

***The High Cost of Excessive Alcohol
Consumption in New Hampshire***

Executive Summary

**PolEcon Research
December 2012**



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New Futures Introduction

Excessive alcohol consumption is the third-leading preventable cause of death in the United States: on average 79,000 people die and 2.3 million years of potential years of life are lost each year. Excessive alcohol consumption is also associated with multiple adverse health and social consequences, increased healthcare and criminal justice costs and lost worker productivity in the form of missed work, diminished output, and reduced earning potential.

In January 2012 a seminal study released by the United States Centers for Disease Control and Prevention and the Lewin Group (Ellen E. Bouchery, et al, *Economic Costs of Excessive Alcohol Consumption in the U.S.*, <http://www.ajpmonline.org/>) found that the cost of excessive alcohol consumption in the United States reached \$223.5 billion in 2006. The CDC/Lewin Study graphically illustrates the staggering economic impact of excessive alcohol consumption on individuals, families, government and the economy. The costs resulted in losses in workplace productivity (72% of the total cost); healthcare expenses for problems caused by excessive drinking (11%); law enforcement and other criminal justice costs (9%); and motor vehicle crash costs from impaired driving (6%). The study analyzed national data from multiple sources to estimate the cost due to excessive drinking in 2006, the most recent year for which data were available.

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The release of the CDC/Lewin Study prompted New Futures to ask whether it was possible to determine the cost of excessive alcohol consumption in New Hampshire, a state in which the proceeds from the direct state sale of alcohol is the largest non-tax source of revenue in the state, approximately \$140 million per year.

New Futures believes that the analysis of the economic and societal cost of excess alcohol consumption in New Hampshire will be of critical importance to policy makers and advocates in 2013 as the state seeks, as part of the State Fiscal Year 2014/2015 budget process, to wisely invest its limited resources to promote economic growth and the public health and well-being of its citizens. To this end, New Futures contracted with PolEcon Research to undertake an independent, comprehensive analysis of the costs of excessive alcohol consumption in New Hampshire. New Futures is pleased to provide the attached Executive Summary of the PolEcon Report for the consideration of policy makers and other interested parties. A copy of the complete report, entitled *The High Cost of Excessive Alcohol Consumption in New Hampshire* (December 2012) is available at <http://new-futures.org/resources/high-cost-excessive-alcohol-consumption-new-hampshire-december-2012>

EXECUTIVE SUMMARY

The High Cost of Excessive Alcohol Consumption in New Hampshire

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Purpose

The PolEcon Report (“Report”) uses valid and reliable sources of New Hampshire data and appropriate analytical methods and tools to estimate the economic costs of excessive alcohol consumption in New Hampshire. As used in the Report “excessive alcohol consumption” commonly refers to binge drinking, heavy drinking, underage drinking, and drinking by pregnant women. In addition, a history of alcohol dependence or abuse may also be considered as a specific indicator of excessive alcohol consumption.

The Report estimates the costs of excessive alcohol consumption in four broad areas:

- Productivity;
- Healthcare;
- Public Safety and Criminal Justice; and
- Other

The Report also seeks to determine the extent to which the costs of excess alcohol consumption are borne by private individuals/businesses or state/local government. Finally, the Report discusses the policy implications of its findings.

The Report concludes that excessive alcohol consumption costs New Hampshire more than \$1.15 billion annually in lost productivity and earnings, increased expenditures for healthcare, and public safety costs. This \$1.15 billion represents 2% of the total personal income of the state. Not included in this total is an additional \$218.6 million in discounted lifetime earnings lost each year by the almost 300 individuals who die prematurely each year in New Hampshire as the result of excess alcohol consumption. The state and local governments’ share of the \$1.15 billion in costs of excessive alcohol consumption is estimated to be \$251 million annually.

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The Report uses the terms “costs” and “losses” interchangeably to represent the monetized impacts of excessive alcohol consumption. Costs occur in the form of direct expenditures, as in the case when excess alcohol consumption adversely affects health, resulting in increased healthcare and human services expenditures. Economic impact also occurs in the form of reductions (losses) in economic productivity and wage and salary earnings when labor force participation and earnings are reduced as the result of excessive consumption of alcohol.

Economic Costs of Excessive Alcohol Consumption

- Productivity. Excessive alcohol consumption affects both the number of individuals participating in the workforce and the earnings of those individuals who do participate in the workforce. The impact of excessive alcohol consumption on the size and productivity of the New Hampshire workforce reduces the output of New Hampshire business, lowers the overall performance of

the New Hampshire economy and accounts for two thirds (66%) of the annual cost of excessive alcohol consumption, an estimated \$756.5 million in 2011.

Individuals who work less, produce less, and earn less because of excess alcohol consumption represent a waste of human resources. Human resources, especially individuals with education, training, and initiative, are the most valuable resource in the 21st Century economy. Because both population growth and in migration in New Hampshire have slowed (See New Hampshire Center for Public Policy Studies, *From Tailwind to Headwind: New Hampshire's Shifting Economic Trends*, September 2012; <http://www.nhpolicy.org>), human resources are becoming scarcer in New Hampshire. New Hampshire cannot afford to waste human resources if it wants to maximize the performance of its economy.

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The Report notes that because several studies have failed to find statistical impacts on labor force participation and earnings for women who consume alcohol excessively, the Report includes the impact of excessive alcohol consumption on the labor force participation and earnings only on males age 18 – 64 and states that as a result, its productivity numbers likely underestimate the impact of excess alcohol consumption.

The key findings of the Report with regard to workforce productivity are:

- *Reduced Labor Force Participation:*
 - Alcohol dependency resulted in an estimated 9,292 fewer male workers in the state's labor force in 2011, which represents an overall reduction in the state's labor force of 1.2% with an associated loss of earnings of \$403.9 million.
 - Labor force participation rate losses are especially high as a percentage of the population among young males under the age of 25.
- *Lower Earnings of Workers in the Labor Force:* Impaired productivity of alcohol dependent workers in the New Hampshire labor force costs an estimated \$325.6 million in reduced earnings, with a median earning reduction of \$4,878 per alcohol dependent worker.
- *Worker Absenteeism:*
 - More than 54,000 workers with an alcohol dependency or abuse problems are employed by New Hampshire businesses.
 - Over \$27 million in alcohol attributed absenteeism costs are incurred by New Hampshire businesses because of excessive alcohol consumption. The implied loss of output by businesses resulting from this absenteeism is over \$71 million.
 - Businesses that employ a high percentage of younger and/or male workers, such as retail and construction, have the highest rates of excessive alcohol use in their workforces.
- Healthcare. Healthcare costs associated with excessive alcohol consumption include the costs of providing alcohol treatment services (inpatient residential services, outpatient programs, and detoxification services) to persons who abuse alcohol. In addition, alcohol abuse can increase

the risk of illness or injury and thereby increase the use and cost of medical services for alcohol attributable medical services including hospital costs (inpatient, outpatient, and emergency room services), physician charges, prescription drugs, and the cost of nursing home care.

- *Alcohol Treatment Services:*

- Of the 96,000 New Hampshire residents estimated to need treatment for excess alcohol consumption only 4% or 4000 individuals received services for alcohol abuse at substance treatment facilities in New Hampshire in 2010, at an estimated cost of \$9.7 million, with \$2.7 million of that care provided free of charge.
- In only one state (Texas) is an individual in need of treatment for substance abuse (primarily alcohol) less likely to receive treatment than in New Hampshire.

- *Medical Services:*

- Healthcare charges attributable to excessive alcohol consumption are estimated at \$206.7 million in 2011 and payments for the services are estimated at \$154 million in New Hampshire, an amount equal to about 1.5% of total medical expenditures in the state.
- Hospital charges accounted for the largest share of alcohol-attributable medical costs. Hospital charges for alcohol-attributable first diagnoses were an estimated \$123 million, and payments to hospitals were \$77.5 million.
- Insurance administration costs associated with alcohol-attributable medical services are estimated to add an additional \$17.6 million in alcohol-related costs.

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- Public Safety and Criminal Justice. Research has shown a strong link between alcohol and drug use and abuse and crime. The Report estimated the costs for police protection, the judicial system, and state and county correctional systems resulting from excessive alcohol consumption. The costs total \$88.2 million in 2011. The Report does not include an estimate of the cost to crime victims of alcohol-attributable crime.
 - Alcohol-attributable offenses account for about 30% of all arrests and about 12.8% of all crimes committed in New Hampshire.
 - Policing and public safety costs related to alcohol total \$41.1 million in New Hampshire, of which \$34.4 million are borne by local government.
 - Judicial costs attributable to alcohol cost \$12 million annually.
 - Alcohol-attributable incarcerations increase corrections costs by \$35.1 million annually.
- Other Costs. Other costs included in the Report are those related to motor vehicle accidents and to reductions in state and local government tax revenue.
 - *Motor Vehicle Accidents:*
 - Alcohol consumption is a major cause of motor vehicle crashes and injury. According to the National Highway Traffic Safety Administration (2002), alcohol

is involved in crashes that account for 21% of the costs that result from nonfatal traffic crashes and 46% of the costs that result from fatalities. Overall, alcohol involved crashes are responsible for 22% of the economic costs associated with motor vehicle crashes.

- The estimated cost of alcohol-attributable motor vehicle crashes (after subtracting crash-related medical and productivity costs, which are calculated and included in the productivity and healthcare sections of the Executive Summary) was \$78.5 million in 2011.
 - *State and Local Government Revenue Loss:* Reduced labor force participation, lower average earnings, and greater worker absenteeism due to excess alcohol consumption and the income losses from alcohol-related premature deaths combine to reduce state and local revenues in New Hampshire by an estimated \$46 million annually.

Summary of NH Costs of Excessive Alcohol Consumption (\$ Millions)	
Productivity	Annual Costs
Lower Labor Force Participation	\$403.90
Impaired Productivity	\$325.60
Absenteeism	\$27.10
Subtotal	\$756.60
Health Care	
Alcohol Abuse Treatment	\$9.70
Medical Expenditures	\$154.40
Insurance Administration	\$17.60
Subtotal	\$181.70
Criminal Justice	
Police Protection and Crime	\$41.10
Judicial System	\$12.00
Corrections	\$35.10
Subtotal	\$88.20
Other Costs	
Motor Vehicle Crashes	\$78.50
State and Local Tax Revenue	\$45.99
Subtotal	\$124.50
Grand Total	\$1,151.00

Who Bears the Cost of Excessive Alcohol Consumption?

Costs related to excessive alcohol consumption may be borne by many others than those who excessively drink and their families, including business, government, and the broader economy. The lower productivity and reduced earnings of an employee who excessively consumes alcohol also implies a reduction in the business in which he is employed. An individual who needs medical services as the result of excessive drinking may bear some the costs in terms of lost earnings and medical expenses, but businesses or governments will also bear a cost if they are the primary payers (by providing medical insurance) for a worker's medical treatment. The Report grouped those directly bearing costs into two categories: Private (individuals; families; and others including business/employers, health care providers, and insurers) and Government (State and Local). The costs to the federal government of excess alcohol consumption are not included. The summary findings of the Report are presented in the following table.

The Cost of Excessive Alcohol Consumption to the Private and Public Sectors of New Hampshire					
	Annual Costs	Private (Individuals & Businesses)	%	Government (State & Local)	%
Productivity					
Lower Labor Force Participation	\$403.90	\$344.19	85.20%	\$42.65	10.60%
Impaired Productivity	\$325.60	\$277.47	85.20%	\$34.38	10.60%
Absenteeism	\$27.10	\$23.09	85.20%	\$2.86	10.60%
Subtotal	\$756.60	\$644.75	85.20%	\$79.90	10.60%
Health Care					
Alcohol Abuse Treatment	\$9.70	\$4.85	50.00%	\$2.91	30.00%
Medical Expenditures	\$154.40	\$92.64	60.00%	\$23.16	15.00%
Insurance Administration	\$17.60	\$11.44	65.00%	\$2.64	15.00%
Subtotal	\$181.70	\$108.93	60.00%	\$28.71	15.80%
Criminal Justice					
Police Protection and Crime	\$41.10	\$0.00	0.00%	\$41.10	100.00%
Judicial System	\$12.00	\$0.00	0.00%	\$12.00	100.00%
Corrections	\$35.10	\$0.00	0.00%	\$35.10	100.00%
Subtotal	\$88.20	\$0.00	0.00%	\$88.20	100.00%
Other Costs					
Motor Vehicle Crashes	\$78.50	\$70.21	89.40%	\$8.29	10.60%
State and Local Tax Revenue	\$45.99	\$0.00	0.00%	\$45.99	100.00%
Subtotal	\$124.50	\$70.21	56.40%	\$54.28	43.60%
Grand Total	\$1,151.00	\$823.89	71.60%	\$251.09	21.80%

Policy Implications

- Summary of Critical Report Estimates:

- 96,000 New Hampshire residents are estimated to need treatment for excessive alcohol consumption, but only 4,000 (4% of the total) receive treatment for excess alcohol consumption. The estimated annual per person cost for treatment is \$2,452.
- The total public and private economic cost of excessive alcohol consumption in New Hampshire is \$1.15 billion. For each of 96,000 residents in need of treatment for excessive alcohol consumption the annual public and private economic costs are \$11,989 (\$1.15 billion divided by 96,000).
- Of the total economic costs of \$1.15 billion, state and local government bear at least \$251.09 million, which amounts to \$2,615 for each person in need of treatment.

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- Policy Implications

- *Benefit of Increased Treatment Rates to State and Local Government:* Because the number of New Hampshire residents receiving treatment for excessive alcohol consumption is small and the annual per person cost of treatment (\$2,542) is less than the per person public share of the cost of excessive alcohol consumption (\$2,615), the net benefit to state and local government from increasing alcohol treatment rates in New Hampshire is large enough that if less than half of treatments are successful, the net benefits of treatment still exceed the public costs of increasing treatment rates.
- *Benefits of Increased Treatment Rates to New Hampshire’s Productivity and Economy:* The net benefits to New Hampshire’s productivity and the New Hampshire economy that accrue from increased treatments make a strong benefit to cost rationale for expanding alcohol treatment programs and increasing New Hampshire’s very low treatment rates. When the increases in earnings and productivity and the reductions in private and public sector costs are included in the net benefits of increasing alcohol treatment, the economic and fiscal benefits of increasing alcohol treatment rates are compelling. **The Report concludes that “alcohol treatment and prevention is likely to have a greater long-term economic impact than nearly all other strategies to improve the performance of the New Hampshire economy.”**
- *Medicaid Expansion:*
 - An estimated 58,247 non-disabled individuals, aged 18 – 64, without children, who have earnings of less than 133% of federal poverty guidelines will be eligible for Medicaid in New Hampshire if New Hampshire adopts the Medicaid expansion provisions of the federal Affordable Care Act.
 - The newly eligible Medicaid population is expected to have higher rates of alcohol and higher levels of health care costs than the existing Medicaid population in New Hampshire.
 - New Hampshire and its economy will incur direct and indirect public and private costs of the new eligible individuals in need of treatment for excessive alcohol

consumption regardless of whether or not they receive Medicaid. However, under Medicaid expansion, treatment costs for these individuals can be borne primarily by the federal government.

- *Revenue and Cost Mitigation:* New Hampshire could recoup the unrecovered cost to government of excess alcohol consumption by adopting an alcohol cost mitigation fee of \$.03 per drink, which translates into an effective tax rate on alcoholic beverages that ranges from 1.3 % to 3.5%.