Sin Taxes and Health

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Overview

• Health & Economic Impact of Non-Communicable Diseases
• Impact of Tobacco, Alcohol, and Food & Beverage Taxes on Use and Consequences of Use
• Maximizing Health Impact of Taxes
Health & Economic Impact of NCDs
Leading Causes of Death Globally

Other Conditions include communicable diseases, maternal/perinatal conditions, and nutritional deficiencies
NCD Risks

Fig. 1.5a Probability of dying from the four main noncommunicable diseases between the ages of 30 and 70 years, comparable estimates, 2012

Source: WHO, 2014
Economic Consequences of NCDs

Large economic burden from NCDs:

- Considerable, growing health care costs from treating NCDs
- Significant lost productivity
- Cause of poverty
- Account for much of inequalities in health
Growing Economic Costs

Figure 2: Cumulative NCD loss, beginning in 2011

Source: The Global Economic Burden of Non-communicable Diseases
Prepared by the World Economic Forum and the Harvard School of Public Health (2011)
# NCDs: Major Risk Factors

<table>
<thead>
<tr>
<th>Major NCD</th>
<th>Tobacco Use</th>
<th>Unhealthy Diet</th>
<th>Physical Inactivity</th>
<th>Harmful Use of Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Disease &amp; Stroke</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Diabetes</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Cancer</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Chronic Lung Disease</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: WHO, 2010; Mackay, 2012
Taxes, Prices & Health Behaviors
"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.

Adult Prevalence & Price, Brazil

Adult Smoking Prevalence and Cigarette Price
Brazil, Inflation Adjusted, 2006-2013

Sources: Ministry of Health, Brazil; EIU; World Bank
Taxes, Prices & Smoking Cessation

Monthly Quit Line Calls, United States  
11/04-11/09

4/1/09 Federal Tax Increase

1/1/08 WI Tax Increase

www.bridgingthegapresearch.org
Cigarette Price & Youth Smoking Prevalence
High School Seniors, United States, 1991-2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Price per Pack (1/14 Dollars)</th>
<th>Smoking Prevalence, 12th Grade Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>$2.75</td>
<td>36</td>
</tr>
<tr>
<td>1994</td>
<td>$5.00</td>
<td>31</td>
</tr>
<tr>
<td>1997</td>
<td>$4.25</td>
<td>31</td>
</tr>
<tr>
<td>2000</td>
<td>$5.75</td>
<td>16</td>
</tr>
<tr>
<td>2003</td>
<td>$5.00</td>
<td>21</td>
</tr>
<tr>
<td>2006</td>
<td>$5.00</td>
<td>26</td>
</tr>
<tr>
<td>2009</td>
<td>$4.25</td>
<td>26</td>
</tr>
<tr>
<td>2012</td>
<td>$6.50</td>
<td>16</td>
</tr>
</tbody>
</table>

Sources: Tax Burden on Tobacco, BLS, MTF, and author’s calculations

www.bridgingthegapresearch.org
Differential Impact of Taxes

Source: Adapted from Önder & Yürekli, 2014

<table>
<thead>
<tr>
<th>Category</th>
<th>Change in Consumption</th>
<th>Change in Taxes Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorest</td>
<td>-35.3%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td>8.5%</td>
</tr>
<tr>
<td>Richest</td>
<td></td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Change in Consumption  Change in Taxes Paid
France: smoking, tax and male lung cancer, 1980-2010

Lung cancer death rates per 100,000 (divided by four): men age 35-44

Relative price

# cigarettes/adult/day

Source: Jha, in progress
Similarly extensive econometric and other research shows that higher prices for alcoholic beverages significantly reduce drinking:

- 10 percent price increase would reduce:
  - Beer consumption by 1.7 to 4.6 percent
  - Wine consumption by 3.0 to 6.9 percent
  - Spirits consumption by 2.9 to 8.0 percent
  - Overall consumption by 4.4 percent
  - Heavy drinking by 2.8 percent
  - Generally larger effects on youth and young adults

Source: Wagenaar et al., 2009
Alcohol Prices & Consequences

Econometric and other research shows that higher prices for alcoholic beverages significantly reduce:

• Drinking and driving, fatal and non-fatal traffic crashes
• Deaths from liver cirrhosis, acute alcohol poisoning, alcohol-related cancers, cardiovascular diseases, and other health consequences of excessive drinking
• Violence (including spouse abuse, child abuse, and suicide) and other crime
• Other consequences of drinking, including work-place accidents, teenage pregnancy, and incidence of sexually transmitted diseases

Source: Xin & Chaloupka, 20129; Wagenaar et al., 2010
Prices and Food & Beverage Consumption

Growing economic evidence on the impact of food/beverage prices on consumption

• Our recent review finds strong evidence of impact of food/beverage prices on consumption, with 10% increase in own-price leading to reductions in:
  • Sugar-sweetened beverage consumption by 12.1%
  • Fruit consumption by 4.9%
  • Vegetable consumption by 4.8%
  • Fast food consumption by 5.2%

Source: Powell, et al., 2013
Sweet & Savory Snack Prices & Consumption Percentage Change, 2000-2014, Selected Countries

Source: Euromonitor, 2015, and author’s calculations
Soft Drink Prices & Consumption
Percentage Change, 2000-2014, Selected Countries

Source: Euromonitor, 2015, and author’s calculations
Limited, but rapidly growing economic research on the impact of food/beverage prices on weight outcomes

- The weight of the evidence increasingly indicates that changes in relative prices for healthier and less healthy foods will affect weight outcomes, with greater impact on:
  - Lower income, less educated populations
  - Younger populations
  - Populations at greater risk for obesity

Source: Powell, et al., 2013
Soda Consumption & Obesity
Selected Countries

Source: Soda consumption from Euromonitor, 2011; Obesity prevalence from OECD Health Data, 2005
Change in Soft Drink Affordability 2000-2013, Selected Countries

Source: Euromonitor, 2015, and author’s calculations
Fiscal Policy & NCDs

Fig. 1.9 Fiscal interventions to address NCD risk factors, 2013, by WHO region and by World Bank income group.

- Taxation on alcohol
- Taxation on high sugar content food and non-alcoholic beverages
- Price subsidies for healthy foods
- Taxation on tobacco
- Taxation on high fat foods
- Taxation incentives to promote physical activity

AFR = African Region, AMR = Region of the Americas, SEAR = South-East Asia Region, EUR = European Region, EMR = Eastern Mediterranean Region, WPR = Western Pacific Region.
Importance of Tax Structure

For maximum health impact:

• Excise taxes better than VAT/GST
• Specific excises better than *ad valorem* excises
• Need to adjust specific taxes to ensure impact not eroded by inflation, income growth
• Tax like products at same rate
• Strengthen tax administration, enforcement to minimize tax avoidance and tax evasion
• Allocate tax revenues to health promotion programs

**bridging the gap**
Industries and allies use several common arguments in opposition to tax increases:

- Won’t have the intended impact in terms of reducing use and consequences
- Will lead to extensive tax avoidance and tax evasion
- Will harm poor and working class consumers
- Will lead to massive job losses

*Arguments are either false or greatly overstated*
Summary
Summary

- Higher tobacco and alcohol taxes, and new sugary beverage taxes will significantly reduce consumption of taxed products
- Reduced consumption will lead to fewer non-communicable diseases
- Counterarguments about negative economic impact false or greatly overstated
- Taxes generally considered one of the “best buys” in NCD prevention
For more information:

Bridging the Gap
http://www.bridgingthegapresearch.org

Tobacconomics
http://www.tobacconomics.org

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