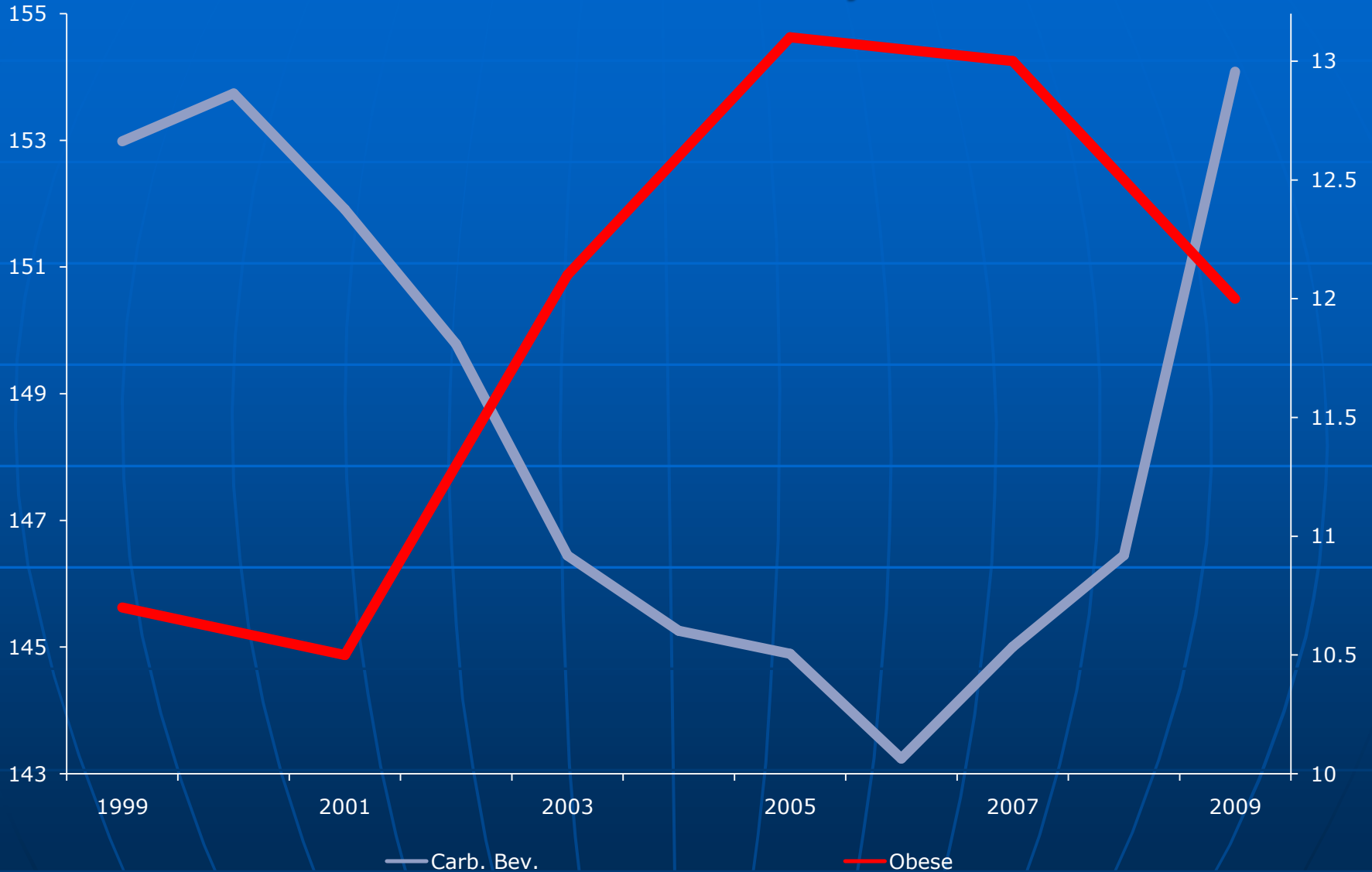
Soda Consumption & Obesity California Counties, 2005



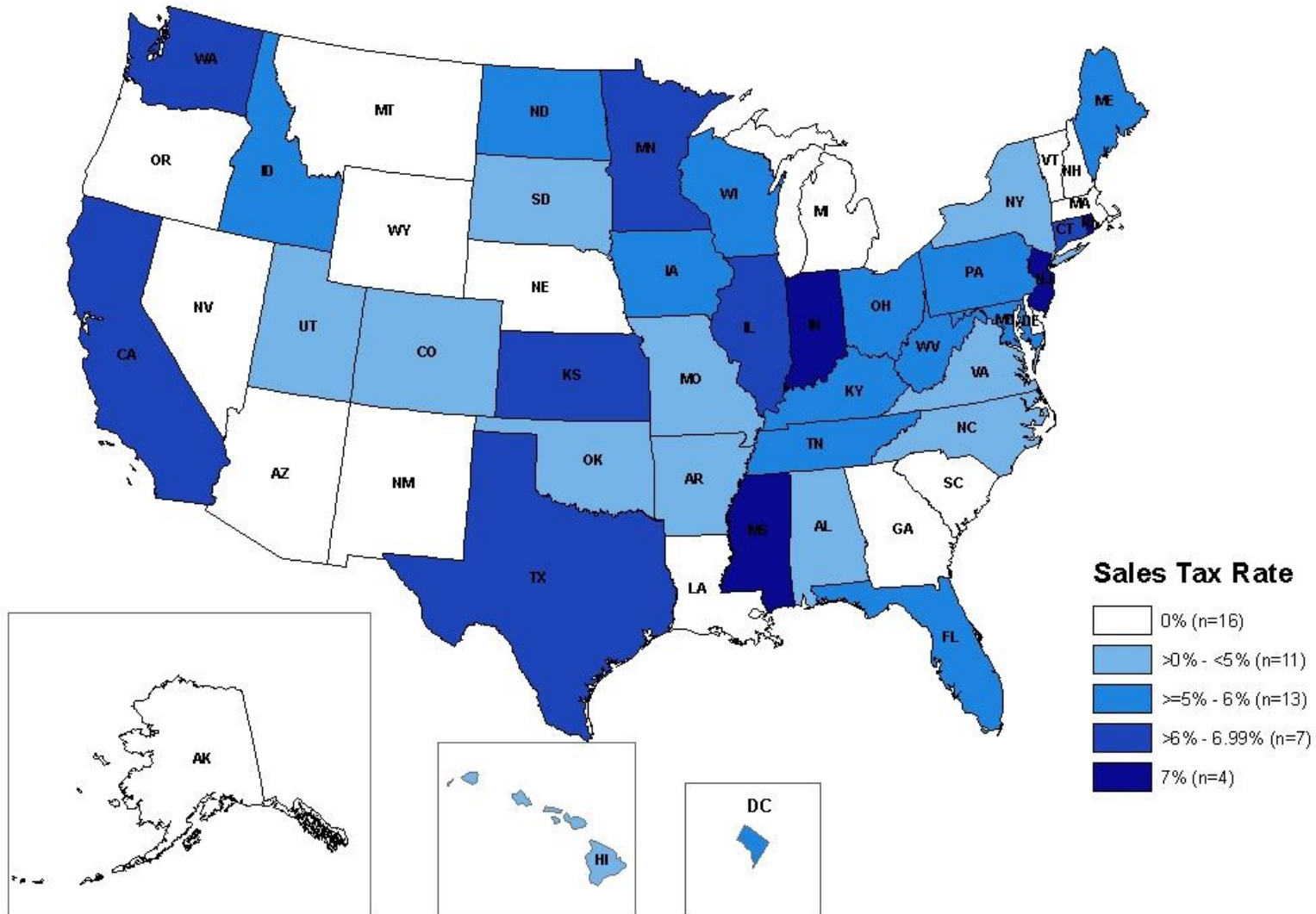
Source: Babey, et al., 2009 and authors' calculations.

Carbonated Beverage Prices & Youth Obesity

1995-2009, Inflation Adjusted



Sales Taxes on Carbonated Beverages United States, July 1, 2012



Note: Does not include 3 states with mandatory, statewide local tax rate (CA-1%, UT-1.25%, VA-1%)

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

Best Practices in SSB Taxation

- From a public health perspective, specific excise tax on SSBs only preferable to sales tax or ad valorem excise tax or to a broader beverage tax that includes low/no-calorie options
 - More apparent to consumer
 - Easier administratively
 - Reduces incentives for switching to cheaper brands, larger quantities
 - Revenues more stable, not subject to industry price manipulation
 - Greater impact on consumption; more likely impact on weight outcomes
 - Disadvantage: need to be adjusted for inflation

SSB Taxation & Revenues

- Revenue generating potential of beverage tax is considerable
 - SSB Tax calculator at:
 - <http://www.yaleruddcenter.org/sodatax.aspx>
 - Tax of one cent per ounce could generate:
 - \$26.5 million in Vermont if on SSBs only
 - \$39.3 million if diet included
 - Earmarking tax revenues for obesity prevention efforts would add to impact of tax

Oppositional Arguments

-

Myths & Facts

Impact on Jobs

- SSB tax will lead to decreased consumption of beverages
 - Small loss of jobs in beverage sector
- Money not spent on beverages 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
- Small net increase in jobs likely in most states

Impact on the Poor

- Greater price sensitivity of poor – relatively large reductions in consumption among lowest income populations, small reductions among higher income populations
- Health benefits that result from tax increase are progressive
- Use of tax revenues for obesity prevention, health promotion, and/or other programs targeting the poor offsets financial impact

Tax Avoidance

- Some tax avoidance likely for consumers along border, but not enough to offset the public health and revenue impact of tax
- Similar concerns about tobacco taxes greatly exaggerated
 - Real reductions in tobacco use
 - Real increases in tobacco tax revenues

Summary

Summary

- Tobacco tax increases have significantly reduced tobacco use and its consequences
- Potential for using sugar sweetened beverage taxes to promote healthier eating and curb obesity
 - While generating considerable revenue for obesity prevention and health programs
- Economic counterarguments false or greatly overstated

For more information:

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<http://www.bridgingthegapresearch.org/>

The screenshot shows a Windows Internet Explorer browser window with the address bar displaying http://www.bridgingthegapresearch.org/research/sodasnack_taxes/. The browser's address bar also shows a search bar with the text "Soda/Snack Taxes" and a "Google" search button. The website's header features the logo "bridging the gap" and the tagline "Research Informing Policies and Practices for Healthy Youth". A navigation menu includes "HOME", "ABOUT US", "RESEARCH", "RELATED SITES", and "CONTACT US". Below the navigation menu, there are three sub-menus: "District Wellness Policies", "Elementary School Survey", and "Soda/Snack Taxes". The main content area has a blue background with the title "Soda/Snack Taxes" and the text: "This page highlights our research around state-level taxes on snack foods, soda, and other sweetened beverages. To see products from other BTG research activities, click on the 'Research' tab above." At the bottom of the page, there is a section titled "Sugar-Sweetened Beverage Taxes and Public Health: Research Brief" with the text: "This 2009 research brief provides an overview of the current research on" and a "DEFINITIONS" section with the text: "These files contain definitions of food and food products for use in conjunction with the snack tax data. These definitions were compiled beginning".