Impact of Health Policy on Cancer Prevention

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Overview

• “Best Buys” in Cancer and other NCD prevention
• Impact of Tobacco, Alcohol, and Sugary Beverage Taxes on Use and Consequences of Use
• Myths and Facts About Economic Impact of Taxes
“Best Buys” in Cancer & Other NCD Prevention
# 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>
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<tbody>
<tr>
<td>Heart Disease &amp; Stroke</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Diabetes</td>
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<tr>
<td>Cancer</td>
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<td>Chronic Lung Disease</td>
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Source: WHO, 2010; Mackay, 2012
“Best Buys” - Tobacco Use

- Increase excise taxes and prices on tobacco products
- Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages
- Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship
- Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport
- Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second hand smoke

Source: WHO 2017
"Best Buys" - Alcohol Use

- Increase excise taxes on alcoholic beverages
- Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising
- Enact and enforce restrictions on the physical availability of retailed alcohol

Source: WHO 2017
“Best Buys” – Unhealthy Diet

• Reduce salt intake through the reformulation of food products to contain less salt and the setting of target levels for the amount of salt in foods and meals

• Reduce salt intake through the establishment of a supportive environment in public institutions such as hospitals, schools, workplaces and nursing homes, to enable lower sodium options to be provided

• Reduce salt intake through a behaviour change communication and mass media campaign

• Reduce salt intake through the implementation of front-of-pack labelling

Source: WHO 2017
Unhealthy Diet – Other Cost-Effective Interventions

- Reduce sugar consumption through effective taxation on sugar-sweetened beverages
- Eliminate industrial trans-fats through the development of legislation to ban their use in the food chain

Source: WHO 2017
Impact of Taxes & Prices on Unhealthy Behaviors
"Sugar, rum, and tobacco, are commodities which are nowhere necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation."
Tobacco Consumption and Cigarette Prices
New Zealand, 1990-2013, Inflation Adjusted

Price per Pack, 2014 NZ Dollars

Tobacco, Grams per Capita

Sources: EIU, World Bank and OECD

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Adult Prevalence & Price, Brazil
Inflation Adjusted, 2006-2013

Sources: Ministry of Health, Brazil; EIU; World Bank

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

4/1/09 Federal Tax Increase
1/1/08 WI Tax Increase

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Cigarette Price & Youth Smoking Prevalence
Chile, 2000-2015

Source: Paraje, 2017
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Price, Consumption & Lung Cancer, France Inflation Adjusted, 1980-2010

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

Relative price

# cigarettes/adult/day

Sources: Jha & Hill, 2012

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Chapter 4, Conclusion 1:

A substantial body of research, which has accumulated over many decades and from many countries, shows that significantly increasing the excise tax and price of tobacco products is the single most consistently effective tool for reducing tobacco use.
Taxes & Tax Revenues, South Africa
Inflation Adjusted, 1961-2012

Sources: Blecher & Van Walbeek, 2014

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The Addis Ababa Action Agenda states:

“… price and tax measures on tobacco can be an effective and important means to reduce tobacco consumption and health-care costs, and represent a revenue stream for financing development in many countries”
Extensive econometric and other research shows that higher prices for alcoholic beverages significantly reduce drinking:

- 10 percent price increase would reduce:
  - Overall consumption by 5.1% to 7.7% in HICs
  - Overall consumption by 6.4% in LMICs
- Tax/price increases reduce all aspects of drinking
  - Prevalence, frequency, intensity
- Generally larger effects on youth and young adults

Source: Chaloupka, et al., forthcoming
Distilled Spirits Prices & Sales
Ukraine, Inflation Adjusted, 2002-2016

Sources: Chaloupka, et al., forthcoming

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Beer Taxes & Binge Drinking Prevalence
United States, 2010

Source: Xuan et al., 2013

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Alcohol Taxes, Prices & Consequences

- Econometric and other research shows that higher prices for alcoholic beverages significantly reduce:
  - Drinking and driving, traffic crashes, and motor-vehicle accident fatalities
  - 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
Federal Beer Tax & Tax Revenues
United States, Inflation Adjusted, 1945-2013

Source: Brewers Almanac, 2013, ATTTB, 2014, and author’s calculations
Extensive economic research on the effects of prices on food/beverage consumption

- Our recent review concludes 10% increase in own-price would reduce:
  - 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
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

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Soft Drink Prices & Consumption
Percentage Change, 2000-2014, Selected Countries

Source: Euromonitor, 2015, and author’s calculations

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Sugary Drink Tax - Mexico

• Mexico implemented peso-per-liter tax on SSBs in 2014
  • Increased prices for SSBs relative to non-taxed beverages
    • about 10% price increase
    • pass through varies by type, size, location
  • Generated nearly 16 billion pesos in new revenue in first year
  • Also implemented a ‘junk food’ tax of 8% at the same time

Sources: Colchero, et al., 2015
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Impact of SSB Tax on Sales
Mexico, 2007-2016

Significant reductions in SSB sales:
• 6% drop in 2014
• 8% drop in 2015
• 11% drop in first half of 2016

5.2% increases in bottled water sales


Impact of SSB Tax on Household Purchases
Mexico, by Income Group, 2014-2015

Source: Colchero, et al., Health Affairs, 2017
Impact of SSB Tax on Purchases Mexico, by Purchase Level, 2014

• Greatest impact on heaviest consumers
  – Highest purchasers:
    • 31% of households, purchased average of 157 liters of SSB/capita/yr
      – 10% reduction in purchases following tax
  – Middle purchasers:
    • 40% of households, purchased average of 60 liters of SSB/capita/yr
      – 8% reduction of taxed beverages post-tax
  – Light and non purchasers:
    • Remaining households; small impact on light purchasers

Ng SW, Rivera J, Popkin B, Colchero MA. Did high purchasers respond differently to the excise tax on sugar-sweetened beverages in Mexico?
Oppositional Arguments

- Myths & Facts
Sugary Drink Taxes, January 2018

http://www.abc.net.au/news/2018-01-07/calls-for-a-sugar-tax-are-back-so-it-is-going-to-happen/9309386
Oppositional Arguments

- Massive job losses as consumption falls in response to higher taxes and other control policies
- Poor adversely affected by higher taxes
- Increased tax avoidance and tax evasion in response to higher taxes
Excise Taxes and Jobs

Industries tell only part of story:

• Focus on the gross impact:
  • New tax or tax increase will lead to decreased consumption of taxed product
  • Results in loss of some jobs dependent on production of taxed product

• Ignore the net impact:
  • Money not spent on taxed product will be spent on other goods and services
  • New/increased tax revenues spent by government
    • *Offsetting job gains in other sectors*
Who Pays & Who Benefits
Turkey, 25% Cigarette Tax Increase

Change in Consumption
Change in Taxes Paid

www.tobacconomics.org

Source: Adapted from Önder & Yürekli, 2014
Incremental Revenues for Health and the Poor, Philippines, 2001-2016

Source: Adapted from Jeremias Paul, 2017
Illicit Cigarette Market Share & Cigarette Prices, 2012

y = -0.0076x + 0.1752
R² = 0.0496

Sources: NCI & WHO, 2016
Illicit Cigarette Market Share & Corruption, 2011

_sources: NCI & WHO, 2016_

_web: www.tobacconomics.org_
Cigarette Consumption: Duty Paid, Illicit, and Cross-Border Shopping, United Kingdom, 2000-01 – 2013-14

Source: HM Revenue & Customs, 2014

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Conclusions
Conclusions

• Higher tobacco and alcohol taxes, and new sugary beverage taxes will significantly reduce consumption

• Reduced consumption will lead to fewer cases of cancer, cardiovascular disease, diabetes, and other non-communicable diseases

• Counterarguments about negative economic impact false or greatly overstated

• Taxes generally considered one of the “best buys” in NCD prevention
THANK YOU!

For more information:

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

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http://www.tobacconomics.org

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