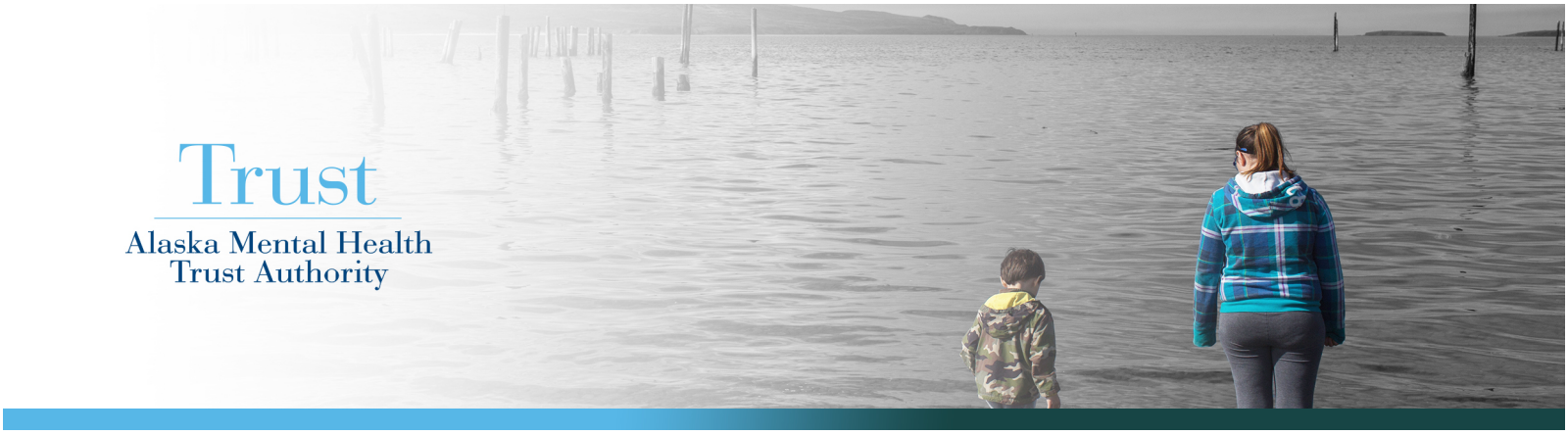


SUMMARY OF THE ECONOMIC COSTS OF SUBSTANCE USE DISORDERS IN ALASKA 2019 UPDATE

The Alaska Mental Health Trust Authority contracted with McDowell Group to prepare two studies, *The Economic Costs of Alcohol Misuse in Alaska* and *The Economic Costs of Drug Misuse in Alaska*. Each study examines costs associated with health care, the criminal justice system, lost or reduced workplace productivity, and public assistance and social services, as well as a range of other impacts related to substance misuse. Quality of life, pain and suffering of victims of crime, and others, and a spectrum of more qualitative effects related to substance misuse, while important, were not included in either analysis.

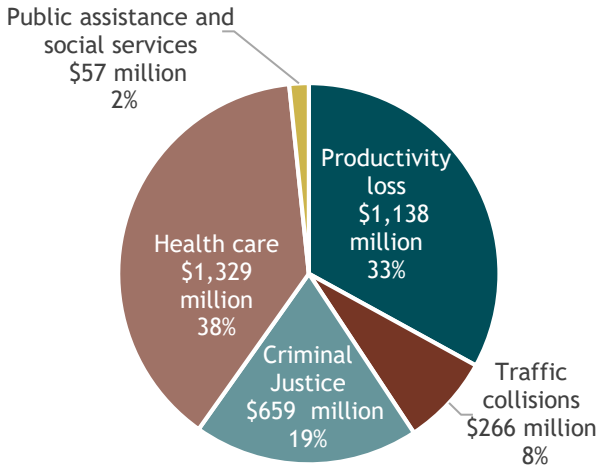
This summary provides an overview of the combined costs associated with both alcohol and drug misuse. Wherever possible, combined costs are unduplicated. However, some overlap is unavoidable due to the way in which data on alcohol and drug misuse is reported.

The Big Picture

In 2018, combined estimated direct costs of substance-use disorders—borne by state and local governments, employers, and residents of Alaska—totaled $3.45 billion. Approximately $2.39 billion (69% of total costs) were due to alcohol misuse; the remaining $1.06 billion (31%) were associated with drug misuse. The majority of these costs (a total of 71%) are linked to health care ($1.3 billion) and productivity losses ($1.1 billion).

Estimated Annual Substance Misuse-related Economic Costs to Alaska, 2018

Cost Category	Costs
Health care	$1,329 million
Productivity loss	$1,138 million
Criminal justice & protective services	$659 million
Traffic collisions	$266 million
Public assistance and social services	$57 million
Total	**$3,449 million**



Note: Does not include valuation of quality-adjusted life years due to alcohol-related and/or drug-related traffic collisions or indirect costs related to alcohol-related and/or drug-related victimization.
Source: McDowell Group calculations.

Compared to 2016 past results, total combined economic costs of substance misuse was $3.1 billion, including an estimated $1.84 billion for alcohol misuse and $1.22 billion for drug misuse. However, caution is advised when comparing these studies to previous efforts because economic modeling, data sources, data definitions, and analytical scope and specifications may have changed over time. Regardless, the economic impacts of substance misuse in Alaska are of great consequence.

Substance Consumption

Alcohol Misuse

In 2016-2017, approximately 302,000 Alaskans (ages 12+) reported "current use of alcohol" (any use of alcohol in the past 30 days). Among people reporting alcohol use, approximately 142,000 binge drank and 38,000 were either alcohol dependent or misused alcohol in the past year.

Alcohol consumed in Alaska (by both residents and visitors) annually totaled 14.0 million gallons of beer, 2.4 million gallons of wine, and 1.8 million gallons of spirits. In 2016-2017, Alaska ranked 27th in the U.S. for the proportion of people reporting current use of alcohol and 28th for binge drinking. In terms of alcohol dependence or misuse, Alaska's ranking was 10th highest in the nation.

Drug Misuse

During 2016-2017, approximately 21,000 Alaskans age 12 or older (3.5%) used illicit drugs (not including marijuana) in the previous month, and 3.7% (or 22,000 Alaskans) used illicit drugs sometime in the previous year. This includes 14,000 (2.3 percent) who used cocaine, 5,000 (0.8%) who used methamphetamine, and 3,000 (0.4%) who used heroin. About 28,000 Alaskans (4.8%) used pain relievers for non-medical reasons, including 4,000 (or 0.7%) who have a opioid use disorder.

All these prevalence patterns are similar to the nation as a whole with the one exception; drug misuse in the previous year was higher in Alaska (3.7% of those 12 or older) than in the U.S. (2.8%). The highest percentage of drug misuse (in the previous month) by age group occurred among young adults (7.2% of all Alaskans age 18-25). Approximately 2.4% of teenagers (age 12-17) in Alaska used illicit drugs in 2016-2017.

Contributing Cost Factors

Productivity Losses

Substance-use disorders result in lost productivity when they reduce people's employability or ability to perform household services such as caring for a child. Lost productivity can be the result of premature death, reduced efficiency through physical and/or mental impairment, employee absenteeism, incarceration for criminal offenses, and medical treatment or hospitalization.

Estimated Substance Use-related Productivity Losses, Alaska, 2018

Productivity Category	Costs	Percent of Total Costs
Premature deaths	$559 million	49
Incarceration	$103 million	9
Diminished productivity	$410 million	36
Time in addiction treatment programs	$26 million	2
Medical conditions (primary/secondary)	$40 million	4
Total	**$1,138 million**	**100%**

Source: McDowell Group calculations.

The largest component of productivity loss is premature death. Between 2014 and 2018, an annual average of 373 deaths in Alaska were linked to alcohol misuse and 137 to drug misuse. This resulted in an estimated 14,700 potential years of life lost (PYLL) each year. Productivity loss due to deaths where substance misuse was the primary cause totaled approximately $559 million in Alaska in 2018.

The second largest productivity loss caused by substance misuse in 2018 was reduction in labor force earnings due to failure to report to work and other impaired productivity ($410 million). Other productivity losses included:

- $103 million due to incarceration in Alaska
- $26 million in work missed while individuals were seeking substance use disorder treatment
- $40 million when individuals with a primary or secondary diagnosis related to substance-use disorders receive medical care in a hospital setting

Vehicle Traffic Collisions

Substance misuse plays a major role in vehicle traffic collisions in Alaska. It was a factor in an estimated 8% of all collisions in 2016 and included 726 Alaskans involved in alcohol-suspected collisions and 194 in drug-suspected collisions. These collisions resulted in $266 million in property damage, major and minor injuries, and fatalities.

Criminal Justice and Protective Services

A significant number of crimes are attributable to substance-use disorders, for example driving under the influence and many cases of assault, theft, and other violent and nonviolent crimes. These crimes result in criminal justice system costs (law enforcement, adjudication, and incarceration) and costs related to victims of crime (both direct (i.e., medical care costs, lost earnings, and property damage) and indirect (i.e., pain and sffering, decreased quality of life)).

In 2017, there were an estimated 41,550 known offenses or arrests in selected categories of common crimes in Alaska. Of these, 12,200 were attributable to alcohol misuse and 14,850 to drug misuse. Combined, these alcohol- and drug-misuse crimes represented 65% of all offenses in the catetories and approximately $229 million in criminal justice costs.

In total, the selected categories of crimes involved 46,100 victims in 2017. Of those, 25,450 victims were attributable to crimes associated with substance misuse, approximately 55% of victims. Direct costs to those victims were approximately $430 million.

Summary of Criminal Justice Costs Attributable to Substance Use Disorders in Alaska, 2017 (2018 dollars)

	Substance Use-Related
Number of offenses and arrests	27,067
Percentage of offenses-and arrests	65%
Number of victims of crime	25,458
Percentage of victims of crime	55%
Costs	
Criminal justice system	$229 million
Victim of crime – direct costs	$430 million
Victim of crime – indirect costs	$1,655 million
Criminal Justice Costs	**$2,314 million**

Source: McDowell Group calculations.

Substance-use disorders also impose costs on child protection services. In SFY2018, Office of Children Services (OCS) expenditures for child abuse and neglect attributable to substance-use disorders totaled an estimated $50 million (or 31% of total OCS spending).

Health Care

A wide variety of health care costs are associated with substance-use disorders, including hospitalization from injuries and illness, residential and outpatient treatment costs, pharmaceutical costs, and nursing home and long-term care facility costs.

In 2018, hospital-related medical costs to treat conditions and diseases where substance-use disorder was the primary diagnosis totaled $183 million, including $110 million in inpatient charges, $44 million in emergency department charges, and $30 million in charges for outpatient services delivered in a hospital setting.

Unduplicated Alaska Hospital-related Admissions/Visits, Length of Stay, and Total Charges Substance Use Disorder Attributable, Primary Diagnosis Only, 2018

Location of service	Admissions/Visits	Total Length of Stay (days)	Total Charges
Inpatient	**2,115**	**12,779**	**$110 million**
Emergency Department	**14,641**	**14,930**	**$44 million**
Outpatient	**18,741**	**55,314**	**$30 million**
TOTAL	**35,497**	**83,023**	**$183 million**

Source: Due to rounding, some columns may not sum to total. Alaska Hospital Facilities Data Reporting Program (HFDR). Substance use attributable rractions applied by McDowell Group.

Hospital-related medical costs to treat conditions and diseases with a primary and/or secondary diagnosis associated with alcohol misuse totaled $1.2 billion in 2018, including $941 million in inpatient charges, $126 million in emergency department charges, and $126 million in outpatient charges for services delivered in a hospital setting. Hospital-related medical costs to treat conditions and diseases with a primary and/or secondary diagnosis associated with drug-use disorders totaled $1.6 billion in 2018, including $1.1 billion in inpatient charges, $205 million in emergency department charges, and $259 million in outpatient charges for services delivered in a hospital setting. There is duplication between charges associated with alcohol misuse and drug misuse. These figures are presented only to demonstrate the impact on health care costs of including the large number of secondary diagnoses that identify alcohol or drug misuse as a factor.

In SFY2019, the Alaska Division of Behavioral Health dispersed general funds of $6.4 million for alcohol treatment and $5.8 million for drug treatment to various grantee service agencies in the state. Some of these costs are duplicated for individuals receiving treatment for both alcohol and drug misuse.

The cost of legal prescription drugs to treat alcohol misuse is estimated at 2.2% of Alaska's total prescription drug sales, or $16 million annually. Of Alaska's total estimated costs for skilled nursing facilities and long term care in SFY2019, alcohol misuse accounted for an estimated 1% or $14 million.

In 2018, an estimated $41 million in treatment costs were associated with 656 new cases of Hepatitis C attributed to injectable drug use in Alaska. Another $2.1 million in medical costs were associated with HIV/AIDS cases attributed to injectable drug use.

Public Assistance and Social Services

In FFY2019, the U.S. government spent an estimated $47 million in Alaska on social welfare supports attributable to substance-use disorders, including $32 million from alcohol misuse and $15 million from drug misuse. The largest expenditure was for Social Security disability benefits, followed by the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps.

In SFY2019, the State of Alaska spent an additional $10 million on social welfare supports attributable to substance use disorders, including $7 million to alcohol misuse and $3 million to drug misuse. The largest expenditures were for Adult Public Assistance, followed by Temporary Assistance for Needy Families (TANF).

In Conclusion

This research documents the profound economic impact alcohol and drug misuse have in Alaska, with measurable costs totaling over $3.4 billion annually. Costs are borne by individuals, families, businesses, and agencies throughout Alaska. From an economic perspective, prevention and treatment programs offer significant return-on-investment opportunities for Alaska.