The Economics of Alcohol and Cancer/Chronic Disease

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Overview

• Economic Costs of Excessive Drinking
• Alcohol Control Policies
• Impact of Alcohol Taxes and Prices
• Alcohol Taxation Globally
• Economic Myths & Facts
Economic Costs of Excessive Drinking
Categories of Costs

• Direct costs: reduction in existing resources
  – Direct health care costs
  – Direct non–health care costs
    • Include law enforcement costs, property damage and other costs

• Indirect or productivity costs: reduction in potential resources
  – Lost productivity due to morbidity and premature mortality

Source: Ross, 2007
Categories of Costs

- External costs
  - costs that drinkers impose on others (e.g., costs to non-drinking victims of traffic crashes, violence)

- Internal costs
  - costs paid for by drinkers incurred as a result of their excessive consumption (e.g., out of pocket costs for health care to treat diseases caused by drinking)

Source: Adapted from Ross, 2007
Estimates of Economic Costs

• Rehm and colleagues (2009) review:
  – Total Economic Costs:
    • Equivalent to 2.5% of GDP in High-Income Countries
    • Equivalent to 2.1% of GDP in Middle-Income Countries
      – Limited evidence for MICs (Thailand and South Korea)
    • Health care costs account for relatively small share (12.8% in HICs, 5.8% in MICs)
    • Other direct costs significant (28.3% in HICs, 15.6% in MICs)
    • Indirect costs account for largest share (49% in HICs, 79% in MICs)
    • Likely underestimate of total costs

Source: Rehm, et al., 2009
Alcohol Control Policies
Efficacy and the Strength of Evidence of U.S. Alcohol Control Policies

- Evaluated 47 different alcohol control policies across four domains:
  - Overall and youth binge drinking
  - Overall and youth drinking and driving
Table 2. Ratings of alcohol control policy efficacy within four policy domains, M (SD)

<table>
<thead>
<tr>
<th>Policy type</th>
<th>General population</th>
<th>Youth population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Binge drinking</td>
<td>Alcohol-impaired driving</td>
<td>Binge drinking</td>
</tr>
<tr>
<td>All</td>
<td>2.5 (0.9)</td>
<td>2.5 (0.9)</td>
<td>2.7 (0.7)</td>
</tr>
<tr>
<td>Pricing</td>
<td>4.0 (0.5)</td>
<td>3.8 (0.6)</td>
<td>3.8 (0.7)</td>
</tr>
<tr>
<td>Physical availability</td>
<td>2.6 (0.5)</td>
<td>2.5 (0.5)</td>
<td>2.9 (0.6)</td>
</tr>
<tr>
<td>Drinking and driving</td>
<td>2.1 (0.5)</td>
<td>2.8 (0.5)</td>
<td>2.4 (0.7)</td>
</tr>
<tr>
<td>Promotion</td>
<td>1.8 (0.3)</td>
<td>1.6 (0.3)</td>
<td>1.9 (0.5)</td>
</tr>
</tbody>
</table>

Note: Pricing policies include alcohol excise tax (state); wholesale price restrictions; and retail price restrictions. Physical availability policies include outlet density restrictions; minimum legal drinking age laws; keg registration laws; social host laws (civil liability); house party laws (social host, criminal liability); dram shop liability laws; minimum age of server/seller; state alcohol control systems (monopoly); false ID laws; hours of sale restrictions; days of sale restriction (Sunday sales); responsible beverage service training; restrictions on alcohol consumption in public places, events; bans on alcohol sales; sales or service to intoxicated patrons prohibited; public consumption laws; direct shipment of alcohol to consumers restricted; compliance checks (enforcement of MLDA laws); furnishing alcohol to minors prohibited; public intoxication prohibited; local authority to regulate retail alcohol availability (preemption/conditional-use permits); ABCs present, functional, and adequately staffed; local option permissible; credit card sales of alcohol prohibited; and retail alcohol license policy. Drinking and driving policies include zero-tolerance laws, graduated driver license laws; administrative license revocation; use alcohol—lose license (youth); ignition interlock laws for DUI offenders; BAC 0.08/per se laws; sobriety checkpoints; open container laws; automobiles; mandatory substance abuse assessment for DUI offenders; place of last drink information collection and reporting; and lowering BAC to 0.05/per se. Promotion policies include retail signage restrictions, warning labels on alcohol products, counter-marketing campaigns for alcohol, restrictions on mass media alcohol advertising exposure; nutrition Information labels; FAS warning signs; promotional material and giveaway restrictions; and outdoor advertising restrictions.
“Best Buys” (CEA ≤ $100 per DALY averted in LMICs)

– 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
Effective Interventions (CEA > I$100 per DALY averted in LMICs)

- Enact and enforce drink-driving laws and blood alcohol concentration limits via sobriety checkpoints
- Provide brief psychosocial interventions for persons with hazardous and harmful alcohol use

Source: WHO 2017
Other Interventions (No CEA information available)

- Carry out regular review of prices in relation to the level of inflation and income
- Establish minimum prices for alcohol where applicable
- Enact and enforce appropriate minimum age for purchase or consumption of alcoholic beverages and reduce density of retail outlets

Source: WHO 2017
Other Interventions (No CEA information available)

- Restrict or ban promotions of alcoholic beverages with sponsorships and activities targeting young people.
- Provide prevention and treatment, and care for alcohol use disorders and comorbid conditions in health and social services.
- Provide consumer information about, and label, alcoholic beverages to indicate, the harm related to alcohol.

Source: WHO 2017
Case Study: Russian Federation

- Implemented comprehensive set of alcohol control measures beginning in 2005 and strengthened over time, including:
  - Tax increases
  - Stronger controls on distribution
  - Minimum pricing policies
  - Zero-tolerance drink-driving laws
  - Limits on advertising and promotion
  - Improved treatment and prevention programs

Source: WHO 2017
Alcohol Taxation
Why Tax?

• Efficient Revenue Generation
  – Historically and still the most important rationale

• To Improve Public Health
  – Given evidence on effects of taxes on drinking and its consequences

• To Cover the Social Costs of Excessive Drinking
  – Given extensive economic costs from excessive drinking, particularly external costs

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U.S. Federal Beer Tax and Tax Revenues
1945-2013, Inflation Adjusted

Source: Brewers Almanac, 2013, ATTTB, 2014, and author’s calculations
Economic Costs of Excessive Alcohol Consumption & Alcohol Tax Revenues
United States, 2010

Total Costs: $249.0 Billion Dollars
Government Costs: $100.7 Billion Dollars
Tax Revenues: $15.7 Billion Dollars

Sources: Tax Policy Center, 2018; Sacks et al., 2015
Alcohol Prices & Drinking

• 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
Distilled Spirits Sales and Prices
Ukraine, 2002-2016, Inflation Adjusted

Sales Volume, Million Litres
Real Price

Sources: Chaloupka, et al., forthcoming
Beer Tax and Binge Drinking Prevalence  US States, 2010

Source: Xuan et al., 2013
Alcohol Prices & Consequences

• Extensive econometric and other research shows that higher prices for alcoholic beverages significantly reduce:
  • Drinking and driving, traffic crashes, and motor-vehicle accident fatalities

Source: Xu & Chaloupka, 2011; Wagenaar et al., 2010
Alcohol Prices and Alcohol-Related Traffic Fatalities, US, All Ages, 1987-1993

Alcohol Prices and Alcohol-Related Traffic Fatalities, US, Ages 16-20, 1987-1993

Source: NHTSA, BLS, and author’s calculations
Alcohol Prices & Consequences

• Econometric and other research shows that higher prices for alcoholic beverages significantly reduce:
  
  • 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: Xu & Chaloupka, 2011; Wagenaar et al., 2010
Alcohol Taxation Globally
Alcohol Taxation Globally

- Taxes on alcoholic beverages are low and rarely increased
  - Excise taxes account for relatively modest share (17.3%) of prices
    - 74 reporting countries, 2012
    - Less than half of cigarette excise tax share
  - Taxes generally lowest on beer, highest on distilled spirits
    - Some countries tax some beverages but not others
  - Mix of different tax structures (specific, *ad valorem*, and mixed)
  - Specific tax base varies (volume, ethanol)
  - Tax increases are infrequent and generally small
Alcoholic Beverage Excise Taxes by Beverage Type

Source: WHO 2017
U.S. State Cigarette & Beer Tax Increases, 2000-2015

Sources: Campaign for Tobacco Free Kids; NIAAA Alcohol Policy Information System; Brewers Almanac
Note: Does not show the multiple reductions in beer taxes and the few reductions in cigarette taxes
Decade of Last Permanent Beer Tax Increase
Economic Impact - Myths & Facts
Alcohol industry uses several common arguments in opposition to tax increases:

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

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ABSTRACT

There is strong scientific evidence supporting the effectiveness of increasing alcohol taxes for reducing excessive alcohol consumption and related problems. Opponents have argued that alcohol tax increases lead to job losses. However, there has been no comprehensive economic analysis of the impact of alcohol taxes on employment. To fill this gap, a regional macroeconomic simulation model was used to assess the net impact of two hypothetical alcohol tax increases (a 5-cent per drink excise tax increase and a 5% sales tax increase on beer, wine, and distilled spirits, respectively) on employment in Arkansas, Florida, Massachusetts, New Mexico, and Wisconsin. The model accounted for changes in alcohol demand, average state income, and substitution effects. The employment impact of spending the new tax revenue on general expenditures versus health care was also assessed. Simulation results showed that a 5-cent per drink additional excise tax on alcoholic beverages with new tax revenues allocated to general expenditures increased net employment in Arkansas (802 jobs); Florida (4583 jobs); Massachusetts (978 jobs); New Mexico (653 jobs); and Wisconsin (1167 jobs). A 5% additional sales tax also increased employment in Arkansas (789 jobs); Florida (4493 jobs); Massachusetts (898 jobs); New Mexico (621 jobs); and Wisconsin (991 jobs). Using new alcohol tax revenues to fund health care services resulted in slightly lower net increases in state employment. The overall economic impact of alcohol tax increases cannot be fully assessed without accounting for the job gains resulting from additional tax revenues.
Consumer Costs and Job Impacts from State Alcohol Tax Increases

See how a tax increase could affect your state...

**Step 1: Choose state:**
- Alabama

**Step 2: Choose a tax increase:**
- $0.05
- $0.10
- $0.25
- 5%

Social and Health Effects of Changes In Alcohol Prices - A research collaboration between:

University of Florida
University of Illinois at Chicago
Boston Medical Center
Johns Hopkins Bloomberg School of Public Health

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Methodology (PDF)
Summary
Summary

• Economic costs of excessive drinking are considerable
• Alcohol tax increases reduce drinking and its consequences
• Alcohol taxes are generally low and increased infrequently
• Counterarguments about negative economic impact of tax increases are false or greatly overstated
Thank You!

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