Translating Research for Policy: Lessons from the Field

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Presentation Overview

- Discuss the “parallel universes” within which researchers and policymakers co-exist
- Use of “stories” as a critical policy tool
- Translating research for policy
- Interactive communications with policymakers
  - Policy Briefings
Researchers and Policymakers—Travellers in “Parallel Universes”

Figure 1. The “real-world” process of decision making in science and public policy.

Source: Brownson et al., *AJPM* 2006; 30(2)
## Research vs. Policy

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Researcher</th>
<th>Advocate or Policy Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORIGIN OF PROBLEMS</td>
<td>Academics</td>
<td>Practitioners/Public/Constituents</td>
</tr>
<tr>
<td>COMMUNICATIONS</td>
<td>Journal article</td>
<td>Memo or issue paper</td>
</tr>
<tr>
<td>NATURE OF DATA</td>
<td>Primary data</td>
<td>Secondary data</td>
</tr>
<tr>
<td>AIM OF ANALYSIS</td>
<td>Improve theory</td>
<td>Improve practice</td>
</tr>
<tr>
<td>LOCUS OF INCENTIVES</td>
<td>Universities</td>
<td>Governments</td>
</tr>
</tbody>
</table>

Differences in decision making and persuasion among researchers and policymakers

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Researcher</th>
<th>Policymaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major incentive(s)</td>
<td>Grants, publications</td>
<td>Re-election, recognition</td>
</tr>
<tr>
<td>Opinion leaders</td>
<td>Leading scholars</td>
<td>Civic leaders, contributors, political leaders</td>
</tr>
<tr>
<td>Connection with advocates</td>
<td>Weak</td>
<td>Strong</td>
</tr>
<tr>
<td>Accountability</td>
<td>Editors, funders</td>
<td>Political parties, government, taxpayers</td>
</tr>
<tr>
<td>Knowledge span</td>
<td>Deep knowledge on narrow issues</td>
<td>Less in-depth knowledge on a wide array of issues</td>
</tr>
<tr>
<td>Willingness to accept uncertainty</td>
<td>Lower</td>
<td>Higher</td>
</tr>
<tr>
<td>Type of data relied on</td>
<td>Science, empirical studies</td>
<td>Science, the media, “real-world” stories, trusted advisors</td>
</tr>
<tr>
<td>Common methods of receiving information</td>
<td>Journals, scientific meetings</td>
<td>News media, staff, colleagues</td>
</tr>
<tr>
<td>Timeframe to action</td>
<td>Long</td>
<td>Short</td>
</tr>
<tr>
<td>Importance of disseminating results</td>
<td>Low to moderate</td>
<td>High</td>
</tr>
</tbody>
</table>

Source: Brownson et al., AJPM 2006; 30(2)
How receptive will policymakers be to health experts (aka researchers)?

Table 3. Factors affecting receptivity of policymakers to inputs of health experts

<table>
<thead>
<tr>
<th>Factor</th>
<th>Specific questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency of methods</td>
<td>Are the methods appropriate and transparent in their use and replication?</td>
</tr>
<tr>
<td>Plausibility of analysis</td>
<td>Does the analysis fit with the policymaker’s analysis?</td>
</tr>
<tr>
<td>Experts’ credentials</td>
<td>What are the personal credentials of the expert?</td>
</tr>
<tr>
<td></td>
<td>What are the credentials and prestige of the institution that they represent?</td>
</tr>
<tr>
<td>Perceived impartiality</td>
<td>Has the researcher shown impartiality in reaching conclusions and policy steps?</td>
</tr>
<tr>
<td></td>
<td>Who sponsored the expert’s study?</td>
</tr>
<tr>
<td></td>
<td>Does this create a conflict of interest?</td>
</tr>
<tr>
<td>Perceived track record</td>
<td>What are the expert’s previous efforts?</td>
</tr>
<tr>
<td>Perceived honesty</td>
<td>Has the expert adequately expressed uncertainty in framing a conclusion?</td>
</tr>
<tr>
<td>Involvement of policymakers and stakeholders</td>
<td>Have the policymaker and/or stakeholders been included in development of policy solutions?</td>
</tr>
<tr>
<td></td>
<td>Is the information from the expert locally relevant?</td>
</tr>
</tbody>
</table>

Adapted from Andrews, Busenberg, Cash et al., and Weiss.

Source: Brownson et al., AJPM 2006; 30(2)
Stories: A Critical Tool in a Policymakers Arsenal

• Make them “relevant” and “relatable”
• Focus on stories that:
  • Can be replicated in other jurisdictions
  • Can have a meaningful impact on outcome of interest
  • Can be sustained if policy adopted

CASE EXAMPLE: THE “JOSHUA” SCHOOL LUNCH EXAMPLE
Case Example: Food as a Reward in Elementary School Classrooms

Question: How would you translate this for a local school board or a state legislator?

Table 2. The percentages of surveys from school-level respondents reporting the use of food as a reward, by school year.

<table>
<thead>
<tr>
<th>Variable</th>
<th>2007-2008 (n=748)</th>
<th>2008-2009 (n=641)</th>
<th>2009-2010 (n=680)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of food as a reward for good academic performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, but discouraged</td>
<td>29.3</td>
<td>29.0</td>
<td>28.0</td>
</tr>
<tr>
<td>Yes, up to teacher</td>
<td>31.3</td>
<td>28.3</td>
<td>29.9</td>
</tr>
<tr>
<td>No</td>
<td>39.4</td>
<td>41.9</td>
<td>42.1</td>
</tr>
<tr>
<td>Use of food as a reward for good behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, but discouraged</td>
<td>29.1</td>
<td>28.5</td>
<td>29.2</td>
</tr>
<tr>
<td>Yes, up to teacher</td>
<td>29.6</td>
<td>30.4</td>
<td>30.1</td>
</tr>
<tr>
<td>No</td>
<td>41.4</td>
<td>41.2</td>
<td>40.7</td>
</tr>
</tbody>
</table>

Table 3. Results of multivariate logistic regression models to predict use of food as a reward for academic performance and for good behavior in US public elementary schools.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Reward for Academic Performance</th>
<th>Reward for Good Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds ratio (95% CI)</td>
<td>P value</td>
</tr>
<tr>
<td>Strong district policy</td>
<td>1.71 (1.09-2.67)</td>
<td>0.019*</td>
</tr>
<tr>
<td>Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007-2008</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>2008-2009</td>
<td>1.15 (0.89-1.47)</td>
<td>0.286</td>
</tr>
<tr>
<td>2009-2010</td>
<td>1.13 (0.87-1.80)</td>
<td>0.367</td>
</tr>
<tr>
<td>Percentage of students eligible for free or reduced-price lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest (≤33% eligible)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Middle (&gt;33%-66% eligible)</td>
<td>0.84 (0.61-1.15)</td>
<td>0.274</td>
</tr>
<tr>
<td>Highest (&gt;66%-100% eligible)</td>
<td>0.86 (0.59-1.27)</td>
<td></td>
</tr>
</tbody>
</table>
Translation Opportunities

Which of these are critical to a policymaker’s arsenal?

• Peer reviewed research papers, book chapters, and other publications
• Syntheses of existing research
• White papers and reports
• Policy briefs, executive summaries
• Appendices
• Press releases, video news releases
• Web postings
• Social media postings
Tasks in Research Translation

- **Organization**
  - Needs to be **coherent, logical, consistent, and economical**
  - Vary in style, length, content depending on type of product

- **Translation and simplification**
  - **Avoid specialized terminology and techniques**, detail about theory and methods, and other jargon
  - Use language that will be readily understandable to diverse audiences

- **Focus on population-level policies**
  - For example, focus on environmental and structural barriers (eg, zoning, sidewalks) to PA rather than lack of individual exercise
Research Translation cont.

- **Visual displays**
  - Find ways to effectively display information graphically/visually
  - Incorporate local data and context

- **Summaries**
  - Ability to briefly review why it’s an important issue and how proposed policy intervention can influence it
  - Use ‘sound bites’ and stay on message
Case Example 2: Safe Routes to School

• What are some of the major barriers as to why parents do not let their children walk or bike to school?

  • Safety/crime
  • Traffic
  • Distance
  • Lack of sidewalks
  • Lack of crossing guards
  • Lack of bike racks
  • Weather
  • Others?
Translating Research to Policy

- Key finding:
  - Schools in states that require crossing guards:
    - 70% less likely to report barriers to student walking/biking to school
    - 2.7 times more likely to allow students to bike to school

Question: How would you translate this into something actionable for policymakers at the state/local government levels?
Research Translation Products: Syntheses

- Incorporation/synthesis of findings from variety of studies
- Address multiple aspects of policy target
- Level of detail will depend on the particular product (e.g. policy brief vs. report)
- Synthesis of the synthesis in executive summary of longer documents
Research Translation Products:
Policy Briefs

• Should:
  • Contain clear and concise information
  • Written at ~8th grade reading level
  • No more than 1- to 2-pages including tables, figures, photos
  • Include references to more detailed literature
  • Contain contact information (you are the expert!)

• Dissemination
  • Use active, targeted means
  • Monitor and evaluate dissemination

Source: Dodson et al., *AJPM* (2012), 43(3S2)
Elements of a Policy Brief

- Catchy and informative title
- Compelling story
- Scale/importance of the problem
- Benefits of the policy
- Overview of evidence-based policy options
- Policy recommendations or “opportunities”
- Sources consulted or recommended

Source: Stamatakis et al., *J Phys Act Health* (2010), 7(Suppl 1)
Policy Analyses (or Syntheses/Research Reviews) vs. Policy Briefs

Table 2  Key Characteristics of Policy Analyses and Policy Briefs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Policy analysis</th>
<th>Policy brief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major objective</td>
<td>Analyzing and presenting alternatives available for solving public health problems</td>
<td>Presenting alternatives available for solving public health problems in an easily-digestible form</td>
</tr>
<tr>
<td>Primary audience</td>
<td>Decision makers/staffers/“specialists”</td>
<td>Decision makers/ policy makers/staffers/ advocates/“generalists”</td>
</tr>
<tr>
<td>Focus</td>
<td>Investigator and audience-driven</td>
<td>Audience-driven</td>
</tr>
<tr>
<td>Methods</td>
<td>Synthesis of existing research and theory to estimate consequences of alternative decisions</td>
<td>No primary research, descriptive review of published literature (e.g., systematic reviews)</td>
</tr>
<tr>
<td>Ideas/language</td>
<td>More technical</td>
<td>More simple</td>
</tr>
<tr>
<td>Length</td>
<td>Up to 20 pages</td>
<td>Up to 6 pages</td>
</tr>
</tbody>
</table>

Adapted from Weimer.

Source: Stamatakis et al., *J Phys Act Health* (2010), 7(Suppl 1)
From Research Synthesis to Issue Brief

24 page review

Influence of Competitive Food and Beverage Policies on Children’s Diets and Childhood Obesity

Research Review, July 2012

Abstract

Competitive foods is a term used to describe foods and beverages that generally compete with school meal programs. These foods and beverages are sold through vending machines, a la carte stations, in school stores and other venues. They are commonly referred to as “junk” foods, and they are often high in fat, cholesterol, sodium, sugar and/or salt. Many schools also sell a variety of unhealthy drinks to students, including high-fat milks and sugar-sweetened beverages (SSBs) such as cokes, sports drinks and high-sodium fruit drinks.

The influence of policies related to the sale of competitive foods is worth examining because the foods and drinks sold in school have a significant effect on children’s diets and their weight. Given the high prevalence of obesity among children and adolescents nationwide, it is important to understand how competitive foods and beverages are sold and consumed by students in school, as well as to identify effective strategies for improving the nutritional quality of these products.

Introduction

More than 25 million children and adolescents in the United States—nearly one in three young people—are obese or overweight. This foods and beverages available in schools have a significant impact on children’s diets and their weight. Children spend the majority of their waking hours in school for at least nine months of the year, hence schools are one potentially important setting for influencing the foods and beverages that they have access to on a regular basis.1 In fact, more than 50 percent of children and adolescents’ daily energy intake comes from school.

This research review examines the emerging evidence about the influence of competitive foods and beverage policies on children’s diets and childhood obesity. The research clearly shows a need for comprehensive policies that govern the sale and consumption of these foods and beverages in the school environment.

4-page issue brief

Influence of Competitive Food and Beverage Policies on Children’s Diets and Childhood Obesity

Issue Brief, July 2012

Introduction

More than 25 million children and adolescents in the United States—nearly one in three young people—are obese or overweight, putting them at risk for serious health problems. The foods and beverages available in schools have an influence on children’s diets and their weight. In fact, children and adolescents consume more than 35 percent of their daily calories at school.

Outside of meal programs, schools sell many foods and beverages to students through a la carte lines in the cafeteria, vending machines, school stores, snack bars, student-owned and other venues. Such foods and beverages often are high in fat, sodium, sugar and/or salt, and offer minimal nutritional value. Many schools also sell a variety of unhealthy drinks to students, including high-fat milks and sugar-sweetened beverages (SSBs) such as cokes, sports drinks and high-sodium fruit drinks.

Collectively, these foods and beverages sold at school contribute to some of school meal programs are known as competitive foods because they compete with school meal programs for students’ spending. Despite voluntary agreements by several schools and beverage manufacturers to remove unhealthy competitive foods from schools, the majority of public school children, particularly middle and high school students, still have easy access to them (Figure 3).

This brief examines the emerging evidence about the influence of competitive foods and beverage policies on children’s diets and childhood obesity. The research clearly shows a need for comprehensive policies that govern the sale and consumption of these foods and beverages in the school environment.

This issue brief is based on a research review prepared by Jamie Cherpelis, PhD, MS, Health Policy Center in the Institute for Health Research and Policy at the University of Illinois at Chicago. The full research review, which includes citations, is available at www.healthyeatingresearch.org and www.bridgingthegap.org.
To Be Effective, Policies Must Be Comprehensive

- Policies that only apply to some venues but not all (e.g., to a a cafeteria lines or vending machines, but not school stores) are not as effective as comprehensive policies that apply to all venues.

- Comprehensive policies are key to reducing students’ access and consumption of SSUs in schools. Policies that restrict or tax SSUs, if done right, can make a difference.

- While one set of policies may affect children and another set of policies may not, because some school districts do a policy that addresses foods sold outside of school meals, however, many schools in public bikes do not set guidelines for all competitive venues, nor do they align with current nutritional recommendations. Policies that are comprehensive can help set a national standard.

Conclusions and Policy Implications

The best evidence available indicates that policies on snack foods and beverages sold in school impact children’s diets and their risk for obesity. String policies that prohibit or restrict the sale of unhealthy competitive foods and drinks in schools are associated with lower proportions of overweight or obese students or lower rates of increase in student BMI. Such policies also may boost participation in school meal programs and increase food service revenues.

Research also suggests that when schools provide easy access to unhealthy snack foods and beverages, students consume more of them. Overall, studies have found that students tend to be higher in schools that sell unhealthy items in competitive venues. Because the school food environment affects the dietary behaviors and weight outcomes of millions of students across the country, implementing strong policies that support healthier eating could lead to sustained changes that would help reverse the childhood obesity epidemic, particularly if those changes were reinforced in environments outside of the school setting.

The federal government and many states, school districts and schools across the country have begun changing policies to create a healthier school environment. The following is a short summary of those efforts, including policy implications based on the findings reported in this brief.

At the District and School Level

The federal government required all school districts participating in federal child nutrition programs to implement a wellness policy by the 2006-07 school year. Because it was required to be a part of the wellness policy, many districts do not have a policy that addresses foods sold outside of school meals. However, many school districts do not set guidelines for all competitive venues, nor do they align with current nutritional recommendations. Policies that are comprehensive can help set a national standard.

At the Federal Level

As required by the U.S. Department of Agriculture, update national standards and beverages for documented efforts to develop and beverage plans.

At the State Level

In the mid-2000s, a state-level policy that provide guidance to implement this brief’s key strategies for reducing SSUs in schools. These are an almost immediate increase in law enforcement decision-makers.

About Healthy Eating Research

Healthy Eating Research is a national program of the Robert Wood Johnson Foundation. Technical assistance and direction are provided by the University of Minnesota School of Public Health under the direction of Dr. Jane H. Oliu, PhD, program director, and Karen M. Roper, MPH, deputy director. The Healthy Eating Research Program supports research to identify, analyze, and evaluate environmental and policy strategies that can promote healthy eating among children and prevent childhood obesity, especially in disadvantaged groups, to benefit children and adolescents ages 0-19. The program’s goals are to (1) identify effective policies and strategies, (2) develop research on relevant issues, and (3) increase the dissemination of research findings to policy makers and the public. For more information, visit www.hungerresearch.org.

At the Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation focuses on the pressing health and health care issues facing the nation, including obesity. This national, non-profit organization has a vision for a culture that promotes health and well-being. The Foundation works with a diverse group of organizations and individuals to identify solutions and achieve comprehensive, measurable, and timely change.

For 40 years, the Foundation has brought action, commitment, and a systematic, balanced approach to the problems that affect the health and health care of those we serve. When it comes to tackling America’s lead in health care and the costs, the Foundation expects to make a difference in your lifetime. For more information, visit www.rwjf.org. Follow the Foundation on Facebook or Twitter. www.facebook.com/theRWJF or www.twitter.com/RWJF.

Andrew Johnson, 14th Physiol 221 E
Princeton, NJ 08540, 2215
www.rwjf.org
Researchers at Healthy Eating Research and Bridging the Gap found that “[t]he best evidence available indicates that policies on snack foods and beverages sold in school impact children’s diets and their risk for obesity. Strong policies that prohibit or restrict the sale of unhealthy competitive foods and drinks in schools are associated with lower proportions of overweight or obese students, or lower rates of increase in student BMI” (Healthy Eating Research and Bridging the Gap, 2012, p. 3). 

Researchers for Healthy Eating Research and Bridging the Gap, Robert Wood Johnson Foundation-sponsored research programs examining environmental influences on youth diets and obesity, have concluded that strong policies that prohibit or restrict the sale of unhealthy competitive foods and drinks in schools improve children’s diets.
Chartbooks: Simple Way to Display a LOT of Information Graphically
Translating research for policy and advocacy

Table 4. Actions across advocacy continuum

<table>
<thead>
<tr>
<th>Raise the general awareness of issue</th>
<th>Communicate findings to policymakers</th>
<th>Actively lobby on behalf of particular issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publish a scientific article</td>
<td>Develop short policy summaries</td>
<td>Form and activate community-based coalitions</td>
</tr>
<tr>
<td>Publish a popular piece</td>
<td>Transform epidemiologic data into forms</td>
<td>Learn and use media advocacy techniques</td>
</tr>
<tr>
<td>Present findings at a professional meeting</td>
<td>Provide testimony at a legislative hearing</td>
<td>Write for newspapers on a specific issue (letters to the editor and editorials)</td>
</tr>
<tr>
<td>Present findings at a community meeting</td>
<td>Educate legislative staff members on public health issues</td>
<td>Meet with an elected official to get across a specific point of view</td>
</tr>
<tr>
<td>Issue a press release</td>
<td></td>
<td>Publicize the tactics of vested interests that are at odds with public health goals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support candidates who are of like mind</td>
</tr>
</tbody>
</table>

Source: Brownson et al., AJPM 2006; 30(2)
Interactive Communications

- Multiple channels, audiences
  - Presentations at academic conferences
  - Presentations at meetings of public health professionals, advocates
  - Briefings for policy makers, staff
  - Testimony at committee hearings, legislative sessions
  - Informal discussions
  - Testimony at trial
  - Press conferences, media interviews, etc.
Translation Example: Bridging the Gap
Wellness Policy Surveillance Reports

Vol. 1

Local Wellness Policies: Assessing School District Strategies for Improving Children’s Health

Vol. 2

School District Wellness Policies: Evaluating Progress and Potential for Improving Children’s Health Three Years After the Federal Mandate

Vol. 3 released

2/28/13
Translating Research: Wellness Policy Studies

- Research translation activities
  - Informal meetings on Capitol Hill
  - Presentations for USDA staff
  - Webinars for advocates, researchers, policy makers, school boards
  - Academic presentations

Vol. 1—7/09

Vol. 2—8/10
Policy Opportunity

Requirements for Implementation and Evaluation of Wellness Policies

The Child Nutrition and WIC Reauthorization Act of 2004 required wellness policies to include implementation plans. The following key findings and policy opportunities highlight areas where districts’ written policies exceeded federal requirements—by setting more stringent standards or addressing issues that were not required by the mandate—as well as areas where more progress is needed. Detailed data on all written policy provisions related to implementation that were examined in the study are available in Table1.

Key Findings
As of the beginning of the 2008–09 school year, most districts included plans for implementation in their written wellness policies as required by the federal mandate, which was a marked improvement over previous years. However, requirements for reporting on policy compliance and/or implementation, evaluation plans, and funding were limited. For example, three years after the wellness policy requirement took effect:

Policy Opportunities

Provide Adequate Resources to Support Wellness Policy Implementation
Lack of resources, including funding, for wellness policy implementation, monitoring and evaluation has been widely cited as a barrier to wellness policy implementation. Providing adequate resources to help school districts and schools implement and evaluate their wellness policies will continue to be a key issue for policy-makers at all levels of government.

Ensure That Implementation and Evaluation Are a High Priority for Districts and Schools
Evaluation and monitoring of wellness policy implementation by districts and schools will help inform Congress, states, districts and schools about the extent to which wellness policies are improving children’s health, as well as opportunities for improving school-based nutrition and physical activity environments.
“(3) a requirement that the local educational agency permit parents, students, representatives of the school food authority, the school board, school administrators, and the general public to participate in the development and periodic review and update of the local school wellness policy;

“(4) a requirement that the local educational agency inform and update the public (including parents, students, and others in the community) about the content and implementation of the local school wellness policy; and

“(5) a requirement that the local educational agency—

“(A) periodically measure and report on implementation of the local school wellness policy, including—

“(i) the extent to which schools under the jurisdiction of the local educational agency are in compliance with the local school wellness policy;

“(ii) the extent to which the local school wellness policy of the local educational agency compares to model local school wellness policies; and

“(iii) a description of the progress made in attaining the goals of the local school wellness policy; and

“(B) designate 1 or more local educational agency officials or school officials, as appropriate, to ensure that each school complies with the local school wellness policy.
Research Finding: Competitive Food Provisions in Wellness Policies are Weak
Healthy, Hunger-Free Kids Act of 2010 Language

SEC. 208. NUTRITION STANDARDS FOR ALL FOODS SOLD IN SCHOOL.

Section 10 of the Child Nutrition Act of 1965 (42 U.S.C. 1779) is amended—

(1) by striking the section heading and all that follows through “(a) The Secretary” and inserting the following:

“(a) IN GENERAL.—The Secretary”; and

(2) by striking subsection (b) and inserting the following:

“(b) NATIONAL SCHOOL NUTRITION STANDARDS.—

“(1) PROPOSED REGULATIONS.—

“(A) IN GENERAL.—The Secretary shall—

“(i) establish science-based nutrition standards for foods sold in schools other than foods provided under this Act and the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.); and

“(ii) not later than 1 year after the date of enactment of this paragraph, promulgate proposed regulations to carry out clause (i).
• Tobacco taxes and tobacco use - publications
  • Many peer reviewed research papers, book chapters, and other publications
  • White papers and reports for non-academic audiences
• Write for policy impact
  • Do NOT say: “these findings have policy implications”
  • DO SAY: “raising the cigarette excise tax by $1.00 per pack will prevent tens of thousands of youth from initiating cigarette smoking”
• Tobacco taxes and tobacco use – syntheses
Materials Development & Documents

- Tobacco taxes and tobacco use – reports, briefs, etc.
Interactive Communications

- Multiple channels, audiences
  - Presentations at academic conferences
  - Presentations at meetings of public health professionals, advocates
  - Briefings for policy makers, staff
  - Testimony at committee hearings, legislative sessions
  - Informal discussions
  - Testimony at trial
  - Press conferences, media interviews, etc.
CASE STUDY: IMPACT OF TOBACCO TAX INCREASES
Overview of Cigarette Taxes and Pricing

Author: Frank Chaloupka, Ph.D., University of Illinois at Chicago

Review Panel: William Evans, Ph.D., University of Maryland, Matthew Farrelly, Ph.D., Research Triangle Institute, John Tauras, Ph.D., University of Illinois at Chicago

Introduction: Over the past few years, all but a few states and several communities have adopted substantial increases in cigarette and other tobacco product excise taxes.

These tax increases have raised many questions about their role in reducing the health and other consequences of tobacco use; the impact of increased cigarette smuggling and other tax evasion activities on cigarette tax revenues; their economic impact; and their impact on smoking behaviors (particularly in high-risk populations such as youth, young adults, and pregnant women).

During the last ten years, SAPRP has funded 24 studies examining a variety of issues related to cigarette and other tobacco product taxation and pricing.
Tobacco Taxes: A Win-Win-Win for Cash-Strapped States

February 10, 2010

Special Reports
A significant cigarette tax rate increase in South Carolina would produce a large, sustained increase in state tobacco tax revenues

Frank J. Chaloupka  
Distinguished Professor  
Department of Economics, College of Liberal Arts & Sciences  
Division of Health Policy and Administration, School of Public Health  
University of Illinois at Chicago  
1747 West Roosevelt Rd., Room 558  
Chicago, IL 60608  
312-413-2287  
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EXHIBIT A

STATE EXPERIENCES WITH LARGE CIGARETTE TAX INCREASES 2002-2008
REDUCED PACK SALES AND INCREASED REVENUES

<table>
<thead>
<tr>
<th>State</th>
<th>Effective Date</th>
<th>Tax Increase Amount (per pack)</th>
<th>New State Tax Rate (per pack)</th>
<th>State Pack Sales Decline</th>
<th>Nationwide Pack Sales Trend</th>
<th>Revenue Increase</th>
<th>New Revenue (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>4/15/07</td>
<td>$0.20</td>
<td>-25.5%</td>
<td>-0.6%</td>
<td>13.4%</td>
<td>+$425</td>
<td>$1,300</td>
</tr>
<tr>
<td>Colorado</td>
<td>4/15/09</td>
<td>$0.10</td>
<td>-15.7%</td>
<td>-1.4%</td>
<td>12.4%</td>
<td>+$371</td>
<td>$1,031</td>
</tr>
<tr>
<td>Connecticut</td>
<td>4/15/11</td>
<td>$0.10</td>
<td>-12.5%</td>
<td>-2.0%</td>
<td>11.1%</td>
<td>+$151</td>
<td>$852</td>
</tr>
<tr>
<td>Delaware</td>
<td>4/15/15</td>
<td>$0.05</td>
<td>-8.1%</td>
<td>-0.9%</td>
<td>10.3%</td>
<td>+$140</td>
<td>$576</td>
</tr>
<tr>
<td>Florida</td>
<td>10/1/07</td>
<td>$0.05</td>
<td>-6.0%</td>
<td>-0.5%</td>
<td>10.1%</td>
<td>+$134</td>
<td>$516</td>
</tr>
<tr>
<td>Georgia</td>
<td>12/15/08</td>
<td>$0.05</td>
<td>-4.4%</td>
<td>-0.4%</td>
<td>9.8%</td>
<td>+$117</td>
<td>$458</td>
</tr>
<tr>
<td>Hawaii</td>
<td>12/15/09</td>
<td>$0.05</td>
<td>-2.3%</td>
<td>-0.2%</td>
<td>9.5%</td>
<td>+$110</td>
<td>$437</td>
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<tr>
<td>Indiana</td>
<td>12/15/10</td>
<td>$0.05</td>
<td>-1.0%</td>
<td>-0.1%</td>
<td>9.2%</td>
<td>+$104</td>
<td>$419</td>
</tr>
<tr>
<td>Iowa</td>
<td>12/15/11</td>
<td>$0.05</td>
<td>-0.5%</td>
<td>+0.0%</td>
<td>9.0%</td>
<td>+$89</td>
<td>$397</td>
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<tr>
<td>Kansas</td>
<td>12/15/12</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>8.8%</td>
<td>+$73</td>
<td>$348</td>
</tr>
<tr>
<td>Kentucky</td>
<td>12/15/13</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>8.6%</td>
<td>+$68</td>
<td>$329</td>
</tr>
<tr>
<td>Louisiana</td>
<td>12/15/14</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>8.4%</td>
<td>+$63</td>
<td>$310</td>
</tr>
<tr>
<td>Maine</td>
<td>12/15/15</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>8.2%</td>
<td>+$58</td>
<td>$293</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>12/15/16</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>8.0%</td>
<td>+$54</td>
<td>$278</td>
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<tr>
<td>Michigan</td>
<td>12/15/17</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>7.8%</td>
<td>+$50</td>
<td>$265</td>
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<tr>
<td>Minnesota</td>
<td>12/15/18</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>7.6%</td>
<td>+$46</td>
<td>$252</td>
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<tr>
<td>Missouri</td>
<td>12/15/19</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>7.4%</td>
<td>+$43</td>
<td>$241</td>
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<tr>
<td>Nebraska</td>
<td>12/15/20</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>7.2%</td>
<td>+$40</td>
<td>$231</td>
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<tr>
<td>Nevada</td>
<td>12/15/21</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>7.0%</td>
<td>+$37</td>
<td>$222</td>
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<tr>
<td>New Jersey</td>
<td>12/15/22</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>6.8%</td>
<td>+$34</td>
<td>$214</td>
</tr>
<tr>
<td>New Mexico</td>
<td>12/15/23</td>
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<td>6.6%</td>
<td>+$32</td>
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<tr>
<td>New York</td>
<td>12/15/24</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>6.4%</td>
<td>+$29</td>
<td>$201</td>
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<tr>
<td>Ohio</td>
<td>12/15/25</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>6.2%</td>
<td>+$27</td>
<td>$195</td>
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<tr>
<td>Oklahoma</td>
<td>12/15/26</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>6.0%</td>
<td>+$25</td>
<td>$190</td>
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<tr>
<td>Oregon</td>
<td>12/15/27</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>5.8%</td>
<td>+$23</td>
<td>$185</td>
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<tr>
<td>Pennsylvania</td>
<td>12/15/28</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>5.6%</td>
<td>+$21</td>
<td>$180</td>
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<tr>
<td>South Dakota</td>
<td>12/15/29</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>5.4%</td>
<td>+$19</td>
<td>$175</td>
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<tr>
<td>Tennessee</td>
<td>12/15/30</td>
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<td>0.0%</td>
<td>5.2%</td>
<td>+$17</td>
<td>$170</td>
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<tr>
<td>Texas</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>5.0%</td>
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<td>$165</td>
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<tr>
<td>Utah</td>
<td>12/15/32</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>4.8%</td>
<td>+$15</td>
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<tr>
<td>Virginia</td>
<td>12/15/33</td>
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<td>0.0%</td>
<td>4.6%</td>
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<td>Washington</td>
<td>12/15/34</td>
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<td>+0.0%</td>
<td>0.0%</td>
<td>4.4%</td>
<td>+$13</td>
<td>$152</td>
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<tr>
<td>West Virginia</td>
<td>12/15/35</td>
<td>$0.05</td>
<td>+0.0%</td>
<td>0.0%</td>
<td>4.2%</td>
<td>+$12</td>
<td>$148</td>
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</tbody>
</table>

Consortium of state cigarette tax incomes from the 15 months before and after the tax increase.  
Nationwide consumption declines are for the 85 states and DC.  
Revenues are for the first four months following the tax increase.
Revenue and Public Health Impact of a $1.00 Cigarette Tax Increase in Illinois

- Current state cigarette tax: 68 cents per pack (52 among states)
- Health care costs attributable to smoking in IL: $4.4 billion
- Costs of smoking to Medicaid program: $1.6 billion
- Annual increase in revenue from raising cigarette tax by $1.00 per pack: $377 million
- Additional revenue from raising other tobacco product taxes to similar levels: $38.8 million
- Illinois kids prevented from becoming smokers by tax increase: 77,600
- Illinois adult smokers quitting because of tax increase: 59,400
- Current Illinois residents saved from premature death caused by smoking: 59,200

For maximum revenue and public health impact:
- Raise taxes on all tobacco products to rate equivalent to that on cigarettes; doing this will not only increase the revenue raised by the tax increase, but will add to the public health impact by reducing opportunities for smokers to substitute to cigars, RYO-tobacco, and smokeless tobacco products which are currently taxed at lower rates.
- Adopt a one-time increase in the tax rather than phasing in the $1.00 increase in multiple, smaller increases.
- Include an inventory or floor stock tax so as to ensure that the state receives all of the revenues to which it is entitled and to prevent stockpiling by retailers and consumers in anticipation of the tax increase.
- Adopt the new generation of high-tech tax stamps, license all tobacco retailers, and increase enforcement efforts so as to minimize existing tax evasion and any increase in tax evasion that would result from the tax increase.
- Allow for regular, administrative increases in tax rates that ensure that the tax is adjusted to keep pace with inflation and to maintain the level of revenues generated by the tax over time.

For more information on the revenue and public health impact of a $1.00 cigarette tax increase in Illinois, please contact Dr. Frank Chaloupka, director of the Bridging the Gap research project, at fpc@uic.edu.
Case Example: Boise, Idaho (2011)
Cigarette Tax Report

- One example: Boise, Idaho, 2/24/11
  - Release of ID tax report
  - Coordination with CTFK, ALA
  - Keynote talk at conference for advocates, coalition members, state/local health department officials, legislators and staff
  - Multiple radio, press interviews
  - Taping for coalition website
  - Informal meetings with various legislators (proponents and opponents)
  - Taping for NBC’s Viewpoint political talk show
Tobacco Taxation in Idaho

- Impact of raising the state cigarette excise tax by $1.25
  - Would be 16th highest state tax
  - A bit higher than average tax in non-tobacco growing/manufacturing states
- If raised to $1.82:
  - Over $48 million in additional tax revenues in first year
  - Almost $3 million more if other tobacco product tax rate increased to same level
  - Sustained increases in revenues over time
Estimated Future Cigarette Tax Revenues, Idaho

- Without 2012 Increase
- With $1.25 Increase

Source: Chaloupka and Huang, 2011
Tobacco Taxation in ID

• Impact of raising the state cigarette excise tax by $1.25
  • Nearly 7,800 adult smokers would quit
  • Almost 12,500 fewer kids would take up smoking
  • Prevent about 6,000 premature deaths from smoking among current population
  • Reduce the $319 million spent to treat diseases caused by smoking
    • $83 million through Medicaid
CASE STUDY: SUGAR-SWEETENED BEVERAGE TAXATION
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%

Source: Andreyeva, et al., 2010
Food Prices and Weight Outcomes

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

• Higher prices for sugary foods would significantly reduce prevalence of overweight and obesity among adults (Miljkovic et al., 2008)

• 10% increase in fast food prices would reduce prevalence of adolescent obesity by almost 6% (Powell, et al., 2007)

• 20% increase in SSB prices would reduce consumption by about 24% (Powell et al., 2013)

• Weight outcomes among low-income populations and those with higher BMI more responsive to prices
  • BMI of kids in families below poverty level about 50% more responsive to F&V prices
  • BMI for kids at unhealthy weight levels 39% more responsive to F&V prices
  • BMI of adolescents at unhealthy weight levels about 4 times more responsive to F&V and fast food prices.

Source: Powell and Chaloupka, 2009; Chaloupka et al., 2009, Powell et al, 2013
Emerging evidence on prices suggests that significant changes in relative prices of healthy and unhealthy foods could reduce BMI and likelihood of obesity

- Increases in prices of less healthy foods and beverages
  - taxes
  - elimination of corn subsidies
  - disallow purchases under food assistance programs

- Reductions in prices of more healthy foods and beverages
  - subsidies
  - expanded or favored treatment under food assistance programs

Sugar Sweetened Beverage Taxes
Public Health Rationale for SSB 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.

$y = 16.44 \ln(x) + 6.1142$

$R^2 = 0.6656$

% Adults Drinking One or More Sodas per Day

% Oveweight

Who Are Obese
State Regular, Sugar-Sweetened Soda Sales Tax Rates
(as of July 1, 2011)

Sales Tax Rate
- 0 (16 states)
- >0-4.00 (9 states)
- >4.00-6.00 (15 states)
- >6.00-6.99 (7 states)
- ≥7.00 (4 states)

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, 2011
SSB TAXES & PRICES

CONSUMPTION AND WEIGHT
Existing Evidence

- Growing literature demonstrating the higher prices for SSBs lead to reductions in SSB consumption
- Andreyeva, et al.’s (2010) comprehensive review concluded that price elasticity of soft drink consumption was -0.78
  - Price elasticity: % change in consumption resulting from 1% price change
  - 10% increase in soft drink prices would reduce consumption by nearly 8%
- Powell et al. (2013) updated the review and found a price elasticity of -1.2: a tax that raises prices by 20% will reduce consumption by 24%.
- Limited, mixed evidence on impact of taxes/prices on weight outcomes
Synthesis of Existing Research

- Highlights limited research on prices and obesity
- Draws on success of tobacco taxes in reducing tobacco use
Application of Existing Evidence

- Revenue generating potential of tax
  - SSB Tax calculator at:
    - [http://www.yaleruddcenter.org/sodatax.aspx](http://www.yaleruddcenter.org/sodatax.aspx)

- SSB taxes: ↑ revenue-generating potential
  - $0.01 tax/ounce would generate:
    - US-wide: > 13 billion USD
    - California: >1 billion USD
    - New York City: >340 million USD
    - Chicago, IL: >120 million USD

- Earmarking tax revenues for obesity prevention efforts would add to impact of tax
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:

- Excise tax on SSB
  - Increase in Price
    - Reduced SSB Consumption
      - Lower Incident Type 2 Diabetes
        - Lower Medical Cost
      - Lower Daily Caloric Intake
        - Lower Obesity
    - Net Increase Tax Revenue
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:
- Reduction in SSB consumption
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:
  - Frequency of SSB consumption
### Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:
  - Incidence of diabetes

<table>
<thead>
<tr>
<th></th>
<th>Ages 2-19</th>
<th>Ages 20-44</th>
<th>Ages 45-64</th>
<th>Ages 65+</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>1 cent - all</td>
<td>3</td>
<td>729</td>
<td>1,252</td>
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<td>1 cent - SSBs only</td>
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<td>1,094</td>
<td>1,878</td>
<td>465</td>
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<td>2 cents - all</td>
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<td>1,459</td>
<td>2,505</td>
<td>620</td>
<td>4,590</td>
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<td>2 cents - SSBs only</td>
<td>10</td>
<td>2,188</td>
<td>3,757</td>
<td>930</td>
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</table>
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:
  - Diabetes related health care costs

![Bar chart showing the impact of different tax rates on diabetes related health care costs.]

- 2 cents - SSBs only: $41.3 million
- 2 cents - all: $27.6 million
- 1 cent - SSBs only: $20.7 million
- 1 cent - all: $13.8 million
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:
  - Reductions in body weight
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:
  - Obesity prevalence

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male Baseline</th>
<th>Male 1 cent - all</th>
<th>Male 1 cent - SSBs only</th>
<th>Male 2 cents - all</th>
<th>Male 2 cents 0 SSBs only</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-17</td>
<td>16.8%</td>
<td>23.5%</td>
<td>25.2%</td>
<td>21.9%</td>
<td>24.0%</td>
</tr>
<tr>
<td>18-44</td>
<td>32.8%</td>
<td>25.2%</td>
<td>21.9%</td>
<td>23.2%</td>
<td>24.0%</td>
</tr>
<tr>
<td>45-64</td>
<td>30.4%</td>
<td>21.9%</td>
<td>23.2%</td>
<td>24.0%</td>
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<tr>
<td>65+</td>
<td>31.6%</td>
<td>24.0%</td>
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<td>24.0%</td>
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</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female Baseline</th>
<th>Female 1 cent - all</th>
<th>Female 1 cent - SSBs only</th>
<th>Female 2 cents - all</th>
<th>Female 2 cents 0 SSBs only</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-17</td>
<td>15.0%</td>
<td>21.9%</td>
<td>23.2%</td>
<td>24.0%</td>
<td>24.0%</td>
</tr>
<tr>
<td>18-44</td>
<td>22.7%</td>
<td>22.7%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
</tr>
<tr>
<td>45-64</td>
<td>23.2%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
</tr>
<tr>
<td>65+</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
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</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total Baseline</th>
<th>Total 1 cent - all</th>
<th>Total 1 cent - SSBs only</th>
<th>Total 2 cents - all</th>
<th>Total 2 cents 0 SSBs only</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-17</td>
<td>15.9%</td>
<td>22.7%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
</tr>
<tr>
<td>18-44</td>
<td>22.7%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
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<tr>
<td>45-64</td>
<td>23.2%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
</tr>
<tr>
<td>65+</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
<td>24.0%</td>
</tr>
</tbody>
</table>
Application of Existing Evidence

- Efforts to use existing evidence to model impact on various outcomes:

- **Obesity-related health care costs**
  - 2 cents - SSBs only: $301.6 million
  - 2 cents - all: $201.0 million
  - 1 cent - SSBs only: $150.8 million
  - 1 cent - all: $100.5 million
For more information:
http://www.bridgingthegapresearch.org/research/sodasnack_taxes/
Elements of a Policy Briefing

- Opening and Problem Statement
- Background and Objectives
- Findings Related to Objectives
- Methods of Research and Analysis
- Data Supporting the Findings
- Recommended Solutions to Problem
- Questions from Audience
- Closing and Summary

Criteria for Evaluating Policy Briefings and Presentations

- Effectiveness of elements of briefing
- Appropriateness of briefing to characteristics of audience
- Logic, organization, and flow
- Use of slides or other visual displays
- Ability to capture attention
- Benefits and costs to audience

Policy Research - Key Strategies

- Identify policy relevant research questions
- Obtain/collection appropriate data to address these questions
- Include clear statement of key findings and policy implications in resulting publications
- Work with other interested groups and use variety of approaches to disseminate policy relevant findings
- Listen to policy makers, advocates, and others to identify unanswered questions for further research
Questions?

Contact for further information:
Jamie F. Chriqui, PhD, MHS
Sr. Research Scientist
Director of Policy Surveillance
Health Policy Center, IHRP, SPH, UIC
Email: jchriqui@uic.edu