The Human and Economic Cost of Alcohol Use in Minnesota

Highlights

- For the most recent year available, the economic costs associated with alcohol use in Minnesota are an estimated $5.06 billion.
- This amounts to over $975 for every person in the state.
- These costs are 17 times greater than the $296 million in tax revenues collected from alcohol sales.

Consequences of alcohol use

- Excessive alcohol consumption is the third leading preventable cause of death in the United States according to a 2004 national study.¹
- There were 1,150 alcohol-attributable deaths in Minnesota in 2007 (see Figure 1) and 28,979 years of potential life lost (see Figure 2).
- Alcohol use contributes to a number of negative consequences, including: unintentional injuries including falls, burns, drowning, and motor vehicle crashes; violent acts including homicide, suicide, and assault; chronic diseases including cancer, digestive disease and cardiovascular disorders; unintended pregnancies, sexually transmitted diseases; and alcohol related birth defects.²-³
Drinking patterns in Minnesota

Adults
- In 2009, 20 percent of Minnesota adults reported binge drinking, consuming five or more drinks for men and four or more for women on an occasion in the last month. One quarter of males over 18 reported binge drinking, compared to 15 percent of women.4
- Binge drinking in Minnesota is higher than the national median of all states and territories, which is 15.5 percent.4
- Five percent of Minnesota adults report being heavy drinkers in 2009, consuming an average of more than 2 drinks a day for men and more than 1 drink per day for women in the past 30 days.4
- From 2004 to 2009, individuals between the ages of 18 and 24 were more likely to report higher rates of binge drinking than any other age group.4
- In 2007, Minnesota’s ethanol consumption among persons 14 and older was 1.16 gallons of beer per capita, 0.32 gallons of wine per capita, and 0.97 gallons of spirits per capita.5

Youth
- In 2010, 19 percent of 9th graders and 41 percent of 12th graders in Minnesota reported consuming alcoholic beverages on at least one occasion in the past 30 days.6
- Minnesota 12th graders are drinking at as high of a rate as 12th graders nationally. 6-7
- In 2010, 10 percent of 9th graders and 24 percent of the 12th graders in Minnesota reported binge drinking, consuming 5 or more drinks in a row, in the past 2 weeks.6
- In 2010, 19 percent of 12th graders in Minnesota reported driving a motor vehicle after using alcohol or drugs.6
- Among 9th graders in Minnesota, more American Indian and Hispanics report drinking in the past 30 days (31 percent and 29 percent respectively) than Asian, African American or White 9th graders (15 percent, 17 percent and 18 percent respectively).6

Cost of alcohol use in Minnesota
- The human and economic costs associated with alcohol use in 2007 (the most recent year data is available) amounted to an estimated $5.06 billion, or $975 per person in Minnesota. (See Table 1)8-9
  - The vast majority, 73 percent, of the costs associated with alcohol use was attributed to lost productivity ($3.7 billion). Most of these lost productivity costs were due to alcohol-related illnesses and premature death due to alcohol use.
  - Healthcare expenditures for medical consequences of alcohol use and the treatment, prevention, and support for alcohol use disorders amounted to $938 million.
  - Another eight percent of the costs of alcohol use were attributed to other impacts on society, such as property and administrative costs of alcohol-related motor vehicle crashes, social welfare administration, fire destruction, and various criminal justice system costs of alcohol-related crime.
- For fiscal year 2007, Minnesota collected $296,000,000 in excise and sales tax revenue from alcohol sales.10 This revenue is a fraction of the economic cost of alcohol use during that same year—$5.06 billion—which is 17 times greater than the tax revenue.
A national report from 2009 on the economic costs of substance abuse (including alcohol and other drugs) found that for every dollar spent by federal and state government on substance abuse and addiction, 95.6 cents paid for the burden on public programs. The report also found that in 2005, federal, state, and local government spent 11 percent of their allotted budgets on substance abuse and addictions.

### How to calculate the economic cost of alcohol in a community

To estimate the economic cost of alcohol in a community, multiply the cost of alcohol per person in Minnesota ($975) by population estimate for the community.

### Additional information

A full report, *The Human and Economic Cost of Alcohol Use in Minnesota*, is available. This comprehensive report describes the scope of the cost estimation project, a review of the literature, a description of and justification for the methodology used, the findings of the cost estimate study, and a discussion section including limitations and recommendations.

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**Table 1: Estimated economic costs of alcohol abuse in Minnesota**

<table>
<thead>
<tr>
<th>Economic Cost</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Care Expenditures</strong></td>
<td></td>
</tr>
<tr>
<td>Alcohol and drug abuse services</td>
<td>266,000,000</td>
</tr>
<tr>
<td>Medical consequences of alcohol consumption</td>
<td>672,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$938,000,000</td>
</tr>
<tr>
<td><strong>Productivity Effects (Lost Earnings)</strong></td>
<td></td>
</tr>
<tr>
<td>Impaired productivity</td>
<td>2,783,000,000</td>
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<tr>
<td>Lost future earnings due to premature deaths**</td>
<td>729,000,000</td>
</tr>
<tr>
<td>Lost productivity due to alcohol-related crime</td>
<td>196,000,000</td>
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<tr>
<td><strong>Total</strong></td>
<td>$3,707,000,000</td>
</tr>
<tr>
<td><strong>Other impacts on society</strong></td>
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<tr>
<td>Motor vehicle crashes</td>
<td>278,000,000</td>
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<tr>
<td>Criminal justice</td>
<td>117,000,000</td>
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<tr>
<td>Fire destruction</td>
<td>8,000,000</td>
</tr>
<tr>
<td>Social welfare program administration</td>
<td>15,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$417,000,000</td>
</tr>
<tr>
<td><strong>Total Costs</strong>*</td>
<td>$5,062,000,000</td>
</tr>
</tbody>
</table>

* MDH estimated the economic costs of alcohol abuse for 2007 based upon national estimates for other years, adjusting for inflation, population change, and incidence adjustment factors. Incidence adjustment factors are rate ratios comparing incidence of a given variable (such as deaths or traffic crashes) in Minnesota to that of the nation. ** Present discounted value of future earnings calculated using a 4.75-percent discount rate. ***The cost per person in Minnesota is $975.
Endnotes

9. National estimates of alcohol-related economic costs were adjusted by Minnesota to U.S. incidence rate ratios as follows. Healthcare services, impaired productivity due to illness or injury, and social welfare administration costs were adjusted by alcohol abuse or dependence rate ratio from the Substance Abuse and Mental Health Services Administration, Office of Applied Studies, National Survey on Drug Use and Health, 2006 and 2007. http://www.oas.samhsa.gov/2k7State/AppB.htm Last productivity due to alcohol-related premature death, and estimates of the cost of alcohol-related fires, were adjusted by the alcohol-related death rate ratio utilizing data obtained upon request from the Minnesota Department of Health, Minnesota Center for Health Statistics, and utilizing the Centers for Disease Control and Prevention, Division of Adult and Community Health, Alcohol and Public Health, Alcohol-Related Disease Impact (ARDI) Software. https://apps.nccd.cdc.gov/ardi/Homepage.aspx Alcohol related criminal justice, and lost productivity due to alcohol related crime and crime victims, were adjusted using the crime rate ratio from the Federal Bureau of Investigation, Uniform Crime Reporting Statistics.