

The Human and Economic Cost of Alcohol Abuse in New Mexico, 2006

Highlights

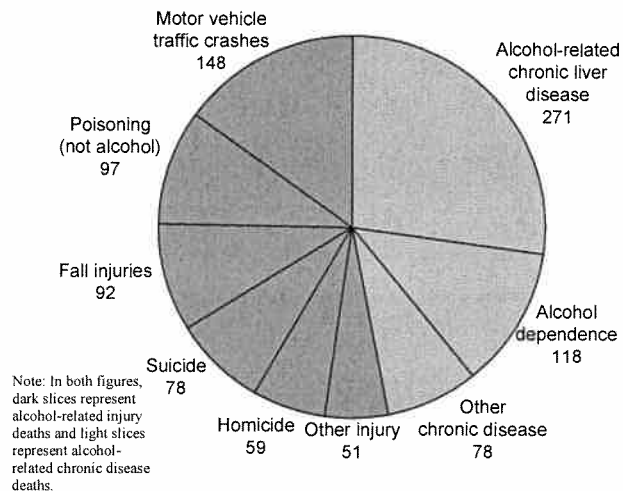
- Almost 1,000 deaths in New Mexico were related to alcohol in 2006, representing more than 27,000 years of potential life lost.
- The economic costs associated with alcohol abuse¹ in New Mexico in 2006 amounted to an estimated \$2.5 billion.
- These costs were 26 times greater than the \$97 million in tax revenues collected from alcohol sales. Alcohol-related tax revenue covered less than 4% of the economic cost of alcohol abuse.
- The economic burden of alcohol abuse amounted to over \$1,250 for every person in the state.

Consequences of Alcohol Use

- Alcohol use and misuse is the third leading cause of preventable death in the U.S.²
- Alcohol contributes to injuries resulting from motor vehicle crashes, fires, falls, and drowning. Alcohol also contributes to violence such as child abuse, homicide, suicide and personal assault.³
- Many chronic conditions are also attributable to alcohol use, including gastrointestinal diseases, certain cancers, mental disorders, and certain cardiovascular diseases.³
- In 2006, 993 deaths could be attributed to alcohol in New Mexico (see Figure 1) representing about 27,000 years of potential life lost (see Figure 2).⁴
- About 90% of the burden of alcohol-related premature mortality falls on adults aged 21 and over. About 75% of the burden falls to males.⁴
- New Mexico has one of the highest alcohol-related death rates in the U.S. In 2006, New Mexico's alcohol-related (A-R) death rate was 1.7 times the U.S. rate (1.6 times the U.S. rate for A-R injury, 1.9 times the U.S. rate for A-R chronic disease).⁵

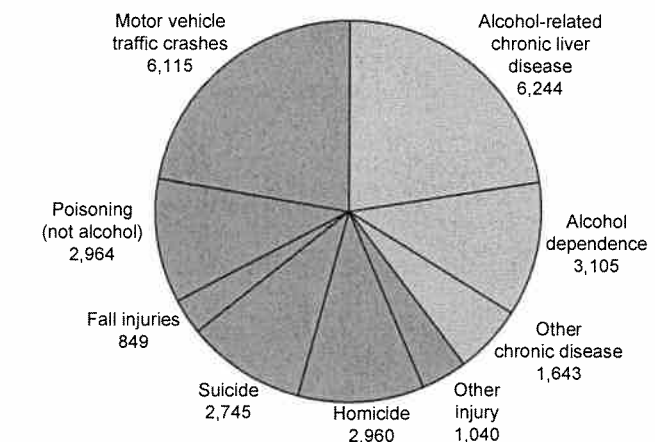
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Figure 1. Alcohol-attributable deaths by cause, New Mexico, 2006



Source: NMDOH BVRHS death file; CDC ARDI alcohol attributable fractions

Figure 2. Average annual alcohol-attributable years of potential life lost*, by cause, New Mexico, 2001-05



* Years of potential life lost (YPLLs) estimate the average years a person would have lived if he or she had not died prematurely. When summed across all decedents, as reported here, YPLLs are an indicator of the burden of premature mortality in the population.

Source: CDC

Drinking patterns in New Mexico

Adults

- Binge drinking (consuming five or more drinks on an occasion for men; four or more drinks on an occasion for women) is a risk factor for alcohol-related injury. In 2006, 13.0 percent of New Mexico adults reported binge drinking in the past 30 days.⁶
- Heavy drinking (consuming an average of more than 2 drinks a day for men; more than 1 drink per day for women) is a risk factor for alcohol-related chronic disease. In 2006, 4.4 percent of New Mexico adults reported being heavy drinkers in the past 30 days.⁶
- In 2006, 2.2 percent of New Mexico adults reported having driven after having “perhaps too much to drink” at least once in the past 30 days.⁷
- Men were significantly more likely than women to report binge drinking, heavy drinking, and driving after drinking.^{6,7}
- Only a minority of adults who report binge drinking, heavy drinking, or alcohol-impaired driving meet the criteria for alcohol dependence. This suggests that most alcohol problems in New Mexico are likely due to excessive drinking among persons who are not alcohol dependent.⁸

Youth

In 2007, among New Mexico high school students:⁹

- 38.4 percent of 9th graders and 49.0 percent of 12th graders reported consuming alcoholic beverages on at least one occasion in the past 30 days.
- 21.3 percent of 9th graders and 31.4 percent of 12th graders reported binge drinking (consuming five or more drinks within a couple hours) in the past 30 days.
- Binge drinking was the norm among current drinkers, reported by almost two-thirds (65.7%) of current drinkers.
- There was no significant difference in prevalence of current or binge drinking between boys and girls.
- Almost one-third (30.7%) of students reported having had a drink of alcohol before age 13, the highest prevalence of early initiation of alcohol use in the United States.
- Binge drinking was strongly associated with a wide range of risk behaviors. Binge drinkers were significantly more likely than non-binge drinkers and non-drinkers to report other substance use, being in

a physical fight, being hit by a boyfriend or girlfriend, being sexually active, and riding with a drinking driver. Binge drinkers were more than three times as likely to report driving after drinking as non-binge drinkers.

Cost of alcohol abuse in New Mexico

- The economic costs associated with alcohol abuse in 2006 amounted to an estimated \$2.5 billion. This amounts to over \$1,250 per person in New Mexico. (See Table 1)¹⁰
- A breakdown of the economic costs of alcohol abuse from Table 1 shows:¹⁰
 - The vast majority, 71 percent, of the costs associated with alcohol abuse were the result of lost productivity (\$1.8 billion). Most of these lost productivity costs were due to alcohol-related illnesses and premature deaths.
 - Healthcare expenditures for the medical consequences of alcohol use and for the prevention and treatment of alcohol use disorders amounted to nearly \$415 million.
 - More than \$300 million of the costs of alcohol abuse resulted from other impacts on society, including property and administrative costs associated with alcohol-related fires and motor vehicle crashes; social welfare administration costs; and various criminal justice system costs associated with alcohol-related crime.
- In 2006, New Mexico collected \$97 million in alcohol excise and gross receipts tax revenue from alcohol sales.¹¹ This revenue is substantially less than the economic cost of alcohol abuse in 2006 (\$2.5 billion), which was 26 times greater than the alcohol-related tax revenue.
- A national study, based on 1992 data, found that much of the economic burden of alcohol abuse is borne by segments of the population other than the alcohol abusers themselves. About 45 percent of the estimated total costs were borne by alcohol abusers and their families, almost all of which was due to lost or reduced earnings. About 20 percent was absorbed by the Federal government and 18 percent by State and local government. About 10 percent was absorbed by private insurance and 6 percent by victims of alcohol-related crimes and by non-drinking victims of alcohol-related motor vehicle crashes.¹²

How to calculate the economic cost of alcohol abuse for New Mexico communities

To estimate the economic cost of alcohol abuse for a specific New Mexico community, multiply the cost of alcohol per person in New Mexico (\$1,250) by the 2006 population estimate for that community.

Acknowledgements

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Endnotes

1. Per Lewin et al, 2000 (see reference 10 below) "As used in this report and throughout most of the literature on economic costs, the term 'alcohol abuse' refers to any cost-generating aspect of alcohol consumption. This differs from the clinical definition of the term, which involves specific diagnostic criteria. Thus, the costs associated with a single occasion of drunk driving that leads to injury or property damage would be counted in this framework, even though this behavior would not, by itself, meet the clinical criteria for a diagnosis of alcohol abuse."
2. Mokdad AH, Marks JS, Stroup DF, Gerberding JL (2004) Actual Causes of Death in the United States, 2000. *Journal of the American Medical Association*; 291(10):1238-1245.
3. Centers for Disease Control and Prevention (CDC) (2004) Alcohol-attributable deaths and years of potential life lost--United States, 2001. *Morbidity and Mortality Weekly Report*; 53 (37):866-70. Also see the Alcohol-Related Disease Impact Software (ARDI) at <https://apps.nccd.cdc.gov/ardi/Homepage.aspx>.
4. Alcohol-related deaths estimated by the Substance Abuse Epidemiology Section, New Mexico Department of Health (NMDOH), using NMDOH Bureau of Vital Records and Health Statistics (BVRHS) death files and CDC ARDI alcohol-attributable fractions. Alcohol-related death rates calculated by NMDOH based on alcohol-related deaths estimated using CDC ARDI alcohol attributable fractions; per 100,000 population age-adjusted to the 2000 U.S. standard population. New Mexico rates based on NMDOH BVRHS death files and population estimates from the University of New Mexico Bureau of Business and Economic Research; United States rates based on National Center for Health Statistics (NCHS) death files and vintage 2008 NCHS population estimates.
5. Honey, W. Health Behaviors and Conditions of Adult New Mexicans, 2006: Results from the Behavioral Risk Factor Surveillance System. Santa Fe, NM: New Mexico Department of Health, 2008.
6. Driving after drinking prevalence estimates calculated from

BRFSS data by the Substance Abuse Epidemiology Section, Injury and Behavioral Epidemiology Bureau, New Mexico Department of Health.

7. Woerle S, Roeber J, Landen MG (2007) Prevalence of Alcohol Dependence among Excessive Drinkers in New Mexico. *Alcoholism: Clinical and Experimental Research*; 31(2):293-98.
8. Green D, Peñaloza L, Ginossar T. 2007 New Mexico High School Results: Alcohol Use and Related Behaviors. Santa Fe, NM: New Mexico Department of Health, 2008.
9. The economic cost of alcohol abuse in New Mexico was estimated for the most recent year for which data was available (2006). This estimate was based on the most recent (1998) national estimates of the costs of alcohol abuse (Harwood, H. Updating Estimates of the Economic Costs of Alcohol Abuse in the United States: Estimates, Update Methods, and Data. Report prepared by The Lewin Group for the National Institute on Alcohol Abuse and Alcoholism, 2000. Based on estimates, analyses, and data reported in Harwood, H.; Fountain, D.; and Livermore, G. The Economic Costs of Alcohol and Drug Abuse in the United States 1992. Report prepared for the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Department of Health and Human Services. NIH Publication No. 98-4327. Rockville, MD: National Institutes of Health, 1998). These national estimates were adjusted for differences between the U.S. and New Mexico in productivity and in the incidence of alcohol-related problems (alcohol dependence or abuse, alcohol-related death, alcohol-related crime). Resulting estimates of New Mexico per capita costs by cost component for 1998 were then projected forward accounting for population change and inflation, using the best available adjustors. This approach was adapted from and is consistent with the approach used by other states that have published alcohol cost estimates (Whelan R, Josephson A, Holcombe J. The Economic Costs of Alcohol and Drug Abuse in Oregon in 2006. Portland, OR: ECONorthwest, 2008; Minnesota Department of Health. The Human and Economic Cost of Alcohol Use in Minnesota. St. Paul, MN: Minnesota Department of Health, 2006). Pain and suffering costs were not included in this estimate. A standard method for estimating pain and suffering costs has not yet been endorsed; and these costs were also excluded from the national and state estimates cited above. Moreover, the incident counts that supported such estimates in California's recent cost report (Rosen SM, Miller T, Simon M (2008) The Cost of Alcohol in California. *Alcoholism: Clinical and Experimental Research*; 32(11):1-12) were not readily available or of sufficient quality or completeness to support such estimates in New Mexico. Data availability, quality, and completeness issues also prevented the reporting of alcohol-related hospitalizations, crimes, and related rates in this report.
10. New Mexico Taxation and Revenue Department (NMTRD) provided alcohol excise tax revenue amount. NMTRD assisted with estimation of alcohol-related gross receipts tax revenue.
11. Harwood H, Fountain D, Livermore G. The Economic Costs of Alcohol and Drug Abuse in the United States, 1992. Report prepared for the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, U.S. Department of Health and Human Services. NIH Pub. No. 98-4327. Rockville, MD: National Institute on Drug Abuse, 1998.

The New Mexico Epidemiology Report

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Table 1. Economic Costs of Alcohol Abuse, New Mexico, 2006

Cost Component	Costs (\$ in Millions)*	Percent of Costs
Health Care Costs		
Alcohol-related prevention and treatment services	\$81	3%
Medical consequences of alcohol consumption	\$334	13%
	\$415	16%
Productivity Costs (Lost Earnings)		
Lost future earnings due to premature alcohol-related deaths	\$493	20%
Lost earnings due to alcohol-related illness	\$1,183	47%
Lost earnings due to alcohol-related crime (incarceration and victimization)	\$110	4%
	\$1,786	71%
Other Social Costs		
Crimes -- criminal justice and property damage	\$79	3%
Social welfare program administration	\$8	0%
Motor vehicle crashes -- property damage	\$215	9%
Fires -- property damage	\$15	1%
	\$318	13%
Total Costs	\$2,519	100%

* 2006 dollars

Source: New Mexico Department of Health, Epidemiology and Response Division