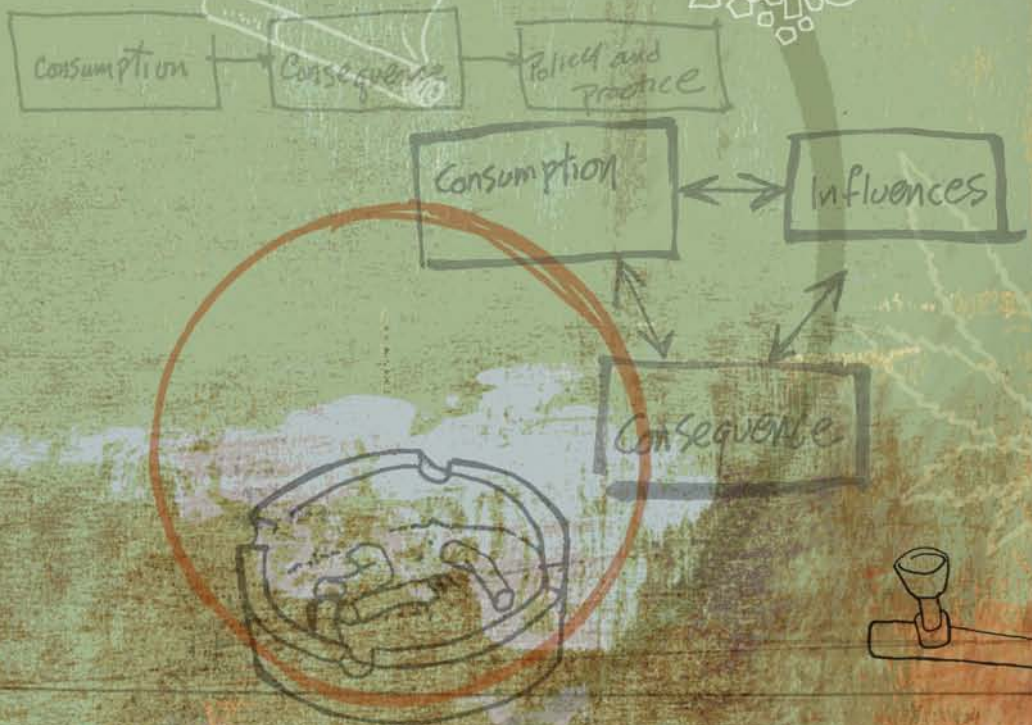
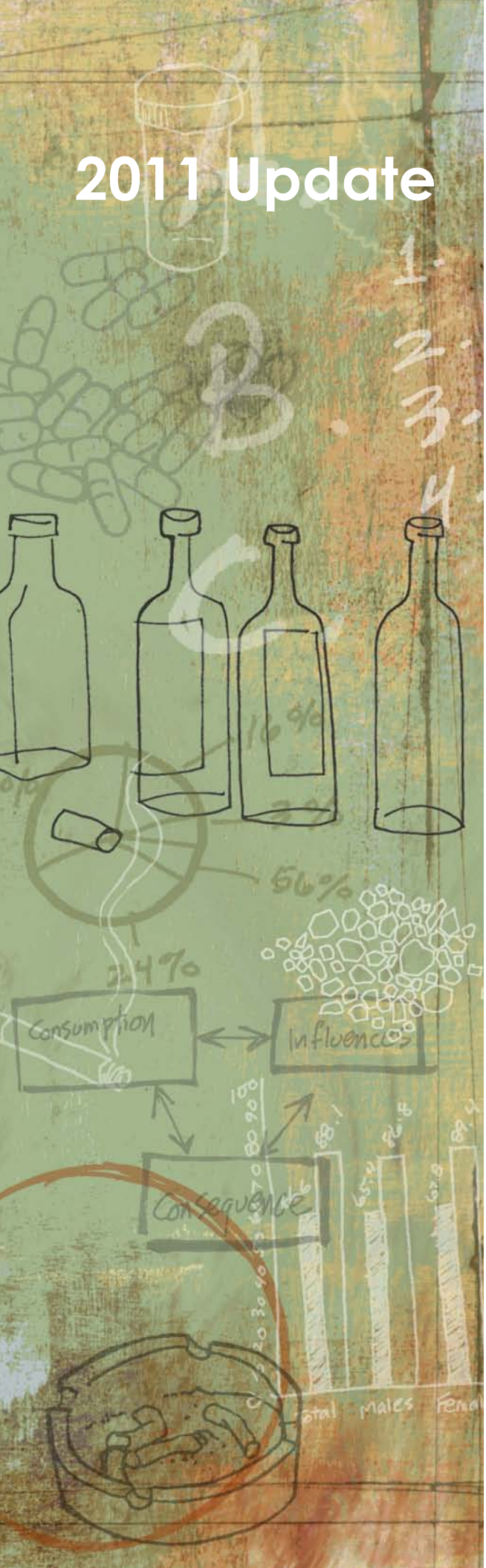
State of Alaska Epidemiologic Profile on
Substance Use, Abuse and Dependency

CONSUMPTION AND CONSEQUENCE





State Epidemiologic Profile on Substance Use, Abuse and Dependency

This draft of the State Epidemiologic Profile on Substance use, Abuse and Dependency is under technical review. Section Three – Influences is under development and will be included in the final revision, scheduled for release in October 2011

In Support of the State Epidemiological Workgroup of the Strategic Prevention Framework and the Alaska Department of Health and Social Services

August 2011
Section of Prevention and Early Intervention Services
Division of Behavioral Health
Department of Health and Social Services
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Executive Summary

Since 1990, the Alaska Department of Health and Social Services has conducted and participated in the surveillance of mortality, morbidity and behavior health risk factors associated with substance use. Many of these activities are federally funded of which the findings are combined with other state-based data to assess trends in behavior and lifestyle choices and critical elements of health education and prevention practices.

The resulting descriptive study provided a baseline epidemiological profile of substance use, abuse, dependence and consequences thereof.

The State Epidemiologic Profile on Substance Use, Abuse and Dependency reports information from on-going statewide surveillance programs (such as the Behavioral Risk Factor Surveillance System, the Youth Risk Behavior Survey, and the National Survey on Drug Use and Health) that are melded with state-based mortality, morbidity, and justice data. The resulting descriptive study provides baseline and trend information on substance use, abuse, dependence in Alaska and select consequences thereof.

Using the Strategic Prevention Framework developed by the Substance Abuse and Mental Health Services Administration, an epidemiologic workgroup was established to--first, collect and consolidate data pertaining to substance consumption and consequence; second, analyze and evaluate information for long-term use and statistically significant findings; third, prioritize outcome measures used by health planners, health promotion/disease prevention program managers, policymakers and community advocates; and fourth, identify elements needing improved surveillance and new elements needing evaluation. In addition, a data directory was initiated for managers and planners to identify potential data sources from select agencies monitoring the prevalence of behaviors associated with consumption of and consequences following substance use, abuse and dependency, and for agencies to describe their on-going data collection activities and database structures and communicate current projects related to substance use.

Significant outcome measures include:

Morbidity and Mortality

- Of the ten leading causes of death in Alaska, all except Alzheimer's disease can be associated with substance abuse as a potential contributing cause of death.
- Leading causes of premature death and years of potential life lost, such as chronic liver disease, cirrhosis, homicide, suicide, and unintentional injury, were strongly associated with substance abuse.
- From 2005 to 2009, males were 2.3 times more likely than females to die from unintentional injury, where prevalence was highest among males aged 15-24 years.

Alcohol

- Nearly 25% of all hospitalized injury patients had suspected or proven alcohol use injuries. Unintentional injury was the third leading cause of death in Alaska.
- From 2005 to 2009, nearly one of every 13 deaths among Alaska Natives was an alcohol induced death.
- Between 2005 and 2009, 68 recreational boating events with 75 fatalities

occurred in Alaska, of which one-third were associated with known alcohol use.
- The number of high school suspensions declined 41% from 222 in 2006 to 131 in 2008.
- From 2000 to 2009, the annual number of alcohol-related fatal crashes declined from 48% in 2000 to 37% in 2009.
- From 2005 to 2009, the prevalence of alcohol-related motor vehicle events among Alaska high school youth continued to decline and was at its lowest rate in 10 years. However, one out of four youth still accompanied a driver who had been drinking alcohol.

Illicit Drugs

- Boroughs in the Southcentral region of Alaska with greater population density and/or boroughs exhibiting experiencing rapid growth had higher rates of drug induced death; however, the highest rate in Alaska was found in the Southeast borough of Wrangell-Petersburg.
- Over one-tenth of all hospitalized injury patients had suspected or proven drug use injuries.
- From 2005-2009, prevalence of drug induced death among Alaska Native females aged 25-34 years and 45-54 years were higher than males.
- The numbers of high school suspensions had not significantly change from 464 in 2006 to 446 in 2008, whereas middle school suspensions declined 34% from 128 in 2006 to 82 in 2008.

Tobacco

- From 2005-2009 tobacco attributable deaths were more than 1.6 times higher than deaths due to alcohol, drug, and chronic liver disease/cirrhosis combined.
- Alaska Natives had the highest rate of death attributed to smoking, of which Native males were twice as likely to die from tobacco use as Native females.

Data Improvement Recommendations include:

- Screening for alcohol and commonly abused drugs in Alaska, especially those of greatest public health concern, should be performed on all Medical Examiner cases.
- Capability for rapid in-state toxicology analyses of common substances of abuse should be supported, maintained and improved.
- An epidemiologic workgroup should be maintained to assess data quality and evaluate data relevance and usefulness and to identify new data associated with substance abuse, dependency and treatment in order to accurately measure change within at-risk populations.
- An internet-based information system should be established, maintained and improved to improve the use and understanding of mortality, morbidity, and behavioral risk factors associated with substance use and ensuing consequences.

How to Use This Document

The Alaska Epidemiologic Profile on Substance Use, Abuse and Dependency is a tool for substance abuse prevention and public health planners. The information provides a state-level overview to support efforts related to the Substance Abuse and Mental Health Services Administration (SAMHSA) – Strategic Prevention Framework State Incentive Grants (SPF SIG).

The following sections present information on the establishment of the Substance Abuse Epidemiological Workgroup (SEW), formerly the Substance Abuse Epidemiological Outcomes Workgroup (SEOW), their processes to create this document, and several major indicators of Alaska's substance consumption and consequences related to use and dependency. These indicators include measures of alcohol and tobacco sales; self-reported substance abuse consumption behavior (from statewide surveys); and outcomes including morbidity, mortality, treatment, and criminal activity associated with substance abuse and dependency.

Data were analyzed by age, gender, race/ethnicity, and high school grade level to produce statistical tables and charts. The analysis results were reported as numbers of events, rates on total population, and rates of specific populations. A combined 5-year period (e.g. 2005-2009) was used whenever possible.

Data in this document should not be viewed as all inclusive, but as a summary of information from various sources to help guide researchers, program managers, policymakers, and other interested person(s) to identify data sources for further exploration and in-depth assessment.

Data Resources-National

- Alcohol Epidemiologic Data System, National Institute on Alcohol Abuse and Alcoholism, Division of Epidemiology and Prevention Research, National Institutes of Health. Http://www.niaaa.nih.gov/Resources/DatabaseResources/QuickFacts/AlcoholSales/default.htm
- Behavioral Risk Factor Surveillance System (BRFSS). Http://www.cdc.gov/brfss
- U.S. Census. Http://www.census.gov/main/www/cen2000.html
- Fatality Analysis Reporting System (FARS), National Highway Traffic Safety Administration. Http://www-fars.nhtsa.dot.gov/Main/index.aspx
- National Center for Health Statistics (NCHS), Multiple Causes of Death Public Use File, 1990-99, 1999-04. Http://www.cdc.gov/nchs/nvss.htm
- National Survey on Drug Use and Health (NSDUH), Office of Applied Studies, Substance Abuse and Mental Health Services Administration. Http://www.oas.samhsa.gov/2k4State/appB.htm
- US Dept. of Health and Human Services. Substance Abuse and Mental Health Statistics. Office of Applied Studies. Http://oas.samhsa.gov/tobacco.htm
- Youth Risk Behavior Surveillance System (YRBSS). Http://www.cdc.gov/HealthyYouth/yrbs/index.htm

Data Resources-State

- Alaska Behavioral Risk Factor Surveillance System (BFRSS), Section of Chronic Disease Prevention and Control, Division of Public Health, Alaska

Department of Health and Social Services. Http://www.hss.state.ak.us/dph/chronic/hsl/brfss/

- Alaska Bureau of Vital Statistics, Division of Public Health, Alaska Department of Health and Social Services. Http://www.hss.state.ak.us/dph/bvs/default.htm
- Alaska Populations Estimates and Overview, Research and Analysis Section, Alaska Department of Labor. Http://almis.labor.state.ak.us/
- Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), Maternal and Child Health Epidemiology Unit, Section of Women's, Children's and Family Health, Division of Public Health, Alaska Department of Health and Social Services. Http://www.epi.hss.state.ak.us/mchepi/
- Alaska Tobacco Facts, Section of Chronic Disease Prevention and Health Promotion, Division of Public Health, Alaska Department of Health and Social Services. Http://www.hss.state.ak.us/dph/chronic/tobacco/PDF/Tobacco_Facts.pdf
- Alaska Uniform Crime Reporting (UCR) Program, Criminal Records and Identification Bureau, Division of Statewide Services, Alaska Department of Public Safety. Http://www.dps.alaska.gov/Statewide/UCR.aspx
- Alaska Youth Risk Behavior Survey (YRBS), Section of Chronic Disease Prevention and Health Promotion, Division of Public Health, Alaska Department of Health and Social Services. Http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm
- Juvenile Justice Data, Division of Juvenile Justice, Alaska Department of Health and Social Services. Http://health.hss.state.ak.us/djj/
- Tobacco Tax Program, Tax Division Programs, Alaska Department of Revenue. Http://www.tax.state.ak.us

Data Limitations

Many agencies and organizations published annual summaries of data survey results, and other information; however the release of the published material varied from months to years after the close of a calendar year. This report focused on a five-year data period from 2005 through 2009 to facilitate comparison between datasets and provide a statistically valid statewide assessment of resources. While some data was not available for 2005-2009, the most recent datasets were used. Revised reports will be completed as data is made available.

This report adopted the guidelines used by the Alaska Bureau for Vital Statistics for mortality rates. U.S. death rates shown in this report were recomputed based on revised populations that were consistent with the 2000 census levels. These estimates were produced under a collaborative arrangement between the National Center for Health Statistics and the U.S. Census Bureau. Rates were based on the 2000 census counts by age, race, and sex, modified to be consistent with the U.S. Office of Management and Budget racial categories as of 1977 and historical categories for death data. Death rates previously published in annual reports prior to 2000 were based on post census population estimates derived from the 1990 census.

The crude death rate was used to measure mortality. Since the age composition of the population can greatly influence the crude death rate, age adjustment was used in mortality statistics. Beginning in 1999, the U.S. and the Alaska Bureau of Vital Statistics used the year 2000 standard population for age adjustment.

Some data was not available statewide and limited to specific geographical areas. When data was not available at the borough and census areas level, information was presented by regions.

Reported race by census area was problematic due to changes in assigning race. Alaska Bureau of Vital Statistic decided not to calculate any rates by race and census area due to this problem.

The Alaska BRFSS used both the standard CDC-funded survey instrument as well as a supplemental survey, predominantly funded by the Alaska Tobacco Control Program. The supplemental survey was conducted using standard BRFSS protocols and employs the same marginal weights. This second survey provided additional information on tobacco use in Alaska and augments information on low prevalence chronic diseases such as diabetes and cardiovascular disease. Data summarized by CDC and national organizations did not employ the additional survey and therefore their prevalence rates may differ from those produced by the Alaska Health Survey Laboratory.

The Alaska Youth Risk Behavior Surveillance System is composed of a CDC-funded high school sample as well as local school district samples of their high school and middle school students. The statewide sample is intended to be representation of high school students throughout Alaska attending traditional high schools. Alaska has also conducted statewide samples of its alternative high schools for students at risk for not completing high school in a traditional setting and youth incarcerated in correctional facilities. Statewide estimates are based upon datasets returned from CDC and will conform with national data sources such as Youth Online (http://apps.nccd.cdc.gov/youthonline/). Alaska may present its data in alternate groupings such as by academic achievement and Alaska-specific racial groupings. The YRBS has been administered in Alaska seven times, 1995, 1999, 2001, 2003, 2005, 2007 and 2009. Weighted (representative) data were collected in 1995, 2003, 2007 and 2009, resulting in published reports. (The 1999 YRBS survey was conducted despite the lack of participation of the Anchorage School District. Although there was adequate participation from the remaining school districts to result in "weighted" or "representative" data, it was only representative to student population outside of the Municipality of Anchorage and was therefore not included in this state-level profile.) In 2001, the YRBS was not administered in Alaska; and in 2005, the YRBS did not receive an adequate participation rate to be considered representative of the state. In 2009, Alaska also conducted statewide samples of its alternative high schools for students at risk for not completing high school in a traditional setting and youth incarcerated in correctional facilities.

Statewide estimates were based upon datasets returned from CDC that conformed with national data sources such as Youth Online (http://apps.nccd.cdc.gov/youthonline/). Alaska presented some data in alternate groupings such as by academic achievement and Alaska-specific racial groupings.

Introduction

Purpose

The purpose of this profile is to summarize information from new and established data sources for use in prevention/intervention planning, monitoring, and evaluation and provide recommendations to ensure comparable variable definitions and to improve data collection for future surveillance.

The profile summarizes information from several established sources for use in prevention/ intervention planning, monitoring, and evaluation

Background: Strategic Prevention Framework State Incentive Grant (SPF SIG)

The SAMHSA Center for Substance Abuse Prevention (CSAP) funds a process by which an Epidemiological Outcomes Workgroup can be established in all 50 states, DC and the U. S. Territories. In support of this process, CSAP developed and implemented the Strategic Prevention Framework (SPF).

The SPF uses a five-step process known to promote youth development, reduce risk-taking behaviors, build assets and resilience, and prevent problem behaviors across the life span (Figure 1). The five-step process includes: **Assessment** (data collection, review and analysis); **Capacity** (assessment and cataloguing of human, dollar, agency and service capacity); **Planning** (using data and capacity assessments, developing a strategic plan of action for the state or community); **Implementation** (developing and implementing appropriate programs and projects to provided needed services); and **Evaluation** (are the programs working, is change happening, are services "making a difference").

Figure 1. Strategic Plan Framework Processes

In 2006, the Alaska Department of Health and Social Services, Division of Behavioral Health (DHSS, DBH) received funding from CSAP for the development, implementation and maintenance of a Substance Abuse Epidemiologic Outcomes Workgroup (SEOW). The role of the SEOW was to assist in developing an initial epidemiological profile on substance use, abuse and dependency in Alaska by–

1. identifying available data across disciplines;
2. helping to design the focus of the profile that would be most useful for the State of Alaska and its end-users; and
3. providing a critical eye to assess core issues, root causes and other areas of concern that most impact our state's overall health and well-being relating to substance use, abuse and dependency.

Alaska's SEOW completed Step 1 of the SPF in November 2008—a cross-discipline, population-based review of alcohol, illicit drug, and tobacco data and other statistics associated with their use to better understand the impact on the health of Alaskans and to guide the development of a successful strategic plan of action to prevent and improve these conditions. Over the next three years, the SEOW maintained and improved its ability to identify key data constructs for each type of substance use and its consequences; capture data from new sources for review and inclusion in the State epidemiologic profile; and publish a 5-year data summary.

In July 2009, DHSS, DBH was awarded a SPF State Incentive Grant (SIG) that enabled the State to continue its efforts through the Substance Abuse Epidemiologic Workgroup (SEW). As an integral part of the SPF SIG process, the SEW, composed of statistical and prevention program experts (Appendix A), established a clear, systematic approach to evaluate surveillance information and new scientifically valid evidence related to substance use, consequences of continued use, abuse and dependency, and protective and risk factors.

Having a broad scope of state-level data across multiple professional disciplines pertaining to the aforementioned constructs, it was necessary for the SEW to expand and refine the process initiated by the SEOW. Besides the review of all potential substance-related data, the SEW assessed issues impacting the past, present, and future quality of the data used for the indicators; and scored the overall relevance of data as it related to the constructs .

Over the 5-year activity period of the SPF SIG, the SEW will continue to be responsible for 1) on-going review of substance-related consumption, consequence, and influences data that best described substance use, abuse, dependency and treatment in Alaska; 2) identifying measures for data development to improve substance-related surveillance for future SPF activities; and 3) providing direction and advice on format and content of an annual report titled "State Epidemiologic Profile on Substance Use, Abuse, and Dependency".

Selecting Potential Indicators for Review

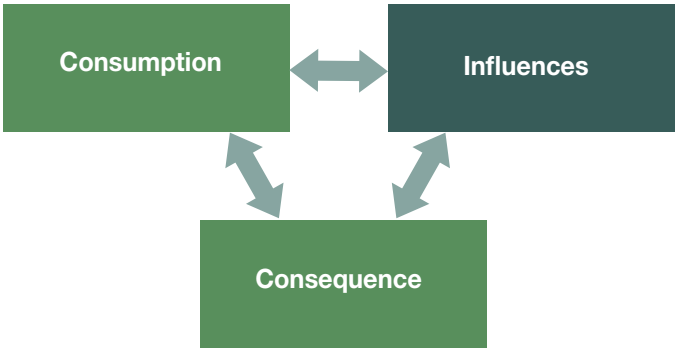
The importance of having a comprehensive and integrated compilation of data across disciplines is the foundation for determining key constructs that truly show the impact of alcohol, illicit drug use, and tobacco in Alaska. The SPF relationship diagram (Figure 2) illustrates the sequence of events from substance-related problems to the development of public policies, practices, and programs for prevention.

Figure 2. SPF Relationship Diagram

As a data driven process for prevention, the first and most critical step is identification all pertinent information and assessment of its relevance to substance use issues in order to expand our understanding and to clarify contributing factors. While SAMHSA/CSAP recommends that the prioritization process focus predomi-

nantly on consumption and consequences related to substance abuse, influences is included in the profile, thus covering the three over-arching constructs represented by the SPF (Figure 3).

Figure 3. Diagram Illustrating the Relationship between Constructs



Consumption refers to the use patterns of alcohol, illicit drugs, and tobacco such as current, episodic and/or lifetime use. For example, key constructs for consumption must detail drinking behavior (i.e., lifetime, initial age, daily/monthly habits) or describe the prevalence of other behavioral risk factors (i.e., driving after drinking, sexual activity while under the influence of alcohol or illicit drugs). Economic data regarding sales, transport, and geographic restrictions for purchase and/or possession is also used to conceptualize consumer patterns and the extent of the problem.

Factors such as parental modeling, interpersonal interaction, and psychosocial and socioeconomic conditions contribute to substance use and other risk-taking behaviors

Similarly, Consequences of substance use includes mortality, morbidity, and other undesirable events such as social problems, unprotected sex, violence, motor vehicle crashes, physical dependencies, and psychological addiction. Alcohol-induced mortality, drug-induced mortality, and tobacco use related mortality are examples of consequences as a result of substance use.

Influences associated with substance use are based on factors leading to initial and chronic substance abuse (pre-, early, chronic, and post-abuse cycles). Influences affecting productivity, security, social connectedness and health could manifest within family and community environments proceeding, during, and following substance use. This construct focuses on extensive research that demonstrates a strong association between life domain influences and substance consumption and consequences issues. Factors such as parental modeling, interpersonal interaction, and psychosocial and socioeconomic conditions contribute to substance use and other risk-taking behaviors, and, if not included, limit strategic planning and prevention measures. Thus, the influences data is an important part of the SPF process. A data subcommittee was tasked to: 1) identify and prioritize the contributing factors that influence substance use and abuse, and 2) identify existing and recommended new indicators to monitor over time. Information on influences that had strong association with substance consumption or consequences were presented to the advisory group for inclusion in their prioritization deliberations and will be included in future revisions of the epidemiologic profile.

Having already identified a broad scope of state-level data across multiple professional disciplines pertaining to alcohol, illicit drug, tobacco use and outcomes highly associated with substance use and abuse, SEW as a whole reviewed all

sources of information either previously used in the epidemiologic profile or identified as a potential future source of information from national and state agencies and other unique data reserves (Appendix B). The purpose of the exercise helped to 1) ensure the continued availability of datasets and 2) evaluate longevity of the measures as useful indicators of substance abuse and prevention activities. The SEW also assessed case definitions for each data indicator as a quality improvement activity to provide best practice recommendations for current and future surveillance.

SEW members then self-assigned themselves to one or more of these three data subcommittees based on professional experience—either being directly responsible for collection and analysis of targeted data or being highly familiar with data collection processes and analysis. The subcommittees were tasked with reviewing potential data sources and data indicators (Appendix C); or contacting appropriate source agencies/organizations familiar with the data and requesting updated analysis reports or data subsets for analysis by SEW support staff. The subcommittees were also tasked with identifying any new information not previously available or excluded due to quality issues. Data providers not currently participating with the SEW were invited to scheduled meetings to describe the data collection process(es), analysis practices and protocols, and any trends and patterns.

To truly show the impact of alcohol, tobacco and other drug use and abuse on the overall health of Alaska, comprehensive information composed of accurate, timely and relevant information is key.

In addition to identification of potential data sources, the subcommittees updated a data directory (originally developed 2006 by the SEOW) to function as a roadmap for future program planning and research needs. The directory entries included—

- Time span; initiation of surveillance
- Consistency of data collection
- Data definitions
- Population specificity
- Long-term retention plan for data
- Short-term "snapshot"
- Barriers/restrictions to data access

Data Assessment and Prioritization Process for Consumption and Consequences Indicators

The SEW developed a three-step procedure to assess data availability and quality in order to select indicators of greatest need and importance. Step One eliminated any dataset without sufficient scope, i.e., provide generalizable information for Alaska's population for at least 5 years. Step Two evaluated the data relevance and usefulness in order to measure change within at-risk populations. These first two processes provided a refined and robust set of information for statewide prioritization for strategic planning. The third and final step determined the order of prioritization relative to the ability to foster long-term change and improve physical and mental health of Alaska populace.

Step One: Data Availability and Quality Evaluation

Each indicator within a dataset was scored on a scale of 0 to 2 (Table 1a) for each of five data quality factors: availability, validity, timeliness, consistency, and sensitivity (Table 1b). The sum of these 5 scores, which ranged from 0 to 10, were then averaged. A high score indicated datasets that provided the highest quality information for each of the constructs. Low scores indicated datasets that were not usable to track consumption and consequence issues at a statewide level.

Since scores were subjective, standard deviation was calculated for each set of data indicator scores as part of the evaluation process in order to assess consensus among subcommittee members. Average scores under 7 were deemed of low quality. Average scores of ≥7 plus a standard deviation of <2 were subsequently evaluated for relevance to substance use, abuse, dependency, and treatment issues.

Table 1a. Scoring Scale for Phase One: Data Quality

0	Absence of desired quality
1	Lack of quality
2	High level of quality

Table 1b. Data Indicator Quality Scoring Criteria

Availability	• The data should be readily available and accessible. The measure must be available in disaggregated form at the age/gender/race level. • Is the data available through 2008 or 2009? • Is the data currently available for past 5 years or from 2004-2008?
Validity	• The measure must meet basic criteria for validity. There must be research-based evidence that the indicator accurately measures the specific construct and yields a true snapshot of the phenomenon at the time of the assessment. • Does this indicator provide a true representation of what is actually occurring in our population (state-level)?
Timeliness	• Are we able to get the information in a reasonable amount of time? • Are there sporadic delays for getting the information? • Are we able to analyze the information in a reasonable amount of time?
Consistency	• The measure must be consistent. The method or means of collecting and organizing data should be relatively unchanged over time, such that the method of measurement is the same from time i to i+1. Alternatively, if the method of measure has changed, sound data should exist that determine and allow adjustment for differences resulting from data collection changes. • Is the question asked the same way over a period of years? • Is the indicator collected the same way over a period of time?
Sensitivity	• The measure must be sufficiently sensitive to detect change over time that might be associated with changes in alcohol, illicit drug, or tobacco use. • If we collect this information, will we see a change over the five year period of our grant in the indicator?

It is important to note that decisions at this stage were based primarily on professional experience of state data managers and other professionals who work with the data on a regularly basis. However, this assessment made it possible to recognize data issues such as (e.g., data collection lapses, gaps in surveillance, definition changes) impacting the overall quality of the datasets. To truly show

the impact of substance use and abuse on the overall health of Alaska, comprehensive information composed of accurate, timely and relevant data is key. The importance of having an integrated compilation of data across disciplines will foster a better understanding of substance use characteristics and circumstances and ensuing advocacy for resources to continue the work of preventing, intervening, treating and providing long-term recovery services.

Step Two: Data Relevance

During Step 2, individual indicators were scored as low, medium, or high (1, 2, or 3) (Table 2a), based on four relevance factors: severity, magnitude, cultural sensitivity, and changeability (Table 2b).

Table 2a. Scoring Scale for Phase Two-Data Relevance

1	Low level of relevance or mostly lacking
2	Moderate level of relevance
3	High level of relevance factor

Table 2b. Data Relevance Scoring Criteria

Severity	• The measure must examine the potential impact or level of outcomes on individuals or society that are associated with substance abuse. • How serious is the nature/extent of outcomes associated with substance abuse compared to those of other problems? • Is the measure available to quantify severity, such as Years of Potential Life Lost, Quality-Adjusted Life Years, or Disability-Adjusted Life Years?
Magnitude	• The measure must be described in terms of absolute number (e.g., total number of cases, frequency of occurrence (e.g., percents), or rates (e.g., number of cases per some standard unit). • Are incidence and prevalence rates adjusted for population variations (per 100,000 people)?
Cultural Sensitivity	• Assessment of cultural sensitivity addresses the difference of the individual, family, or community culture and values and understanding the range of dynamics that result from the interaction of people from different cultures. • Is there an ability to adapt individual interventions and programs to fit the cultural context of the individual, family, or community?
Changeability	• Assessment of the changeability of substance abuse problems should focus on the feasibility to prevent or control the problem or the consequence(s). • Can potential change be measureable in 5 years? • Are there opportunities that may affect present or future burden of the measure? • Is there scientific evidence about effectiveness of interventions?

Scores for each indicator were then placed into the following formula:
Relevance Score = (Severity + Magnitude + Cultural Sensitivity) x Changeability

This formula allowed each factor to be weighted, of which the last and most critical of all factors was the ability to effect change. It was important to recognize that the effectiveness of an intervention may be null or economically or legally unfeasible. If changeability = 0, then the product of the equation equaled zero; the data indicator was eliminated from further evaluation regardless of the score given to the other three relevance factors.

The scoring system was adopted and modified from the Wyoming SPF and was similar to the Centers for Disease Control and Prevention's "Guide for Establishing Public health Priorities."

Step Three: Prioritization

Prioritization was a discovery process involving both the SEW and the Alaska SPF SIG Advisory Council. Following a presentation of the SEW's findings and numeric ranking of data indicators, the Advisory Council provided their collective recommendations on prioritizing substance use constructs. The finalized assessment and prioritization was incorporated into the State's SPF SIC Strategic Plan, submitted to CSAP. A copy Alaska's approved SPF SIG Strategic Plan for the prevention of substance abuse is available at http://hss.state.ak.us/dbh/prevention/programs/spfsig/pdfs/SPFSIG_AlaskaStrategicPlan.pdf .

Profile Overview

The following information summarizes select descriptive analyses of individual datasets. Each section of the epidemiologic profile begins with a problem statement followed by applicable definitions of data elements, a brief description of the data presented and website address. These data and/or their summary reports also can be accessed using the Data Resource information listed at the front of this report.

SECTION 1

CONSUMPTION

Problem Statement: Alcohol Sales and Consumption

The prevalence of alcohol use, heavy drinking, and binge drinking among adults and youth in Alaska have historically been higher than the national averages. Trends of alcohol consumption varied among age groups, gender and race. However, Alaska's rate of binge alcohol use was among the highest in the nation.

Alcohol use among youth did not vary significantly from national averages. However, alcohol use was associated with other high risk behaviors including abuse of other substances, sexual activity, behavior resulting in injury, delinquency, and criminal behavior in the majority of cases.

Data Analysis

Data on alcohol sales and consumption was provided through Alcohol Epidemiologic Data System (AEDS), the Youth Risk Behavior Survey (YRBS), the Behavioral Risk Factor Surveillance System (BRFSS), and National Survey on Drug Use and Health (NSDUH). Some rates were not available. Limiting factors include low number of observations, insufficient sample size or CI range that is too broad to obtain reliable results. Most national averages were available for most recent year comparison.

Definition: 1 drink = 1 can of beer, 1 glass of wine, 1 cocktail, 1 bottled wine cooler, or 1 shot of liquor

Definition: 1 drink = 1 can of beer, 1 glass of wine, 1 cocktail, 1 bottled wine cooler, or 1 shot of liquor

Alcohol Epidemiologic Data System (AEDS)

Http://www.niaaa.nih.gov/Resources/DatabaseResources/QuickFacts/AlcoholSales/default.htm

Ethanol consumption was consistently greater than national averages for all alcohol-containing beverages. While all alcohol beverages were higher than national statistics, spirits were 1.5 times higher in 2007 (Table 1.1; Chart 1.1). Currently, 107 communities have some restriction that prohibits alcohol sales and possession (Appendix F).

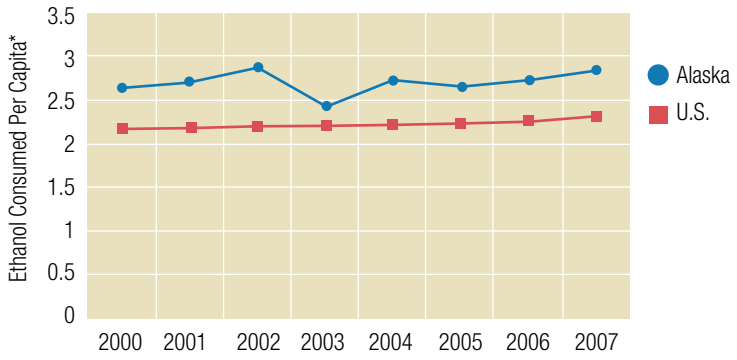
Table 1.1. Trends in Ethanol Consumed Per Capita*, Alaska

Beverage Type	1999	2000	2001	2002	2003	2004	2005	2006	2007	U.S. 2007
Beer	1.44	1.34	1.34	1.36	1.27	1.32	1.24	1.24	1.32	1.21
Spirits	0.98	0.92	0.97	1.08	0.79	0.96	0.99	1.02	1.07	0.73
Wine	0.39	0.37	0.40	0.42	0.37	0.45	0.43	0.46	0.45	0.38

*Total sales of ethanol in gallons per 10,000 population age 14 years and older

AEDS uses a population of persons aged 14 and older to calculate per capita consumption rates. Although age 14 is below the minimum legal age for the purchase of alcoholic beverages throughout the United States, most self-report surveys indicate that many 14-year-olds drink alcoholic beverages.

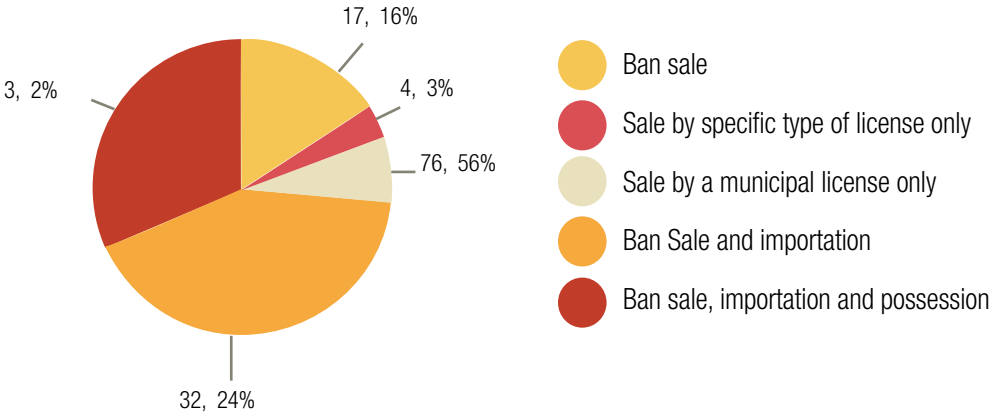
Chart 1.1. Trends in Ethanol Consumed Per Capita, All Beverages, Alaska



*Total sales of ethanol in gallons per 10,000 population age 14 years and older

Nearly 75% of communities with alcohol restrictions ban the sale of alcohol (Chart 1.2). Of these communities, most had lower rates of serious injury resulting from assault, motor vehicle collisions and other causes. "Dry" communities (banning sale importation and possession of alcohol) with a local police presence had a lower age-adjusted rate of serious injury caused by assault.

Chart 1.2. Communities with Alcohol Restrictions, Alaska, 2006, N=107



Youth Risk Behavior Survey (YRBS)

http://apps.nccd.cdc.gov/youthonline/

Definitions of alcohol use:

- Current alcohol use was defined as having one drink within the past 30 days.
- Heavy alcohol use was defined as having more than two drinks per day for males and one drink per day for females.
- Binge or episodic heavy alcohol use was defined as having five or more drinks within a couple of hours.

The prevalence of alcohol use before 13 years of age, current and binge alcohol use was higher among males, while the prevalence of any alcohol use continued to be

slightly higher among females (Table 1.2). However, report of alcohol use before sexual intercourse was significant lower for both male and female students than preceding surveys and lower than the 2009 national averages. Overall the 2009 YRBS results for All Grades were lower than the national averages, indicating a sustained long-term decline of current and episodic alcohol use among youth (Chart 1.3 and Chart 1.4). No significant difference in prevalence was found by between Alaska Natives and non-Alaska Natives.

Table 1.2. Trends in Alcohol Use Among Youth, by Gender, Alaska YRBS

	1995	1999	2003	2007	2009	U.S. 2007	U.S. 2009
Female							
% Ever Drank Alcohol	80.7	--	75.3	73.9	67.8	75.0	74.2
% Alcohol Before 13	34.1	29.7	20.4	16.3	16.0	20.0	18.1
% Current Drinking	44.6	--	37.4	39.2	32.9	44.6	42.9
% Binge Alcohol Use	27.2	32.6	23.4	23.9	19.9	24.1	23.4
% Drank Alcohol or Used Drugs							
Before Last Sexual Intercourse	21.6	--	22.5	21.5	15.2	17.7	17.1
% Drank on School Property	4.7	4.4	4.0	4.0	2.3	4.1	--
Male							
% Ever Drank Alcohol	79.6	--	74.6	73.4	65.4	74.3	70.8
% Alcohol Before 13	39.1	37.1	25.6	24.0	17.6	27.4	23.7
% Current Drinking	50.1	--	39.6	40.0	33.5	44.7	40.8
% Binge Alcohol Use	35.0	35.1	29.1	27.3	23.3	27.8	25.0
% Drank Alcohol or Used Drugs							
Before Last Sexual Intercourse	31.3	--	27.8	22.9	18.6	27.5	25.9
% Drank on School Property	6.7	7.9	5.4	4.0	3.3	4.6	--

Chart 1.3. Trends in Youth Reporting Alcohol Use Before Age 13, by Grade, Alaska YRBS

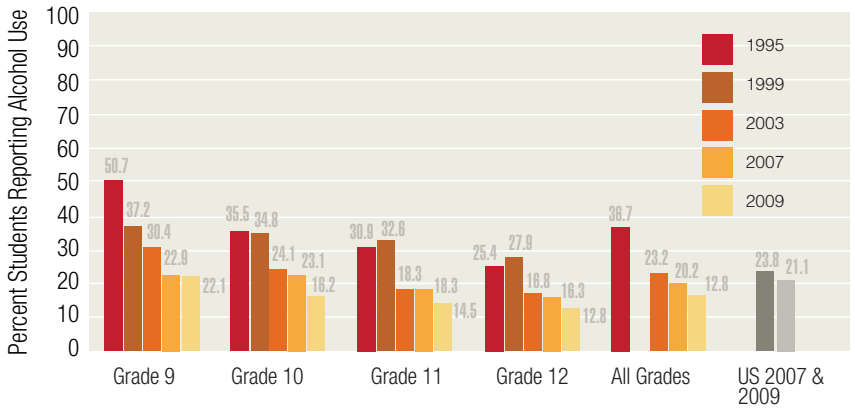
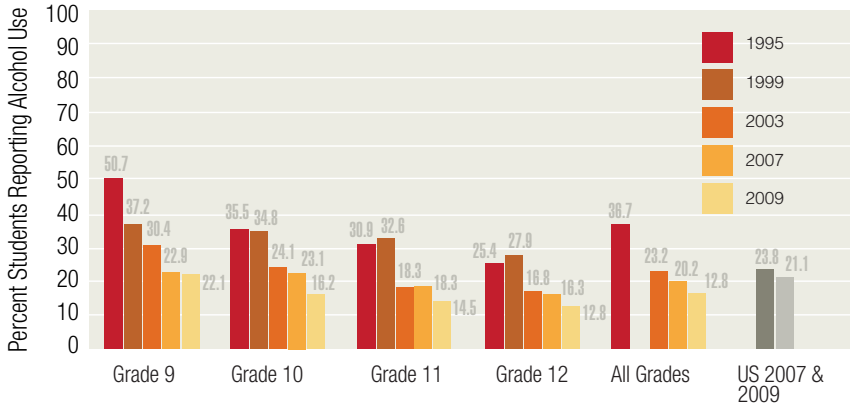


Chart 1.4. Trends in Youth Reporting Binge Drinking, by Grade, Alaska YRBS



Since the initial administration of the YRBS in Alaska (1995), alternative schools serving at-risk students were routinely excluded from traditional statewide YRBS surveys. In 2009, high school students in Alaska's alternative schools were conducted for the first time. Fifteen alternative schools were chosen to be included in the survey and 1,020 students completed the survey (response rate was 71%.) Students from alternative schools reported significantly higher rates for all alcohol use indicators when compared to their traditional school counterparts and were similar to averages reported by a 1998 National Alternative Schools Survey (Chart 1.5, 1.6, 1.7, and 1.8).

Chart 1.5. Percentage of Youth Reporting Lifetime Use of Alcohol Comparing Traditional and Alternative Schools, by Gender and by Grade, Alaska YRBS

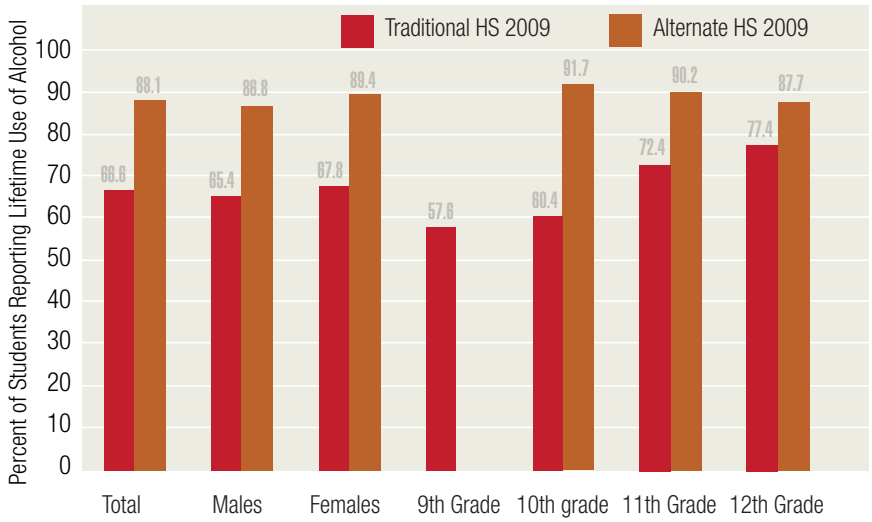


Chart 1.6. Percentage of Youth Reporting Alcohol Use Before Age 13 Comparing Traditional and Alternative Schools, by Gender and by Grade, Alaska YRBS

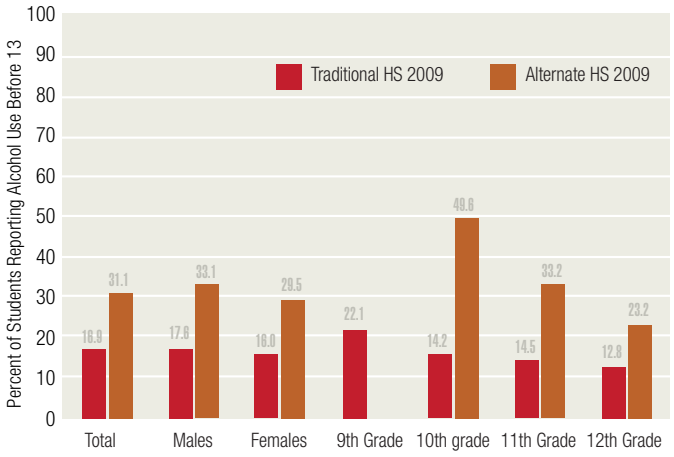


Chart 1.7. Percent of Youth Reporting Current Alcohol Use Comparing Traditional and Alternative Schools, by Gender and by Grade, Alaska YRBS

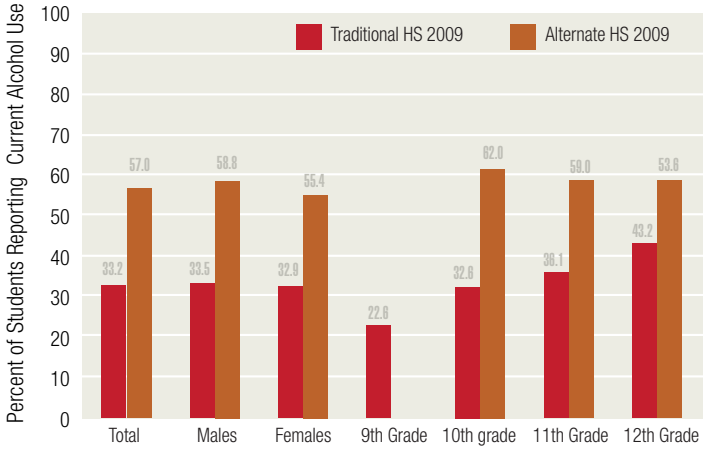
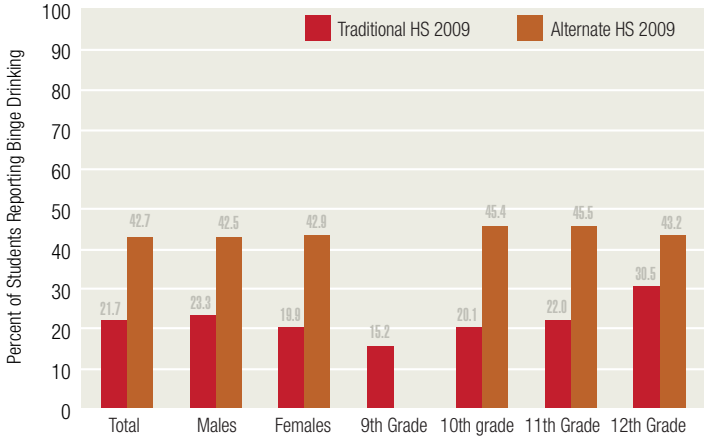


Chart 1.8. Percent of Youth Reporting Current Binge Drinking Comparing Traditional and Alternative Schools, by Gender and by Grade, Alaska YRBS



Behavioral risk Factor Surveillance System (BRFSS)

http://apps.nccd.cdc.gov/brfss/

Definitions of alcohol use:

- Current alcohol use was defined as having one drink within the past 30 days.
- Heavy alcohol use was defined as having more than two drinks per day for males and one drink per day for females.
- Binge alcohol use was defined as having five or more drinks on one occasion.

Over 60% of adults in Alaska reported current alcohol use. Results of reported use were variable from year to year. Reported current alcohol use among males continued to decline, falling below 2009 national averages, however reported current use among females remained significantly higher than the 2009 national average (Table 1.3). Binge alcohol use was nearly twice as great for males than females.

Alcohol use among females remained significantly higher than the 2009 national average.

Table 1.3. Trends in Alcohol Use Among Adults, by Gender, Alaska BRFSS

	2005	2006	2007	2008	2009	U.S. 2009
Female						
% Binge Alcohol Use	9.7	11.9	12.5	9.8	12.4	10.6
% Current Alcohol Use	52.0	52.7	47.1	59.0	52.4	46.3
% Heavy Alcohol Use	4.2	3.8	6.4	4.8	6.5	4.1
Male						
% Binge Alcohol Use	24.9	21.3	25.4	22.1	22.9	21.0
% Current Alcohol Use	66.8	64.1	62.0	60.7	57.7	61.2
% Heavy Alcohol Use	5.9	7.8	6.4	6.8	5.9	5.8

Report of binge, current, and heavy alcohol use by age group were variable from 2005 to 2009. In 2009 the prevalence of alcohol use in most categories was higher than national averages for adults 25 years and older. Prevalence of current and binge alcohol use was higher among adults 25 through 44 years and became less prevalent with each older age group (Table 1.4).

Table 1.4. Trends in Alcohol Use Among Adults, by Age Group, Alaska BRFSS

	2005	2006	2007	2008	2009	U.S. 2009
Ages 18 thru 24						
% Binge Alcohol Use	--	19.2	14.4	13.6	11.7	19.5
% Current Alcohol Use	--	--	--	--	--	49.8
% Heavy Alcohol Use	7.5	5.9	5.2	1.8	3.5	6.2
Ages 25 thru 34						
% Binge Alcohol Use	23.4	33.7	36.3	26.5	23.8	26.0
% Current Alcohol Use	64.1	69.3	65.4	62.7	63.4	60.1
% Heavy Alcohol Use	6.4	8.5	8.6	4.9	6.3	5.6
Ages 35 thru 44						
% Binge Alcohol Use	17.3	23.9	31.8	17.9	29.6	19.1
% Current Alcohol Use	61.4	64.0	57.1	57.5	63.4	59.8
% Heavy Alcohol Use	4.5	5.6	5.6	3.8	7.2	4.9
Ages 45 thru 54						
% Binge Alcohol Use	13.7	14.8	16.5	17.0	19.0	14.6
% Current Alcohol Use	64.8	60.7	55.8	60.9	57.8	56.6
% Heavy Alcohol Use	4.3	5.7	8.3	5.6	8.1	5.4
Ages 55 thru 64						
% Binge Alcohol Use	11.5	5.2	11.8	11.3	13.1	7.6
% Current Alcohol Use	57.2	52.1	54.6	51.4	56.5	53.0
% Heavy Alcohol Use	4.5	2.9	5.7	6.6	6.1	4.6
Ages 65 and over						
% Binge Alcohol Use	5.2	4.8	3.6	3.3	5.1	3.0
% Current Alcohol Use	42.7	41.5	36.8	42.5	39.9	40.4
% Heavy Alcohol Use	3.3	6.4	2.3	3.4	4.0	3.3

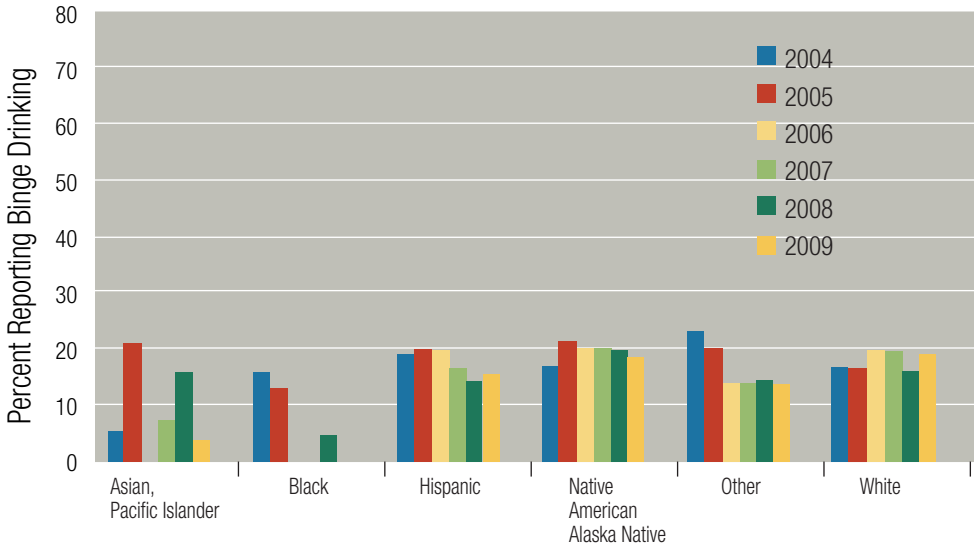
In 2009, binge alcohol use was reported by 18% of Alaskan adults and prevalence was higher in Alaska than national averages for all race categories except Asians/ Pacific Islanders and Blacks. Prevalence of current alcohol use was higher among Whites followed by Hispanics. Prevalence of heavy alcohol use was higher among Hispanics. No significant differences were found in reported heavy alcohol use except for a period increase among Hispanic adults (Table 1.5; Chart 1.9).

Alcohol use was most prevalent among White adults followed by Hispanic.

Table 1.5. Trends in Alcohol Use Among Adults, by Race and Ethnicity, Alaska BRFSS

	2004	2005	2006	2007	2008	2009	U.S. 2009
Asian, Pacific Islander							
% Binge Alcohol Use	6.2	21.0	--	7.4	15.9	3.7	7.6
% Current Alcohol Use	54.7	50.5	--	31.8	39.1	28.7	45.2
% Heavy Alcohol Use	2.1	2.2	--	0.7	0.6	1.0	2.5
Black							
% Binge Alcohol Use	16.1	13.0	--	--	4.7	--	10.2
% Current Alcohol Use	42.9	31.6	--	--	57.3	--	42.1
% Heavy Alcohol Use	4.5	--	--	--	3.1	--	3.5
Hispanic							
% Binge Alcohol Use	27.7	19.5	19.8	16.5	14.2	15.6	14.7
% Current Alcohol Use	59.0	56.8	61.7	52.7	51.9	50.1	43.1
% Heavy Alcohol Use	6.0	0.6	8.6	0.0	1.0	8.2	5.2
Native American, Alaska Native							
% Binge Alcohol Use	16.7	21.3	14.7	20.3	19.7	18.6	17.4
% Current Alcohol Use	38.6	43.5	37.7	41.3	37.5	40.1	45.3
% Heavy Alcohol Use	5.7	6.2	2.1	5.6	5.8	5.5	7.3
Other							
% Binge Alcohol Use	17.6	18.7	18.4	14.0	14.3	13.7	10.5
% Current Alcohol Use	47.1	55.6	56.3	50.1	43.3	39.5	42.6
% Heavy Alcohol Use	3.8	11.5	4.7	7.2	3.1	1.8	4.9
White							
% Binge Alcohol Use	16.9	16.7	16.5	19.7	16.0	19.0	16.4
% Current Alcohol Use	63.5	64.5	64.0	58.6	59.9	60.1	58.3
% Heavy Alcohol Use	4.7	0.0	7.2	0.0	3.1	3.0	5.4

Chart 1.9. Trends in Adults Reporting Binge Alcohol Use, by Race and Ethnicity, Alaska BRFSS



National Survey on Drug Use and Health (NSDUH)

http://www.oas.samhsa.gov/statesList.cfm

Definitions of alcohol use:

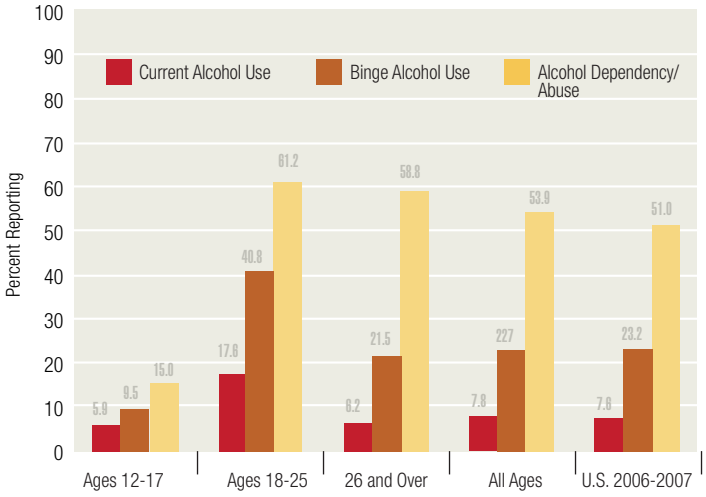
- Current alcohol use was defined as any reported use within the past 30 days.
- Binge alcohol use was defined as having five or more drinks (at the same time or within a couple of hours of each drink) on at least 1 day within the past 30 days.
- Heavy alcohol use was defined as having more than five or more drinks on the same occasion (at the same time or within a couple of hours of each drink) on each of 5 or more days in the past 30 days.

From 2003 to 2007, reported alcohol use had remained relatively unchanged. Fifteen percent of Alaskan youth reported alcohol use and nearly 10% of youth reported binge drinking. Because alcohol can be legally purchased at 21 years of age, a lower prevalence among youth was expected. Over the time the survey was conducted in Alaska, there was no difference in report of current alcohol use by adults (ages 18 and older), of which all were higher than national averages. Of significance was the lack of change in 2006-2007 where 41% of young adults (ages 18-25 years) reported binge drinking and 18% reported alcohol dependency or abuse (Table 1.6; Chart 1.10), matching the 2002-2003 NSDUH survey results (41% and 18%, respectively.)

Table 1.6. Trends in Reported Alcohol Use, by Age Group, Alaska NSDUH

	2003-2004	2004-2005	2005-2006	2006-2007	U.S. 2006-2007
Ages 12 thru 17					
% Alcohol Dependency/Abuse	5.7	6.0	6.1	5.9	5.8
% Binge Alcohol Use	11.4	9.6	9.9	9.5	10.5
% Current Alcohol Use	16.0	14.7	15.0	15.0	17.1
% Needing Treatment in Past Year	5.2	5.7	5.7	5.2	5.5
Ages 18 thru 25					
% Alcohol Dependency/Abuse	16.3	16.1	16.8	17.6	17.5
% Binge Alcohol Use	39.1	37.3	35.9	40.8	41.5
% Current Alcohol Use	57.8	57.4	58.0	61.2	60.7
% Needing Treatment in Past Year	15.8	15.7	16.1	16.7	16.9
Ages 26 and over					
% Alcohol Dependency/Abuse	6.2	6.1	6.3	6.2	6.3
% Binge Alcohol Use	20.1	21.0	20.8	21.5	21.1
% Current Alcohol Use	53.9	55.7	58.2	58.8	54.0
% Needing Treatment in Past Year	5.6	5.8	5.8	5.6	5.9
All Ages					
% Alcohol Dependency/Abuse	7.4	7.5	7.8	7.8	7.7
% Binge Alcohol Use	21.5	21.8	21.6	22.7	22.7
% Current Alcohol Use	49.3	50.6	52.7	53.9	51.1
% Needing Treatment in Past Year	7.3	7.2	7.3	7.1	7.3

Chart 1.10. Trends in Reported Alcohol Use, by Age Group, Alaska NSDUH, 2006-2007



Problem Statement: Illicit Drug Use

Illicit drug use, like alcohol use, is a major contributing factor for both intentional and unintentional injury, leading to death and permanent disability. While marijuana use was the most commonly reported drug of abuse, other drugs used include inhalants, hallucinogens, opioids, and misused prescription drugs.

Data Analysis

Data on illicit drug use was provided through the Youth Risk Behavior Survey (YRBS). Some rates were not available. Limiting factors include low number of observations, insufficient sample size or CI range that is too broad to obtain reliable results. Most national averages were available for most recent year comparison.

Illicit drug use, like alcohol use, is a major contributing factor for both intentional and unintentional injury, leading to death and permanent disability.

Youth Risk Behavior Survey (YRBS)

http://apps.nccd.cdc.gov/youthonline/

Definitions of illicit drug use:

- Illicit drugs include marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP], lysergic acid diethylamide [LSD], and Ecstasy [MDMA]), heroin, or prescription-type psychotherapeutics used non-medically, which include stimulants, sedatives, tranquilizers, and pain relievers.
- Current use was defined as any reported use one or more times in the 30 days preceding the survey.

Report of ever using of drugs was variable over the period of survey administration (1995-2009). In 2009 the prevalence of any lifetime use and current use of illicit drugs was higher among males than females (Tables 1.7 and 1.8; Chart 1.11). However, the prevalence of any cocaine use was higher among Grade 9 females reported than their male counterparts in 2009. Nearly 45% of all Alaska high school students participating in the 2009 survey reported having ever used marijuana (40% of males, 49% of females). One-fifth of Grade 9 students reported ever using marijuana, increasing to one-quarter for Grades 10 thru 12. The prevalence of inhalant abuse was higher than cocaine, heroin, methamphetamine, ecstasy, and steroids, excluding marijuana,. The prevalence of illicit drug use was higher among non-Alaska Native students, while any reported use of marijuana was more likely to be reported by Alaska Native students.

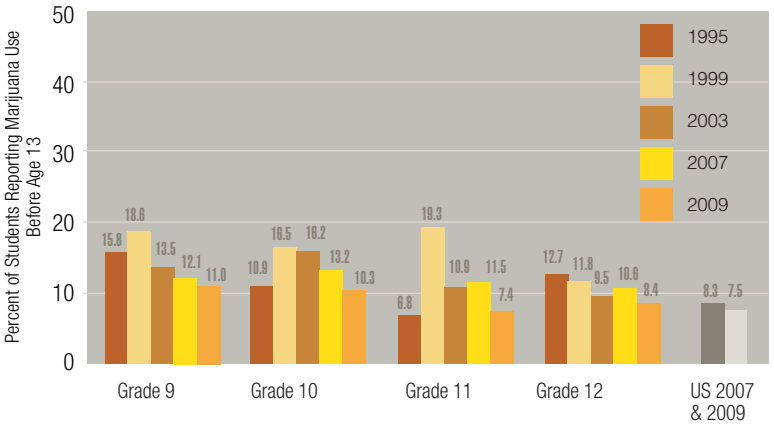
Table 1.7. Trends of Illicit Drug Use Among Youth, by Gender, Alaska YRBS

	1995	1999	2003	2007	2009	U.S. 2007	U.S. 2009
Female							
% Ever Used Cocaine	6.4	8.4	5.2	6.6	7.1	6.5	5.3
% Ever Used Inhalants	20.9	15.7	10.4	16.7	10.6	14.3	12.9
% Current Marijuana Use	24.9	27.4	21.2	18.9	19	16.9	17.9
% Marijuana Before 13	10.3	14.6	9.9	9.5	8.9	5.2	5.0
% Ever Used Heroin	--	2.7	0.7	0.9	2.3	1.6	1.7
% Ever Used Methamphetamines	--	10.5	4.8	4.3	2.8	4.1	3.3
% Ever Used Ecstasy	--	--	4.8	8	6.4	4.8	5.5
% Ever Used Injection Drugs	1.5	2.1	1.0	0.9	2.0	0.9	1.4
% Ever Used Steroids	3.3	3.6	2.6	2.8	--	2.7	
2.2Male							
% Ever Used Cocaine	9.7	8.5	7.7	8.7	7.4	7.8	7.3
% Ever Used Inhalants	23.4	13.1	9.9	12.3	8.7	12.4	10.6
% Current Marijuana Use	32.1	32.8	25.9	22.0	26	21.4	23.4
% Marijuana Before 13	13.2	18.7	15.8	14.1	10.3	11.4	9.7
% Ever Used Heroin	--	4.6	2.8	2.4	3.6	2.9	3.2
% Ever Used Methamphetamines	--	10.5	6.7	4.9	3.8	4.6	4.7
% Ever Used Ecstasy	--	--	7.4	7.1	7.3	6.7	7.6
% Ever Used Injection Drugs	2.3	4.4	2.2	3.3	2.1	3.3	2.7
% Ever Used Steroids	4.4	5.9	4.2	3.7	--	5.1	4.3

Table 1.8. Trends of Illicit Drug Use Among Youth, by Grade, Alaska YRBS

	1995	1999	2003	2007	2009	U.S. 2007	U.S. 2009
Grade 9							
% Ever Used Cocaine	6.6	5.4	4.0	6.0	5.1	4.8	4.5
% Ever Used Inhalants	25.2	15.5	7.3	13.6	10.1	15.0	13.0
% Current Marijuana Use	27.8	22.2	17.5	16.9	15.7	14.7	15.5
% Marijuana Before 13	15.8	18.6	13.5	12.1	11	11.2	9.1
% Ever Used Heroin	--	3.5	1.6	0.7	1.5	2.6	2.1
% Ever Used Methamphetamines	--	6.7	3.4	2.4	1.5	3.6	3.3
% Ever Used Ecstasy	--	--	3.4	5.7	3.7	4.6	4.9
% Ever Used Injection Drugs	3.6	2.9	1.4	2.2	1.6	2.2	2.0
% Ever Used Steroids	6.1	4.8	4.0	2.5	--	2.5	3.2
Grade 10							
% Ever Used Cocaine	7.1	9.8	5.8	9.9	5.8	7.2	5.6
% Ever Used Inhalants	20.7	15	11.5	17.9	10.8	14.6	12.5
% Current Marijuana Use	25.7	31.6	27.7	23.7	24.1	19.3	21.1
% Marijuana Before 13	10.9	16.5	16.2	13.2	10.3	9.1	8.3
% Ever Used Heroin	--	2	1.4	3	3	1.8	2.2
% Ever Used Methamphetamines	--	9.3	6.2	6.1	3.9	4.1	3.7
% Ever Used Ecstasy	--	--	6.5	8.5	4.3	5.3	5.2
% Ever Used Injection Drugs	1.0	1.4	0.8	3.0	2.0	3.0	2.0
% Ever Used Steroids	4.1	3.4	4.1	3.4	--	3.4	3.4
Grade 11							
% Ever Used Cocaine	8.5	10.3	9.9	6.7	7.3	7.7	7.7
% Ever Used Inhalants	21.5	14.4	12.3	13.4	8.1	12.5	11.5
% Current Marijuana Use	31.7	40.8	26.8	19.8	26.7	21.4	23.2
% Marijuana Before 13	6.8	19.3	10.9	11.5	7.4	7.1	6.5
% Ever Used Heroin	--	5.3	2	2.4	2.9	1.8	3.2
% Ever Used Methamphetamines	--	17	6.1	6.5	3.3	5.4	5.2
% Ever Used Ecstasy	--	--	7.1	8.4	9.4	5.6	8.7
% Ever Used Injection Drugs	1.3	4.9	2.2	1.4	2.3	1.4	2.5
% Ever Used Steroids	2.6	4.7	2.6	3.8	--	3.7	3.4
Grade 12							
% Ever Used Cocaine	11.4	10.0	7.7	8.2	10.3	9.5	7.9
% Ever Used Inhalants	20.7	12.2	11	12.9	9	10.2	9.1
% Current Marijuana Use	30.9	30.5	24.3	22.2	23.8	25.1	24.5
% Marijuana Before 13	12.7	11.8	9.5	10.6	8.4	6.2	5.2
% Ever Used Heroin	--	4.9	7.5	0.1	4.1	2.6	2.5
% Ever Used Methamphetamines	--	12	8.8	3.2	4.5	4.5	4.1
% Ever Used Ecstasy	--	--	8.6	7.6	9.6	7.6	8.0
% Ever Used Injection Drugs	1.6	5.2	2.7	1.4	1.9	1.4	1.8
% Ever Used Steroids	2.1	7.2	3.3	3.0	--	3.0	3.1

Chart 1.11. Trends in Youth Reporting Marijuana Use Before Age 13 Years, Alaska YRBS



As stated previously, alternative schools serving at-risk students were routinely excluded from traditional statewide YRBS surveys. In 2009, high school students in Alaska's alternative schools were conducted for the first time. Students from alternative schools reported significantly higher rates for all illicit drug use indicators when compared to their traditional school counterparts (Charts 1.12 -1.19).

Chart 1.12. Percent of Youth Reporting Lifetime Marijuana Use, Alaska YRBS

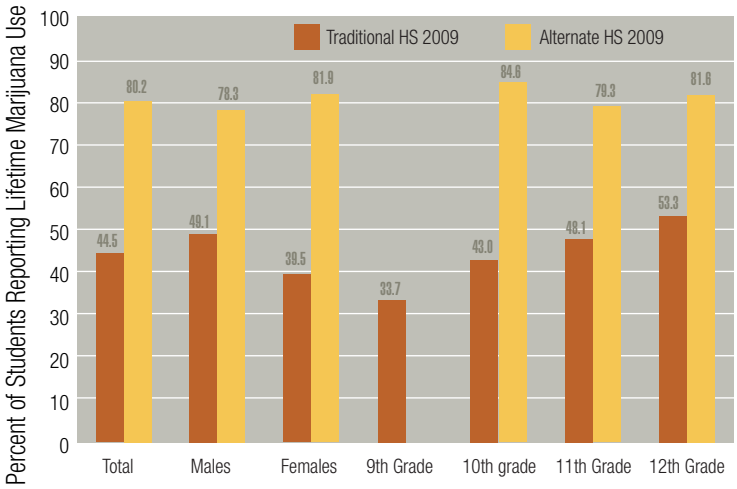


Chart 1.13. Percent of Youth Reporting Marijuana Use Before Age 13, Alaska YRBS

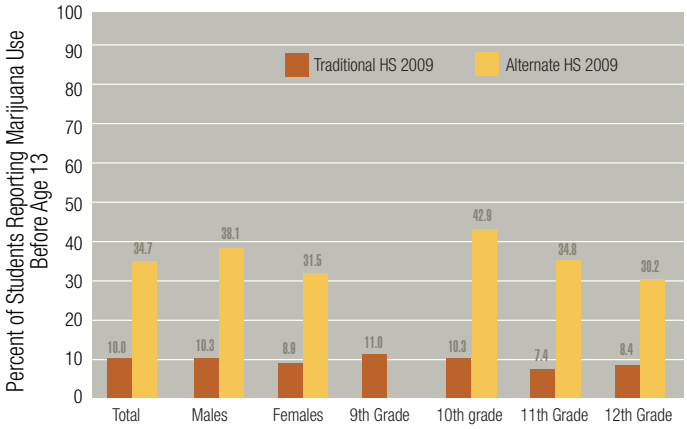


Chart 1.14. Percent of Youth Reporting Current Marijuana Use, Alaska YRBS

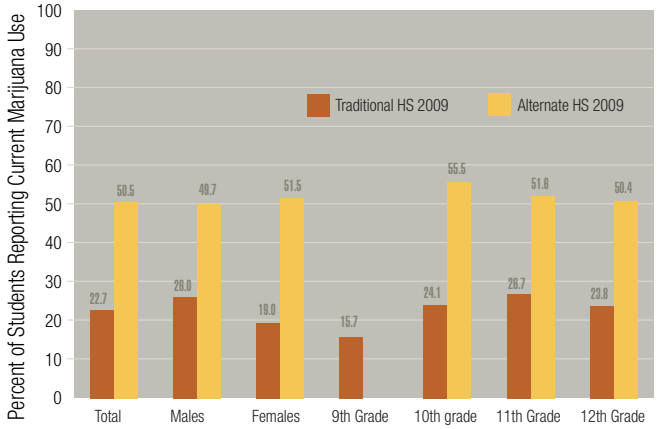


Chart 1.15. Percent of Youth Reporting Ever Used Heroin, Alaska YRBS

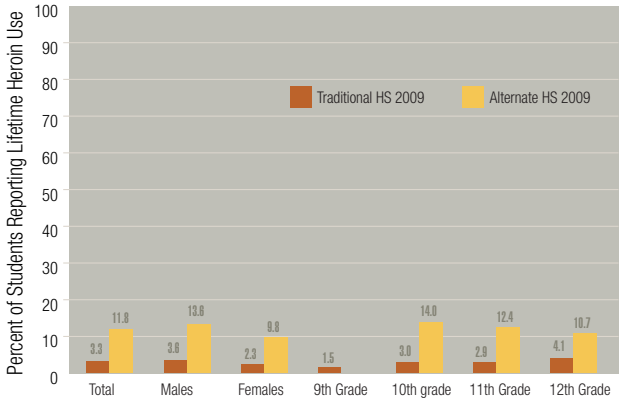


Chart 1.16. Percent of Youth Reporting Ever Used Methamphetamine, Alaska YRBS

Chart 1.17. Percent of Youth Reporting Ever Used Ecstasy, Alaska YRBS

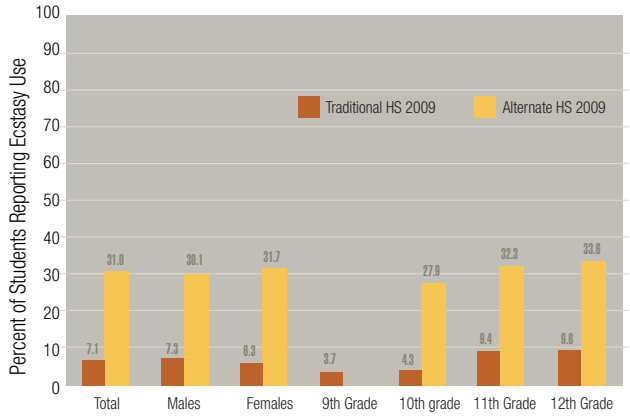


Chart 1.18. Percent of Youth Reporting Ever Used Cocaine, Alaska YRBS

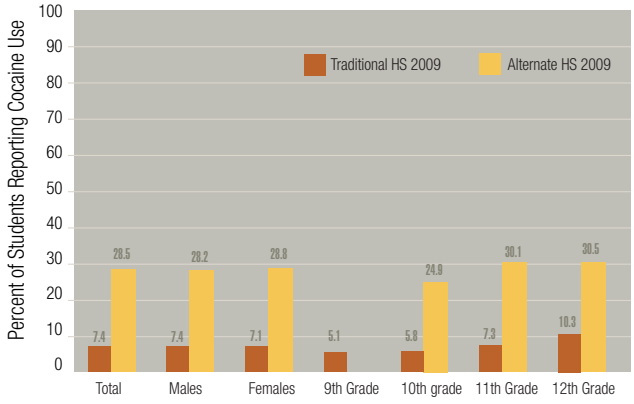
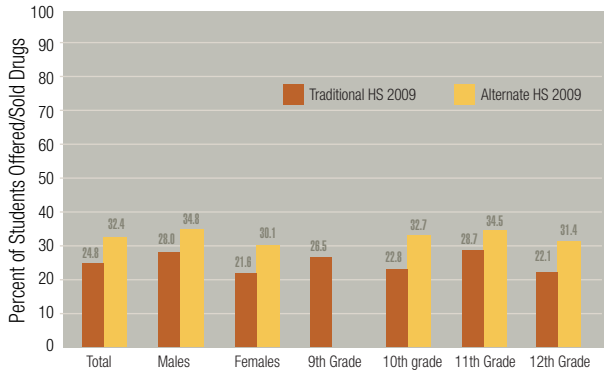


Chart 1.19. Percentage of students who were offered, sold, or given an illegal drug by someone on school property during the past 12 months, Alaska YRBS



National Survey on Drug Use and Health (NSDUH)

http://www.oas.samhsa.gov/statesList.cfm

Definitions of illicit drug use:

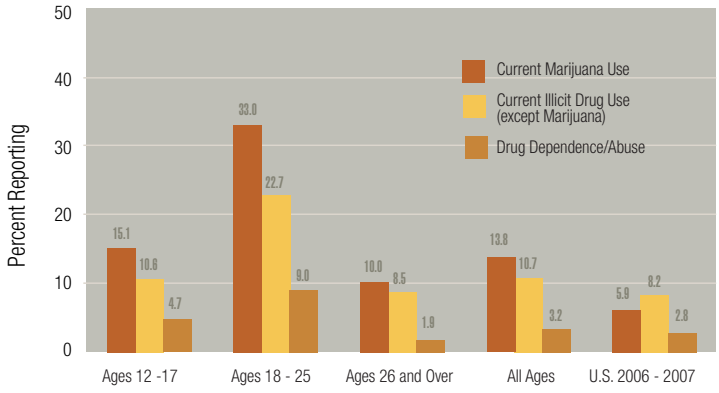
- Illicit drugs include marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP], lysergic acid diethylamide [LSD], and Ecstasy [MDMA]), heroin, or prescription-type psychotherapeutics used non-medically, which include stimulants, sedatives, tranquilizers, and pain relievers.
- Current use was defined as any reported use within the past 30 days.

Eight percent of adults in Alaska reported current use of marijuana. Nearly one-fifth of surveyed adults ages 18-25 years reported current marijuana use. The 2009 YRBS survey results indicated at least 25% of students in Grade 10, 11, and 12 reported current marijuana use, suggesting little to no difference in prevalence of marijuana use among students less than 18 years of age and young adults between the ages of 18 and 25 years (Table 1.9; Chart 1.20).

Table 1.9. Trends in Reported Illicit Drug Use, by Age Group, Alaska NSDUH

	2003-2004	2004-2005	2005-2006	2006-2007	U.S. 2006-2007
Ages 12 thru 17					
% Current Marijuana Use	12	9.7	8.3	8.0	6.7
% Current Other Illicit Use	5.5	5.7	5.1	4.6	4.8
% Drug Dependence/Abuse	6.2	5.5	5.4	4.7	4.5
% Needing Treatment in Past Year	4.8	4.8	4.5	4.1	4.1
Ages 18 thru 25					
% Current Marijuana Use	23	21.4	19.4	19.2	16.3
% Current Other Illicit Use	7.8	8.3	8.8	8.7	8.5
% Drug Dependence/Abuse	9	8.7	8.4	9.0	7.9
% Needing Treatment in Past Year	7.8	7.8	7.5	7.8	7.4
Ages 26 and over					
% Current Marijuana Use	7	8	6.9	6.0	4.0
% Current Other Illicit Use	3	3.2	3.2	2.8	2.9
% Drug Dependence/Abuse	1.8	2	2.1	1.9	1.7
% Needing Treatment in Past Year	2.4	2.4	2.0	1.7	1.4
All Ages					
% Current Marijuana Use	9.9	10.1	8.8	8.1	5.9
% Current Other Illicit Use	4	4.2	4.2	3.9	3.8
% Drug Dependence/Abuse	3.4	3.4	3.4	3.2	2.8
% Needing Treatment in Past Year	3.5	3.5	3.1	2.8	2.5

Chart 1.20. Reported Illicit Drug Use, Dependency or Abuse, by Age Groups, Alaska NSDUH, 2006-2007



Arrestee Drug Abuse Monitoring (ADAM) Program

In1997, the National Institute of Justice initiated the Drug Use Forecasting program to track trends of drug use among arrestees in 23 U.S. cities. This program was replaced with the Arrestee Drug Abuse Monitoring (ADAM) program and Anchorage became one of 12 sites added to the ADAM program in 1998. Initial results of this surveillance program indicated 54% of arrestees in Anchorage tested positive for illicit drugs. Cocaine and marijuana were identified most often and less than 5% of tests were positive for opiates, methamphetamine, and PCP.

From 1999 to 2001, the Justice Center at the University of Alaska has served as the Anchorage contractor for the nationwide ADAM program from 1999 to 2001. As reported in the Alaska Justice Forum (http://justice.uaa.alaska.edu/forum/19/4winter2003/a_adamdrug.html), 53% of male arrestees in Anchorage tested positive for drugs, predominantly marijuana. The highest rates for any positive drug test, especially marijuana, were found among 15-20 year olds, where as positive drug tests for cocaine were among more common 31-35 year olds (Table 1.10). Positive drug results were more prevalent among Black arrestees than other arrestees and least prevalent among American Indian/Alaska Natives arrestees (Table 1.11).

Table 1.10. Percentages of Male Arrestees Testing Positive for Drug Use, by Age, ADAM, 1999-2001

Age (years)	Marijuana			Cocaine			Any Drug[1]		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
15-20	60.8	68.8	68.2	13.7	14.1	12.1	66.6	71.9	69.7
21-25	55.8	47.6	53.8	18.9	9.8	16.5	57.9	57.3	62.6
26-30	42.0	34.8	40.6	27.3	24.2	18.8	55.6	47.0	50.0
31-35	27.8	28.8	30.8	35.1	22.5	26.9	56.7	46.2	48.1
36 & Up	27.0	24.9	19.4	26.2	26.9	22.0	53.6	50.7	46.1

Table 1.11. Percentages of Male Arrestees Testing Positive for Drug Use, by Race, ADAM, 1999-2001

Race	Marijuana			Cocaine			Any Drug1		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
White	39.4	41.6	36.1	27.0	22.0	20.2	59.5	56.5	54.1
American Indian Alaska Native	32.6	30.7	37.6	11.8	10.9	7.2	43.8	41.6	45.6
Black	35.9	31.3	36.5	45.7	40.6	38.1	68.5	65.6	61.9
Hispanic	47.8	16.7	37.5	13.0	16.7	37.5	52.2	41.7	54.2
Asian	38.5	36.8	52.9	30.8	21.1	17.6	53.9	52.6	64.7

Problem Statement: Tobacco Use

Tobacco is the single largest killer of Alaskans, having deadly impact due to direct use and exposure to second-hand smoke. On average, nearly 500 lives per year are lost due to tobacco use with an additional 120 lives lost due to second-hand (environmental) smoke. According to the latest report by the Alaska Department of Health and Social Services, tobacco-related deaths in Alaska exceed the combined total of fatal intentional injuries (homicide and suicide) and fatal transportation injuries (motor vehicle, watercraft and aircraft).

Tobacco is the single largest killer of Alaskans, having deadly impact due to direct use and exposure to second-hand smoke.

Data Analysis

Data on tobacco sales and consumption was provided through the Tobacco Tax Program from the Alaska Department of Revenue. Data on adult and youth smoking habits was largely provided by the BRFSS and the YRBS, respectively. Some rates were not available. Limiting factors include low number of observations, insufficient sample size or CI range that is too broad to obtain reliable results. National averages were available for most recent year comparison. In accordance with tobacco regulations, states are required to provide detailed information on progress made in enforcing youth tobacco access laws and to ensure future compliance with the federal SYNAR Amendment prohibiting the sales and distribution of tobacco products to minors.

Tobacco and Smoking Surveillance

http://www.hss.state.ak.us/dph/chronic/tobacco/alaska_tobacco_facts.pdf

Between 2001 and 2008, cigarette sales diminished by 28%. This trend in cigarette sales (Table 1.12) indicated significant progress regarding tobacco consumption and health education. A dramatic drop in cigarette sales was noted in 1998 that corresponded to an increased sales tax on tobacco products.[1]

Table 1.12 Trend in Annual Cigarette Sales Per Capita, Alaska

	2001	2002	2003	2004	2005	2006	2007	2008	U.S. 2007*
Cigarette Packs Sold Per Adult	94.0	91.6	90.1	92.0	88.0	80.4	78.0	67.4	78.4

* US minus Alaska

In accordance with tobacco regulation, each state must provide a detailed report on the progress to enforce tobacco laws prohibiting sales to youth. The purpose of the state reports were to provide both Congress and the states with a better understanding of progress and to assist with identifying state-based needs for program enhancement, particularly enforcing retailer compliance. In 2003, Alaska achieved "20% or below" compliance established by SYNAR. In 2008 retailer violation rate is 7.0% (weighted rate = 9.0%).

Youth Risk Behavior Survey (YRBS)

http://apps.nccd.cdc.gov/youthonline/

Definitions of tobacco use:

- Current cigarette/cigar use was defined as reported smoking on at least one day in the 30 days preceding the survey.
- Daily cigarette use was defined as reported smoking at least one cigarette every day for 30 days.

- Frequent cigarette use was defined as reported smoking on 20 or more days in the 30 days preceding the survey.
- Smokeless tobacco use was defined as reported use of chewing tobacco, snuff, or dip on at least one day in the 30 days preceding the survey.
- Iq'mik -a substance made of tobacco and the ash of a fungus (Phellinus igniarius) that grows on birch trees. The practice is not new and is prevalent in several regions, particularly the Yukon-Kuskokwim Delta.

In 2009 cigarette use decreased significantly only among Alaska high school youth that were heavy smokers. Nearly half of the survey participants reported ever trying cigarettes and 16% reported current use in the past month. Prevalence was higher among female students for current and daily cigarette use and higher among male students for early cigarette use before 13 years of age (Table 1.13; Chart 1.21, 1.22). Alaska Native students continued to report cigarette use as much as 6 times the rate of Non-Native youth.

Withstanding prominent smoking cessation campaigns, 58% of students who reported current cigarette use did not try to quit smoking in the past year. Nearly 14% of students reported use of smokeless tobacco (chewing tobacco, snuff, or dip) during the past month where prevalence was 2.5 times higher among male students. Not available for this survey was information pertaining to the use of "iq'mik".

Table 1.13. Trends in Cigarette Use Among Youth, by Gender, Alaska YRBS

	1995	1999	2003	2007	2009	U.S. 2007	U.S. 2009
Female							
% Ever Tried Cigarettes	72.8	71.1	55.7	54.0	48.1	48.8	45.1
% Cigarette Before 13	28.1	31.9	18.2	14.3	11.6	11.9	9.4
% Current Cigarette Use	36.5	35.8	20.2	19.7	17.1	18.7	19.1
% Daily Cigarette Use	--	29.2	14.4	15.5	11.2	11.8	10.6
% Frequent Cigarette Use	20.5	18.9	--	--	--	7.4	6.4
% Cigarette Use on School Property	17.9	13.5	9.0	8.2	4.3	--	4.0
% Current Cigar Use	--	6.9	3.5	6.1	6.2	7.6	8.8
% Smokeless Tobacco Use	6.7	9.1	6.2	7.3	7.4	2.3	2.2
% Smokeless Tobacco Use on School Property	3.1	4.9	4.4	2.8	3.5	--	1.1
Among Current Smokers, % Who Did Not Try To Quit	55.1	61.6	70.7	59.0	54.0	55.1	45.8
Male							
% Ever Tried Cigarettes	71.4	71.6	56.1	51.1	46.8	51.8	46.8
% Cigarette Before 13	33	33	20.9	17.4	13.6	16.4	11.8
% Current Cigarette Use	36.4	31.1	18.4	15.9	14.2	21.3	19.8
% Daily Cigarette Use	--	27.1	13.0	12.0	9.4	13.0	11.7
% Frequent Cigarette Use	21.4	16.6	--	--	--	8.7	8.0
% Cigarette Use on School Property	19.9	11.9	6.7	6.8	4.1	--	6.2
% Current Cigar Use	--	15.1	11.7	13.6	13.7	19.4	18.6
% Smokeless Tobacco Use	23.5	20.9	15.6	13.5	19.3	13.4	15.0
% Smokeless Tobacco Use on School Property	15.2	14.1	10.0	8.9	9.6	--	9.4
Among Current Smokers, % Who Did Not Try To Quit	64.3	66.0	68.2	64.6	63.4	45.1	52.0

Chart 1.21. Trend in Current Cigarette Use Among Youth, by Gender, Alaska YRBS

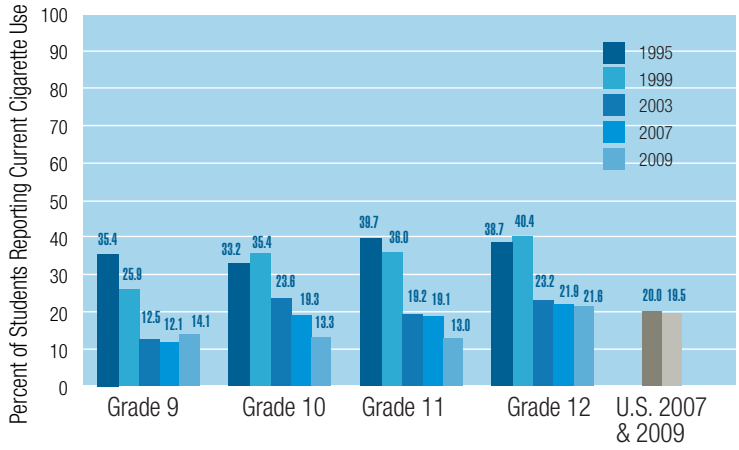
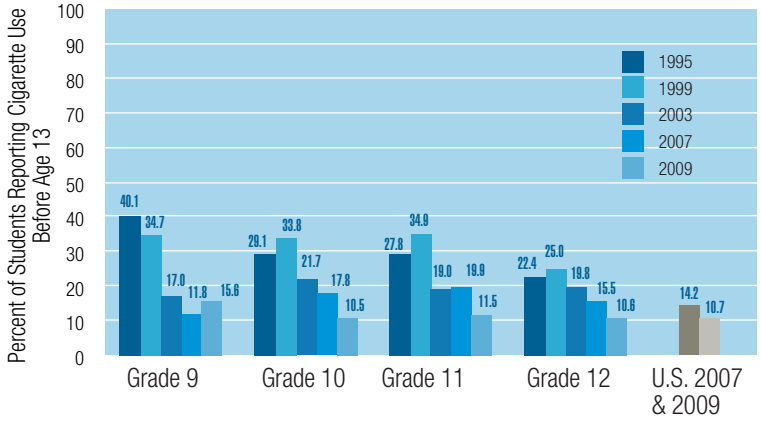


Chart 1.22. Trends in Youth Reporting Current Cigarette Before Age 13, by Grade, Alaska YRBS



As stated previously, alternative schools serving at-risk students have been routinely excluded from traditional statewide YRBS surveys. In 2009, surveys of high school students in Alaska's alternative schools were conducted for the first time. Students from alternative schools reported significantly higher rates for all tobacco use indicators when compared to their traditional school counterparts (Charts 1.23-1.25).

Chart 1.23. Percentages of Students Who Smoked a Whole Cigarette for the First Time Before Age 13

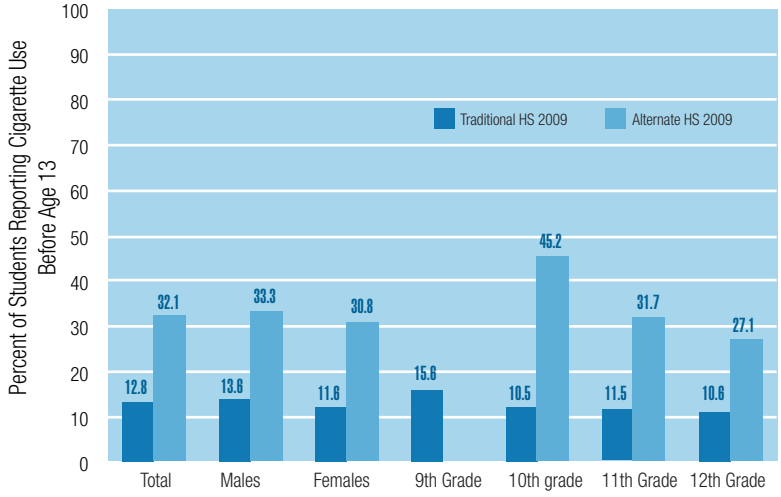


Chart 1.24. Percentage of Students Who Smoked Cigarettes on 20 or More of the Past 30 Days

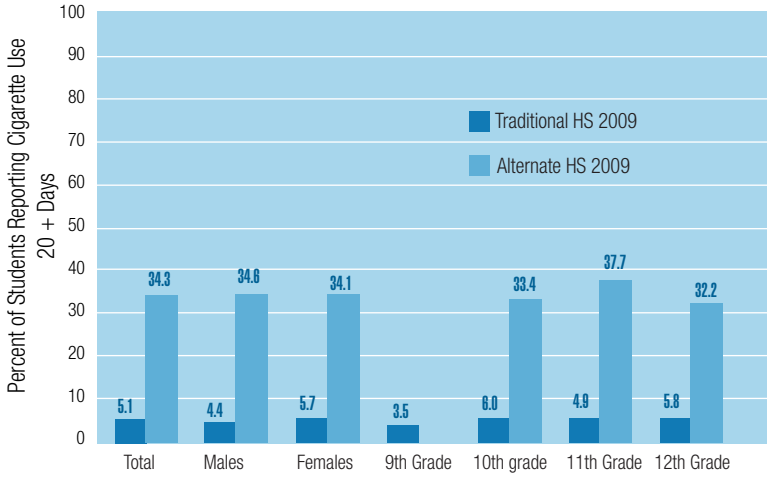
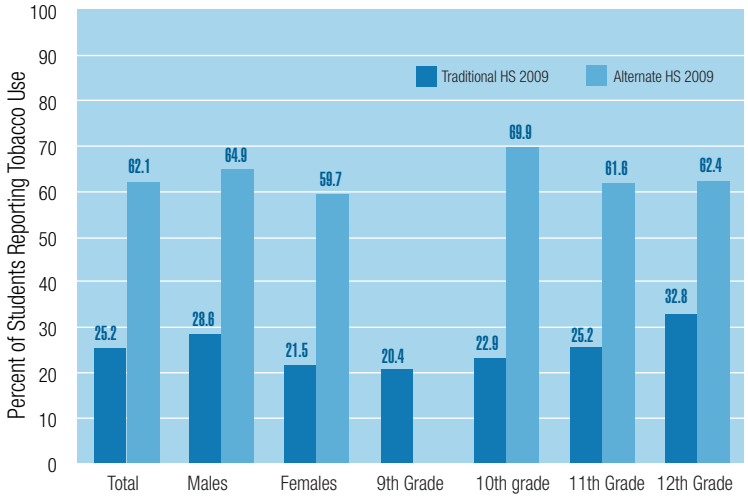


Chart 1.25. Percentage of Students Who Used Chewing Tobacco, Snuff, or Dip on One or More of the Past 30 Days



Behavioral Risk Factor Surveillance Survey (BRFSS)

http://apps.nccd.cdc.gov/brfss/ vaa

Definitions of cigarette use:

- Current cigarette use was defined as any reported use within the past 30 days.
- Daily cigarette use was defined as smoking at least one cigarette per day within the past 30 days.

In 2009, over one-fifth of adults in Alaska reported cigarette use, however current cigarette use continued to gradually decline from 25% in 2000 to 21%. Prevalence of current cigarette use was higher among males and among adults 21-29 years (Table 1.14 and 1.15). In 2009, 27.7% of current smokers had incomes below the federal poverty level. Of adults using smokeless tobacco, 11.6% are using "iq'mik".

Table 1.14. Trends in Cigarette Use Among Adults, by Gender, Alaska BRFSS

	2004	2005	2006	2007	2008	2009	U.S 2009
Female							
% Current Cigarette Use	21.13	20.85	22.37	18.69	19.70	17.81	16.6
% Daily Cigarette Use	14.32	14.82	15.10	13.63	--	10.78	11.9
Male							
% Current Cigarette Use	26.96	28.28	24.95	23.95	23.77	19.86	19.6
% Daily Cigarette Use	19.20	21.87	16.04	16.73	--	12.92	13.8

4 Http://www.tobacco.org news/79236.html

Table 1.15. Trends in Cigarette Use Among Adults, by Age Group, Alaska BRFSS

	2004	2005	2006	2007	2008	2009	U.S 2009
Ages 18 thru 24							
% Current Cigarette Use	23.4	32.2	--	--	--	23.2	22.7
% Daily Cigarette Use	15.3	21.6	22.2	--	--	15.5	14.1
Ages 25 thru 34							
% Current Cigarette Use	30.6	27.8	30.1	26.6	26.5	25.1	23.8
% Daily Cigarette Use	19.7	20.8	18.4	16.6	18.2	17.9	16.5
Ages 35 thru 34							
% Current Cigarette Use	29.4	27.7	20.7	22.4	22.1	16.9	18.1
% Daily Cigarette Use	19.3	20.8	14.2	14.8	14.7	11.8	13.1
Ages 45 thru 54							
% Current Cigarette Use	24.5	25.1	23.7	25.3	20.1	27.7	20.5
% Daily Cigarette Use	16.9	19.6	17.1	20.4	14.4	19.7	15.2
Ages 55 thru 64							
% Current Cigarette Use	19.2	16.8	16.3	16.9	17.4	15.3	16.0
% Daily Cigarette Use	12.6	14.6	11.9	11.2	13.6	11.4	11.8
Ages 65 and over							
% Current Cigarette Use	12.5	13.8	16.5	11.5	9.7	8.6	8.1
% Daily Cigarette Use	7.4	10.1	11.8	8.4	7.7	7.2	5.8

The prevalence of cigarette use among Alaska Natives was higher than all other raciale groups and national averages in 2009. The percentage of Alaska Native adults who smoked was nearly twice as high as White adults who smoke (Chart 1.26; Table 1.16).

Chart 1.26. Trends in Current Cigarette Use Among Adults, by Race and Ethnicity, Alaska BRFSS

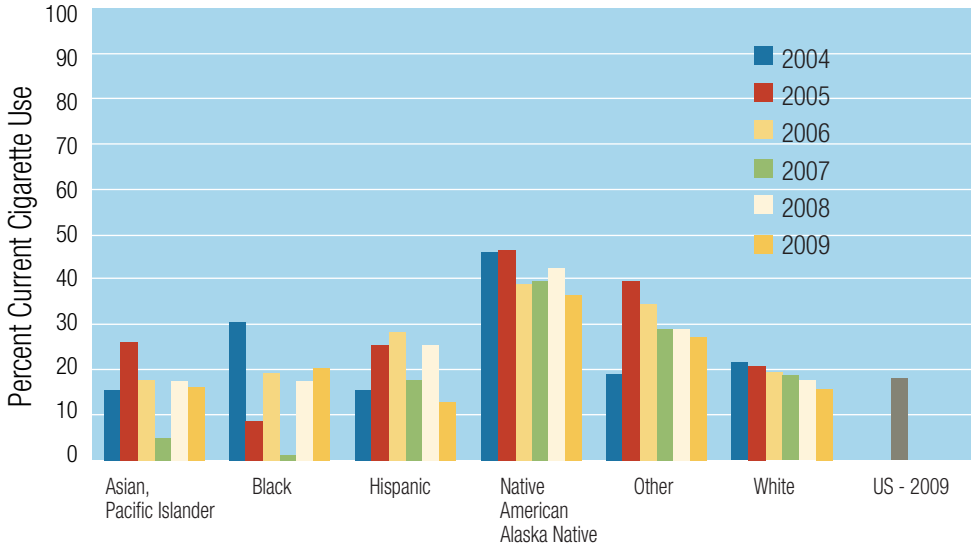


Table 1.16. Trends in Cigarette Use Among Adults, by Race and Ethnicity, Alaska BRFSS

	2005	2006	2007	2008	2009	U.S. 2009
Asian, Pacific Islander						
% Current Cigarette Use	26.1	17.8	5.1	17.4	16.2	--
% Daily Cigarette Use	21.1	17.0	4.4	--	13.6	--
Black						
% Current Cigarette Use	8.9	19.3	1.4	17.8	20.4	20.4
% Daily Cigarette Use	6.2	4.6	--	--	19.0	13.4
Hispanic						
% Current Cigarette Use	25.5	28.8	17.7	25.7	12.8	15.5
% Daily Cigarette Use	13.1	18.0	13.0	--	9.1	8.6
Native American, Alaska Native						
% Current Cigarette Use	46.2	39.1	39.6	42.5	36.7	--
% Daily Cigarette Use	30.6	26.4	24.5	--	24.6	--
Other						
% Current Cigarette Use	39.8	34.9	29.3	29.4	27.4	17.2
% Daily Cigarette Use	38.9	20.2	19.0	--	17.8	10.9
White						
% Current Cigarette Use	20.7	19.6	18.5	17.7	15.7	17.3
% Daily Cigarette Use	16.1	13.6	14.0	--	9.4	12.6

National Survey on Drug Use and Health (NSDUH)

http://www.oas.samhsa.gov/statesList.cfm

Definitions of tobacco product and cigarette use:

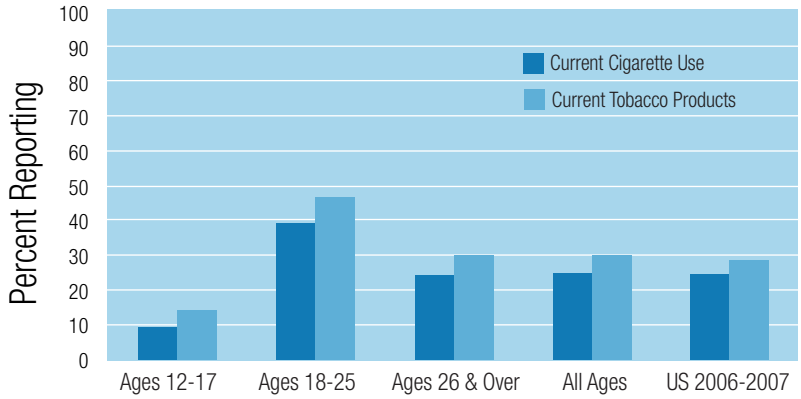
- Tobacco product includes cigarettes, chewing tobacco, snuff, cigars, and pipe tobacco.
- Current use was defined as any reported use within the past 30 days.

One-quarter of adults in Alaska currently use cigarettes. Forty-three percent of surveyed adults ages 18-25 years reported current use of tobacco products. The 2009 YRBS survey results indicated at least 16% of students reported current cigarette use, suggesting a greater prevalence of cigarette use among students less than 18 years of age (Table 1.17; Chart 1.27).

Table 1.17. Trends in Reported Cigarette and Tobacco Products Use, by Age Group, Alaska NSDUH

	2003-2004	2004-2005	2005-2006	2006-2007	U.S. 2006-2007
Ages 12 thru 17					
% Current Cigarette Use	13.2	10.8	10.5	9.7	10.1
% Current Tobacco Products Use	15.9	15.1	15.1	14.0	12.7
Ages 18 thru 25					
% Current Cigarette Use	42.7	41.3	39.8	39.4	37.3
% Current Tobacco Products Use	47.8	47.6	47.5	46.5	42.9
Ages 26 and over					
% Current Cigarette Use	24.6	23.8	23.7	24.2	24.4
% Current Tobacco Products Use	28.7	28.9	29.0	29.7	28.9
All Ages					
% Current Cigarette Use	25.5	24.6	24.3	24.6	24.6
% Current Tobacco Products Use	29.6	29.7	29.9	30.1	29.1

Chart 1.23. Reported Cigarette and Tobacco Products Use, by Age Group, Alaska NSDUH, 2006-2007



Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS was developed by CDC as part of its initiative to reduce infant mortality and low birth weight. The survey collects state-specific, population-based data on maternal attitudes and experiences before, during, and after pregnancy.

Definitions of Tobacco use:

- Smoking Before Pregnancy was defined as whether the mother smoked during the 3 months before getting pregnant
- Smoking During Pregnancy was defined as whether the mother smoked during the last 3 months of pregnancy

Survey findings from 2002 through 2007 indicated an overall decline in smoking during before and during pregnancy (Table 1.18). Prevalence for smoking was higher for women 24 years and younger.

From 1996 to 2003, the PRAMS survey asked if women used smokeless tobacco. Starting in 2004, the survey included use of "iq'mik or blackbull." Findings from these later surveys indicated that Alaska Natives account for nearly 90% of the prenatal iq'mik or smokeless tobacco users.[5]

Table 1.18. Trends in Maternal Smoking, Alaska, (PRAMS), 2002-2007

	2002	2003	2004	20005	2006	2007
Age < 20						
% Smoking Before Pregnancy	50.9	44.7	45.8	40.8	41.1	38.6
% Smoking During Pregnancy	26	24.7	25.1	27.1	20.4	21.7
Age 20-24						
% Smoking Before Pregnancy	43.1	43.1	39	42.2	37.1	38.8
% Smoking During Pregnancy	21	21.3	18.6	21.7	16.3	21.8
Age 25-34						
% Smoking Before Pregnancy	26	22.3	26.3	25.9	27.8	21.2
% Smoking During Pregnancy	16.7	13.3	16.1	13.7	14.8	11.4
Age 35 +						
% Smoking Before Pregnancy	15.1	19.5	17.1	12.9	10.6	13.5
% Smoking During Pregnancy	7.8	11	13.2	6.9	6.2	9.4

5 Http://www.epi.hss.state.ak.us/bulletins/docs/b2007_28.pdf

SECTION 2

CONSEQUENCE

Problem Statement: Mortality

This section begins with a brief profile of mortality in Alaska. Data was primarily gathered from the Alaska Bureau of Vital Statistics. The most recent five-year period for which data is available was used. Whenever possible, age adjusted death rates were provided to control for the effects of differences in population age distribution.

Substance abuse is was also a major contributing factor for non-fatal recreational, home, and occupational injuries.

Data Analysis

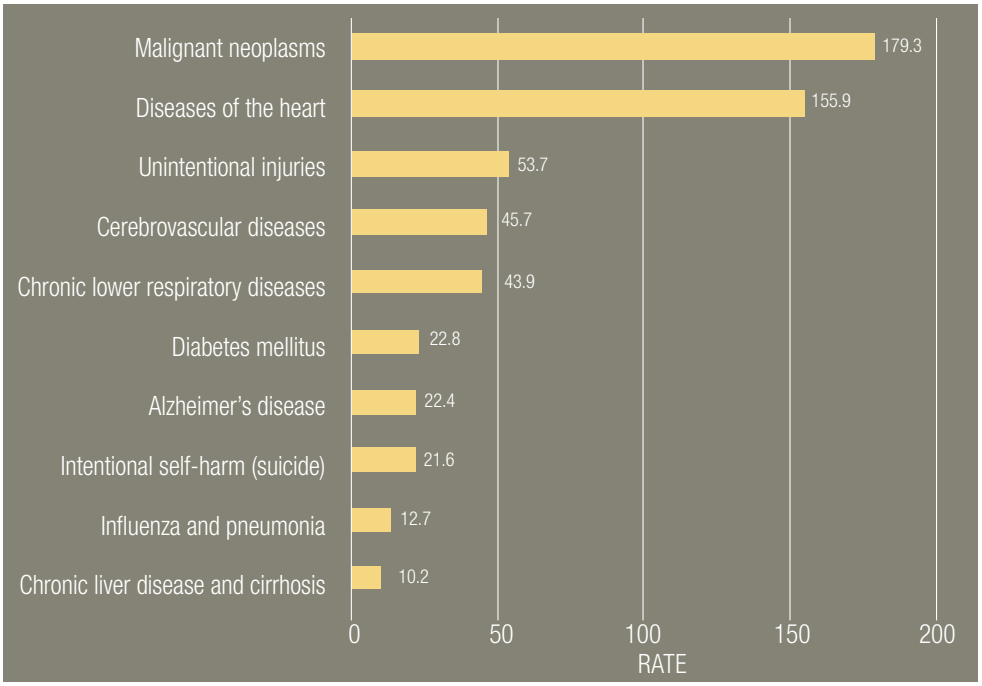
Mortality data was provided by the Alaska Bureau of Vital Statistics. All rates were calculated per 100,000 persons.

Alaska Bureau of Vital Statistics

Http://www.hss.state.ak.us/dph/bvs/data/default.htm

Of the ten leading causes of death in Alaska, all except Alzheimer's disease can be associated with substance abuse as a potential contributing cause of death (Chart 2.1). Chronic liver disease and cirrhosis can be strongly associated with alcohol abuse. Chronic lower respiratory disease (chronic obstructive pulmonary disease-COPD) and many cancers also have strong association with tobacco use. From 2005-2009, unintentional injury was the third leading cause of death in Alaska and shown to have a strong association with alcohol and drug use. Substance abuse was also a major contributing factor for non-fatal recreational, home, and occupational injuries.

Chart 2.1. Ten Leading Causes of Mortality in Alaska, 2005-2009



Rates are per 100,000 population are age-adjusted to the year 2000 US standard population.

Source: Alaska Bureau of Vital Statistics, February 2011.

As expected, the number and rate of death increased with age, and was generalizable across all genders and race aged 25 years and older. Prevalence was higher among males and Alaska Natives. Rates of death were not homogenous across boroughs and census areas where greater than 55% (15/27) of boroughs/census areas were higher than the statewide rate. Leading causes (see Appendix D - ICD-10 Codes for Cause of Death) of premature death, including chronic liver disease, cirrhosis, homicide, suicide, and unintentional injury, were strongly associated with substance abuse (Table 2.1 – 2.5; Chart 2.2).

Table 2.1. All Cause of Death by Age, Gender, and Race, Alaska, 2005-2009

	Number of Deaths by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	14	2	7	20	23	38	174	278
Black	13	6	8	17	24	27	83	178
AI/NA	106	68	92	158	236	251	934	1,845
White	101	61	86	233	570	664	3,410	5,125
All Races[1]	236	138	194	428	860	985	4,623	7,464
Male								
Asian/PI	28	19	14	17	38	54	144	314
Black	14	13	17	25	40	59	101	269
AI/NA	129	184	155	198	323	290	880	2,159
White	134	238	245	410	979	1,314	3,485	6,805
All Races[1]	306	459	434	655	1,389	1,731	4,648	9,622
Total								
Asian/PI	42	21	21	37	61	92	318	593
Black	27	19	25	42	64	86	184	447
AI/NA	235	252	247	356	559	541	1,814	4,006
White	235	299	331	643	1,549	1,978	6,895	11,932
All Races[1]	542	597	628	1,083	2,249	2,716	9,271	17,092

1 "All Races" includes decedents whose race is "Unknown" or 2 or more races.
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

Table 2.2. All Cause of Death by Age, Gender, and Race, Alaska, 2005-2009

	Rate[1] by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	52.2*	**	59.3*	154.1	152.0	351.7	1,944.8	353.0
Black	58.1*	48.1*	64.1*	198.7*	284.9	511.2	2,507.6	438.3
AI/NA	120.7	122.3	246.0	413.0	641.8	1,097.3	4,623.5	957.8
White	39.2	37.3	55.3	128.5	282.6	512.5	3,753.5	637.5
All Races[2]	59.8	55.9	89.3	177.5	328.2	584.5	3,749.2	664.2
Male								
Asian/PI	107.7	120.2*	124.5*	133.9*	309.8	668.8	2,347.2	506.9
Black	72.0*	93.1*	101.8*	241.1	510.9	1,213.0	4,112.4	818.2
AI/NA	135.1	302.2	409.6	502.8	898.0	1,358.0	5,245.3	1,202.6
White	48.2	144.0	148.9	217.8	446.4	862.8	3,932.8	826.6
All Races[2]	73.0	179.4	188.4	261.3	504.4	927.7	4,077.8	872.1
Total								
Asian/PI	79.5	67.7	91.1	144.1	222.6	487.3	2,108.5	420.1
Black	64.6	71.8*	85.7	221.9	393.8	847.6	3,191.1	605.3
AI/NA	128.2	216.3	328.3	458.6	768.5	1,223.2	4,905.6	1,077.0
White	43.8	90.9	103.4	174.0	368.0	701.8	3,842.0	733.1
All Races[2]	66.6	118.7	140.3	220.2	418.5	764.9	3,907.1	767.2

1 Rates are age-adjusted to the year 2000 US standard population.
2 "All Races" includes decedents whose race is "Unknown" or "2 or more races"
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

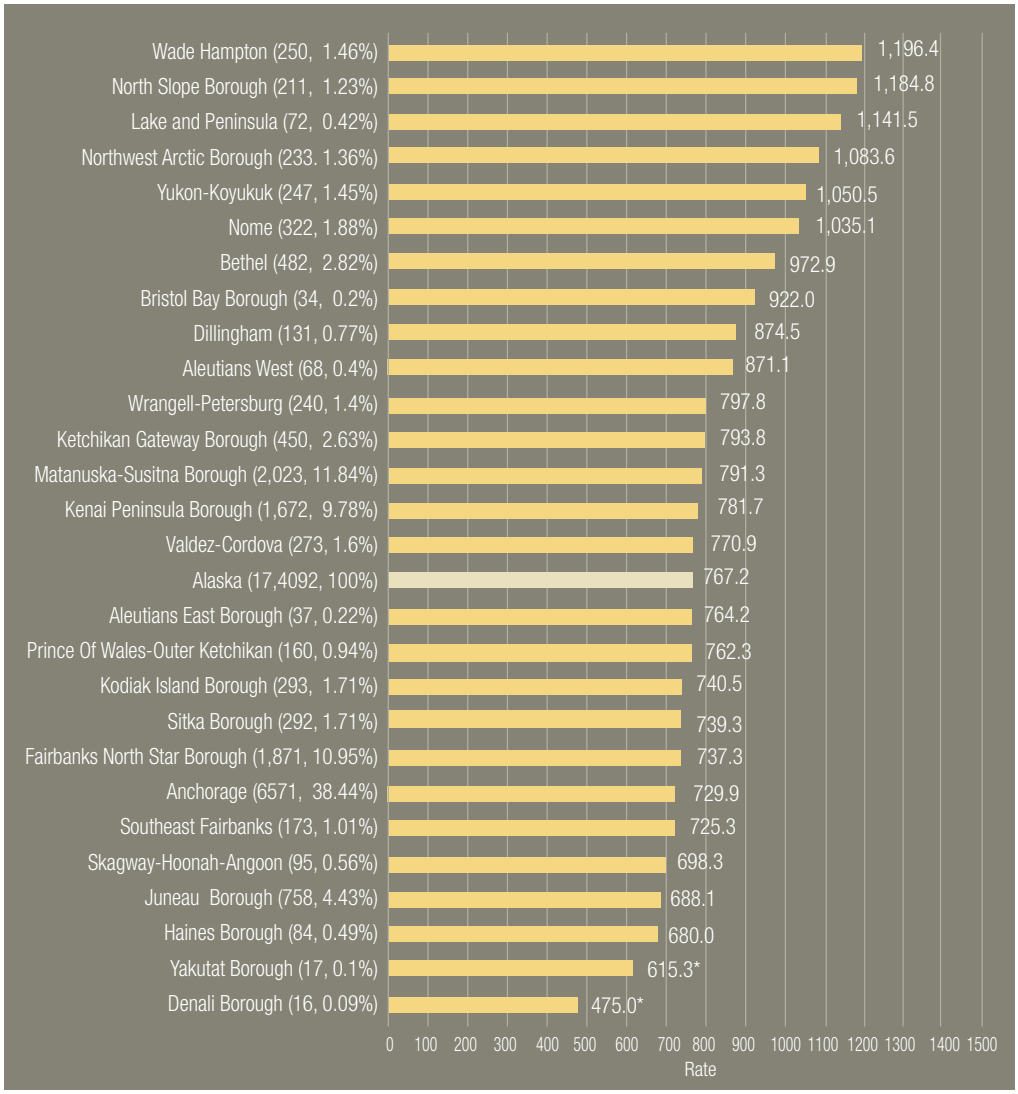
Table 2.3. All Cause of Death by Gender and Borough/Census Area, Alaska, 2005-2009

	Total Deaths	Age Adjusted Death Rate[1]	Male Deaths	Male Age Adjusted Death Rate[1]	Female Deaths	Female Age Adjusted Death Rate[1]
Aleutians East Borough	37	764.2	25	875.7	12	574.1*
Aleutians West	68	871.1	44	1,263.3	24	722.2
Anchorage	6,571	729.9	3,536	795.5	3,033	662.8
Bethel	482	972.9	298	1,185.8	184	765.5
Bristol Bay Borough	34	922.0	22	1,358.9	12	624.6*
Denali Borough	16	475.0*	14	540.7*	2	**
Dillingham	131	874.5	78	1,016.0	52	703.3
Fairbanks North Star Borough	1,871	737.3	1,052	859.9	819	637.1
Haines Borough	84	680.7	47	779.7	37	597.7
Juneau Borough	758	688.1	375	756.0	382	632.9
Kenai Peninsula Borough	1,672	781.7	935	888.7	737	674.1
Ketchikan Gateway Borough	450	793.8	248	940.0	202	670.2
Kodiak Island Borough	293	740.5	186	855.5	107	614
Lake And Peninsula	72	1,141.5	48	1,696.4	24	788.6
Matanuska-Susitna Borough	2,023	791.3	1,187	942.7	836	654.1
Nome	322	1,035.1	203	1,292.0	119	773.5
North Slope Borough	211	1,184.8	121	1,409.4	90	978.3
Northwest Arctic Borough	233	1,083.6	143	1,345.7	90	869.8
Prince Of Wales-Outer Ketchikan	160	762.3	102	845.7	58	642.7
Sitka Borough	292	739.3	160	893.2	132	600
Skagway-Hoonah-Angoon	95	698.3	52	694.3	43	697.7
Southeast Fairbanks	173	725.3	107	889.8	66	573.6
Valdez-Cordova	273	768.6	167	931.2	106	616.2
Wade Hampton	250	1,196.4	149	1,419.5	100	965.7
Wrangell-Petersburg	240	797.8	140	966.1	99	618.2
Yakutat Borough	17	615.3*	10	986.7*	7	485.2*
Yukon-Koyukuk	247	1,050.5	160	1,254.5	87	812.2
ALASKA Total	17,092	767.2	9,622	872.1	7,464	664.2

1 Rates are age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Chart 2.2. All Cause of Death and Rates[1] by Borough/Census Area, Alaska, 2005-2009

Borough/Census Area (# of deaths; % of statewide total)



1 Rates are age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Cause of Death:	ICD-10 Codes
Unintentional Injury	V01-X59, Y85-Y86
Suicide	U03, X60-X84, Y870
Homicide	U01-U02, X85-Y09, Y871
Chronic Liver Disease & Cirrhosis	K70, K73-K74
Alcohol-Induced	E244, F10, G312, G621, G721, I426, K292, K70, K860, R780, X45, X65, Y15
Drug-Induced	D521, D590, D592, D611, D642, E064, E160, E231, E242, E273, E661, F110-F115, F117-F119, F120-F125, F127-F129, F130-F135, F137-F139, F140-F145, F147-F149, F 150-F155, F157-F159, F160-F165, F167-F169, F170-F175, F177-F179, F180-F185, F187-F189, F190-F195, F197-F199, G211, G240, G251, G254, G256, G444, G620, G720, I952, J702-J704, L105, L270-L271, M102, M320, M804, M814, M835, M871, R781, R782-R785, X40-X44, X60-X64, X85, Y10-Y14

Table 2.4. Select Causes of Death Often Related to Substance Abuse, Alaska, 2005-2009

Health Indicators for Census Areas/Boroughs	Number of Deaths						
	Total Deaths	Alcohol Induced	Drug Induced	Unintentional Injury	Suicide	Homicide	Chronic Liver Disease & Cirrhosis
Aleutians East Borough	37	2	0	3	0	0	1
Aleutians West	68	3	1	11	6	1	4
Anchorage	6,571	286	242	534	218	87	143
Bethel	482	16	7	71	43	9	4
Bristol Bay Borough	34	2	1	8	3	0	2
Denali Borough	16	0	0	3	1	0	0
Dillingham	131	8	1	23	6	1	2
Fairbanks North Star Borough	1,871	69	62	181	82	23	35
Haines Borough	84	4	3	4	2	0	3
Juneau Borough	758	38	16	63	30	2	18
Kenai Peninsula Borough	1,672	48	49	166	48	8	33
Ketchikan Gateway Borough	450	17	6	22	14	1	8
Kodiak Island Borough	293	17	5	21	15	1	6
Lake And Peninsula	72	9	1	22	0	2	1
Matanuska-Susitna Borough	2,023	43	72	193	90	17	19
Nome	322	17	6	54	31	2	3
North Slope Borough	211	9	1	24	17	2	0
Northwest Arctic Borough	233	15	1	47	28	1	1
Prince Of Wales-Outer Ketchikan	160	6	2	12	5	0	2
Sitka Borough	292	12	7	25	11	4	8
Skagway-Hoonah-Angoon	95	8	1	15	5	0	3
Southeast Fairbanks	173	9	2	14	2	1	5
Valdez-Cordova	273	16	7	36	14	3	5
Wade Hampton	250	9	2	40	26	7	1
Wrangell-Petersburg	240	9	7	19	3	3	5
Yakutat Borough	17	1	0	1	1	1	0
Yukon-Koyukuk	247	26	5	33	14	6	5
ALASKA Total	17,092	700	507	1,648	715	184	317

Source: Alaska Bureau of Vital Statistics, February 2011.

Cause of Death:	ICD-10 Codes
Unintentional Injury	V01-X59, Y85-Y86
Suicide	U03, X60-X84, Y870
Homicide	U01-U02, X85-Y09, Y871
Chronic Liver Disease & Cirrhosis	K70, K73-K74
Alcohol-Induced	E244, F10, G312, G621, G721, I426, K292, K70, K860, R780, X45, X65, Y15
Drug-Induced	D521, D590, D592, D611, D642, E064, E160, E231, E242, E273, E661, EF110-F115, F117-F119, F120-F125, F127-F129, F130-F135, F137-F139, F140-F145, F147-F149, F150-F155, F157-F159, F160-F165, F167-F169, F170-F175, F177-F179, F180-F185, F187-F189, F190-F195, F197-F199, G211, G240, G251, G254, G256, G444, G620, G720, I952, J702-J704, L105, L270-L271, M102, M320, M804, M814, M835, M871, R781, R782-R785, X40-X44, X60-X64, X85, Y10-Y14

Table 2.5. Select Causes of Death Often Related to Substance Abuse, Alaska, 2005-2009

Health Indicators for Census Areas/Boroughs	Age-adjusted Death Rates[1]						
	Total Deaths	Alcohol Induced	Drug Induced	Unintentional Injury	Suicide	Homicide	Chronic Liver Disease & Cirrhosis
Aleutians East Borough	764.2	**	0.0	**	0.0	0.0	**
Aleutians West	871.1	**	**	102.0*	70.3*	**	**
Anchorage	729.9	20.8	16.5	41.6	15.6	6.0	10.7
Bethel	972.9	25.4*	9.8*	93.6	52.6	14.7*	**
Bristol Bay Borough	922.0	**	**	149.6*	**	0.0	**
Denali Borough	475.0*	0.0	0.0	**	**	0.0	0.0
Dillingham	874.5	39.4*	**	122.3	26.1*	**	**
Fairbanks North Star Borough	737.3	17.7	14.3	47.9	19.2	5.0	10.2
Haines Borough	680.7	**	**	**	**	0.0	**
Juneau Borough	688.1	25.2	11.2*	46.4	19.5	**	11.8*
Kenai Peninsula Borough	781.7	16.3	18.7	67.2	18.7	3.2*	11.1
Ketchikan Gateway Borough	793.8	22.8*	8.4*	35.6	23.5*	**	12.5*
Kodiak Island Borough	740.5	27.4*	**	32.2	21.5*	**	12.2*
Lake And Peninsula	1,141.5	112.7*	**	262.8	0.0	**	**
Matanuska-Susitna Borough	791.3	11.8	17.7	51.6	24.2	4.1*	6.5*
Nome	1,035.1	45.0*	14.6*	131.2	67.5	**	**
North Slope Borough	1,184.8	27.6*	**	102.1	50.4*	**	0.0
Northwest Arctic Borough	1,083.6	49.3*	**	148.5	74.5	**	**
Prince Of Wales-Outer Ketchikan	762.3	19.4*	**	58.4*	**	0.0	**
Sitka Borough	739.3	24.1*	14.5*	58.2	23.8*	**	17.4*
Skagway-Hoonah-Angoon	698.3	43.0*	**	115.1*	**	0.0	**
Southeast Fairbanks	725.3	25.5*	**	43.6*	**	**	**
Valdez-Cordova	768.6	32.2*	15.2*	79.6	30.5*	**	**
Wade Hampton	1,196.4	32.6*	**	127.3	73.2	23.1*	**
Wrangell-Petersburg	797.8	28.1*	27.7*	71.4*	**	**	**
Yakutat Borough	615.3*	**	0.0	**	**	**	0.0
Yukon-Koyukuk	1,050.5	86.3	**	131.7	52.8*	20.4*	**
ALASKA Total	767.2	21.3	14.8	53.7	21.6	5.5	10.2

1 Rates are age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Problem Statement: Alcohol-Related Consequences

There are approximately 79,000 deaths attributable to excess alcohol each year in the United States. The consequences of alcohol abuse are severe in Alaska; Alaska consistently has one of the highest rates of death from alcohol-related causes. Alaska's alcohol-related problems mirror issues experienced in other states—domestic/family violence, intentional and unintentional injury, motor vehicle crash, mental illness, crime, poverty, and unemployment. In addition, a variety of medical diseases are associated with alcohol abuse and dependency including diseases of nervous, circulatory, and digestive system.

From 2005 to 2009, nearly one of every 13 Native deaths was an alcohol induced death.

Data Analysis

Mortality data was provided by the Alaska Bureau of Vital Statistics. Injury and other consequential data was provided through the Alaska Trauma Registry, Fetal Alcohol Syndrome Disorder (FASD) Surveillance System, and Alaska School Districts

Alaska Bureau of Vital Statistics

Http://www.hss.state.ak.us/dph/bvs/data/default.htm

Overall, males experienced 1.5 times the number and rate of alcohol induced deaths than females. Alaska Natives experience the highest rate of alcohol induced death. Prevalence of alcohol induced death among Native females aged 25-54 years was higher than males. From 2005 to 2009, nearly one of every 13 Native deaths was an alcohol induced death. Prevalence was higher in rural Alaska (Table 2.6 and 2.7; Chart 2.3 and 2.4). Causes of alcohol induced death included alcohol psychoses, alcohol dependence syndrome, non-dependent abuse of alcohol, alcohol induced chronic liver disease and cirrhosis, and alcohol poisoning.

Table 2.6. Number of Alcohol Induced Deaths by Age, Gender, and Race, Alaska, 2005-2009

	Number of Deaths by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	0	0	0	0	0	0	0	0
Black	0	1	0	1	1	0	0	3
AI/NA	0	1	24	41	55	22	9	152
White	0	0	6	26	40	29	21	122
All Races[1]	0	2	31	68	96	51	30	278
Male								
Asian/PI	0	0	0	2	2	0	1	5
Black	0	0	0	0	1	2	0	3
AI/NA	0	7	16	37	48	29	14	151
White	0	3	5	31	97	76	46	258
All Races[1]	0	10	22	71	149	108	62	422
Total								
Asian/PI	0	0	0	2	2	0	1	5
Black	0	1	0	1	2	2	0	6
AI/NA	0	8	40	78	103	51	23	303
White	0	3	11	57	137	105	67	380
All Races[1]	0	12	53	139	245	159	92	700

1 "All Races" includes decedents whose race is "Unknown" or 2 or more races.
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

Cause of Death: Alcohol-Induced	ICD-10 Codes
	E244, F10, G312, G621, G721, I426, K292, K70, K860, R780, X45, X65, Y15

Table 2.7. Rates of Alcohol Induced Deaths by Age, Gender, and Race, Alaska, 2005-2009

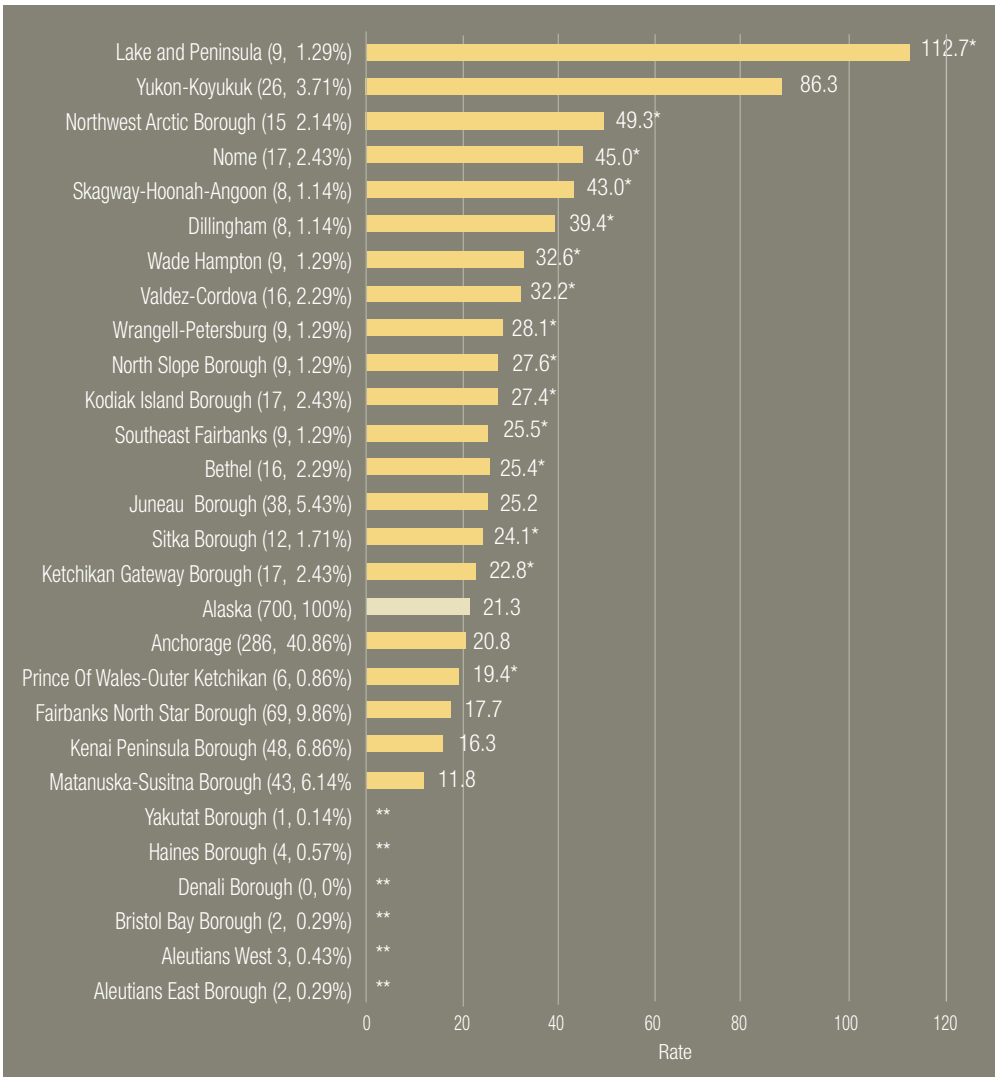
	Rate[1] by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Black	0.0	**	0.0	**	**	0.0	0.0	**
AI/NA	0.0	**	64.2	107.2	149.6	96.2	44.6*	60.6
White	0.0	0.0	3.9*	14.3	19.8	22.4	23.1	10.4
All Races[2]	0.0	**	14.3	28.2	36.6	30.3	24.3	17.3
Male								
Asian/PI	0.0	0.0	0.0	**	**	0.0	**	**
Black	0.0	0.0	0.0	0.0	**	**	0.0	**
I/NA	0.0	11.5*	42.3*	94.0	133.4	135.8	83.4*	63.3
White	0.0	**	**	16.5	44.2	49.9	51.9	19.6
All Races[2]	0.0	3.9*	9.6	28.3	54.1	57.9	54.4	25.2
Total								
Asian/PI	0.0	0.0	0.0	**	**	0.0	**	**
Black	0.0	**	0.0	**	**	**	0.0	4.8*
AI/NA	0.0	6.9*	53.2	100.5	141.6	115.3	62.2	61.6
White	0.0	**	3.4*	15.4	32.5	37.3	37.3	15.2
All Races[2]	0.0	2.4*	11.8	28.3	45.6	44.8	38.8	21.3

1 Rates are per 100,000 persons in age group, age-adjusted to the year 2000 US standard population.
2 "All Races" includes decedents whose race is "Unknown."
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

Cause of Death:	ICD-10 Codes
Alcohol-Induced	E244, F10, G312, G621, G721, I426, K292, K70, K860, R780, X45, X65, Y15

Chart 2.3. Alcohol Induced Death and Rates[1] by Borough/Census Area, Alaska, 2005-2009

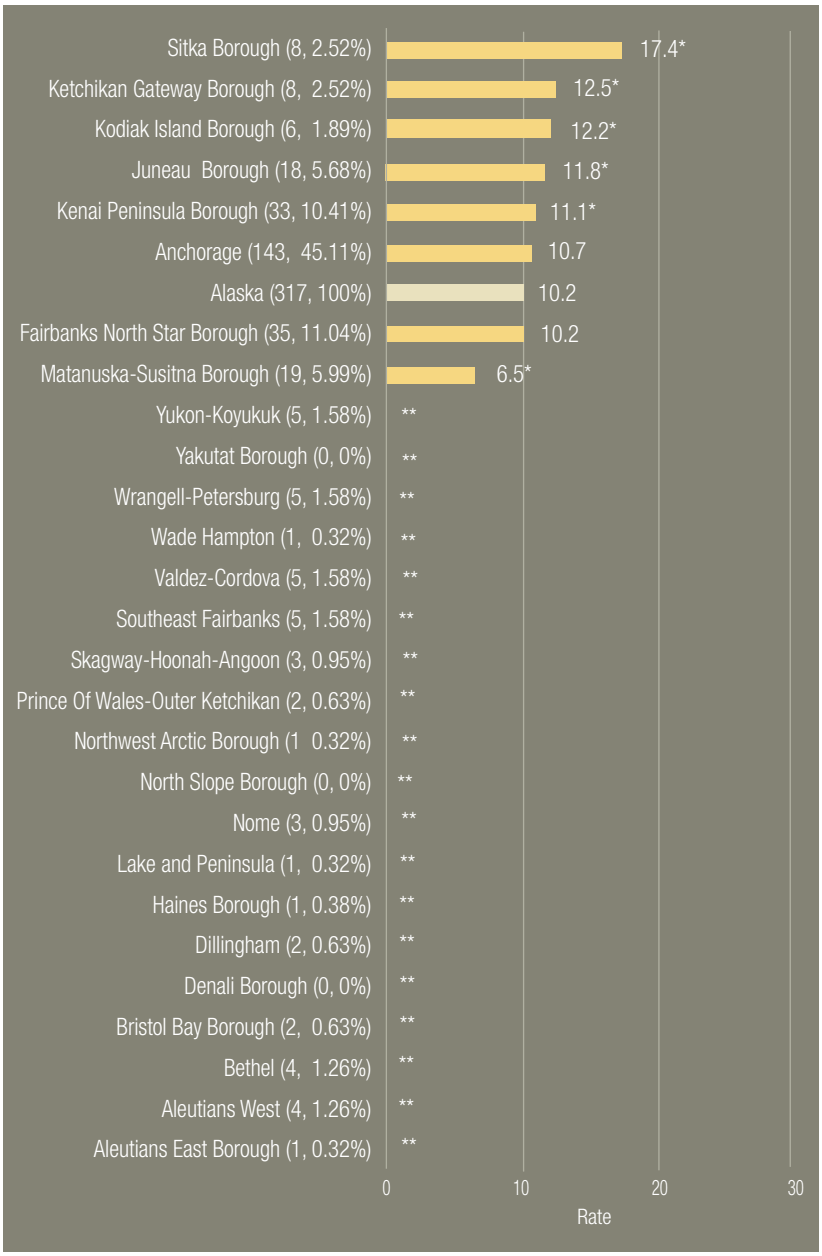
Borough/Census Area (# of death, % of statewide total)



1 Rates are age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Chart 2.4. Chronic Liver Disease and Cirrhosis Death and Rates[1] by Borough/Census Area, Alaska, 2005-2009

Borough/Census Area (# of death, % of statewide total)



1 Rates are age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.

** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Alaska Natives experienced the highest rate of death due to unintentional injury in contrast to Whites who experienced the greatest number of deaths. Prevalence was higher among Alaska Native aged 25-54 years who experienced 2-3 times the rate of death of non-Alaska Natives. From 2005 to 2009, males were 2.3 times more likely than females to die from unintentional injury, where prevalence was highest among males aged 15-24 years. Lake and Peninsula borough had the highest rates of unintentional injury, followed by Bristol Bay and Northwest Arctic boroughs (Table 2.8 and 2.99; Chart 2.5).

Alaska Natives experienced the highest rate of death due to unintentional injury in contrast to Whites who experienced the greatest number of deaths.

Table 2.8. Number of Unintentional Injury Deaths by Age, Gender, and Race, Alaska, 2005-2009

	Number of Deaths by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	1	0	2	1	0	1	3	8
Black	1	0	0	1	0	1	0	3
AI/NA	22	21	32	26	32	8	28	169
White	27	28	34	39	63	27	70	288
All Races[1]	51	49	68	67	96	37	102	470
Male								
Asian/PI	4	5	1	1	3	1	3	18
Black	1	0	5	4	2	3	2	17
AI/NA	48	67	63	76	64	24	36	378
White	39	114	120	122	171	91	99	756
All Races[1]	93	188	190	205	241	119	141	1,177
Total								
Asian/PI	5	5	3	2	3	2	6	26
Black	2	0	5	5	2	4	2	20
AI/NA	70	88	95	102	96	32	64	547
White	66	142	154	161	234	118	169	1,044
All Races[1]	144	237	258	272	337	156	243	1,647

1 "All Races" includes decedents whose race is "Unknown."
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

Cause of Death:	ICD-10 Codes
Unintentional Injury	V01-X59, Y85-Y86

Table 2.9. Rate of Unintentional Injury Deaths by Age, Gender, and Race, Alaska, 2005-2009

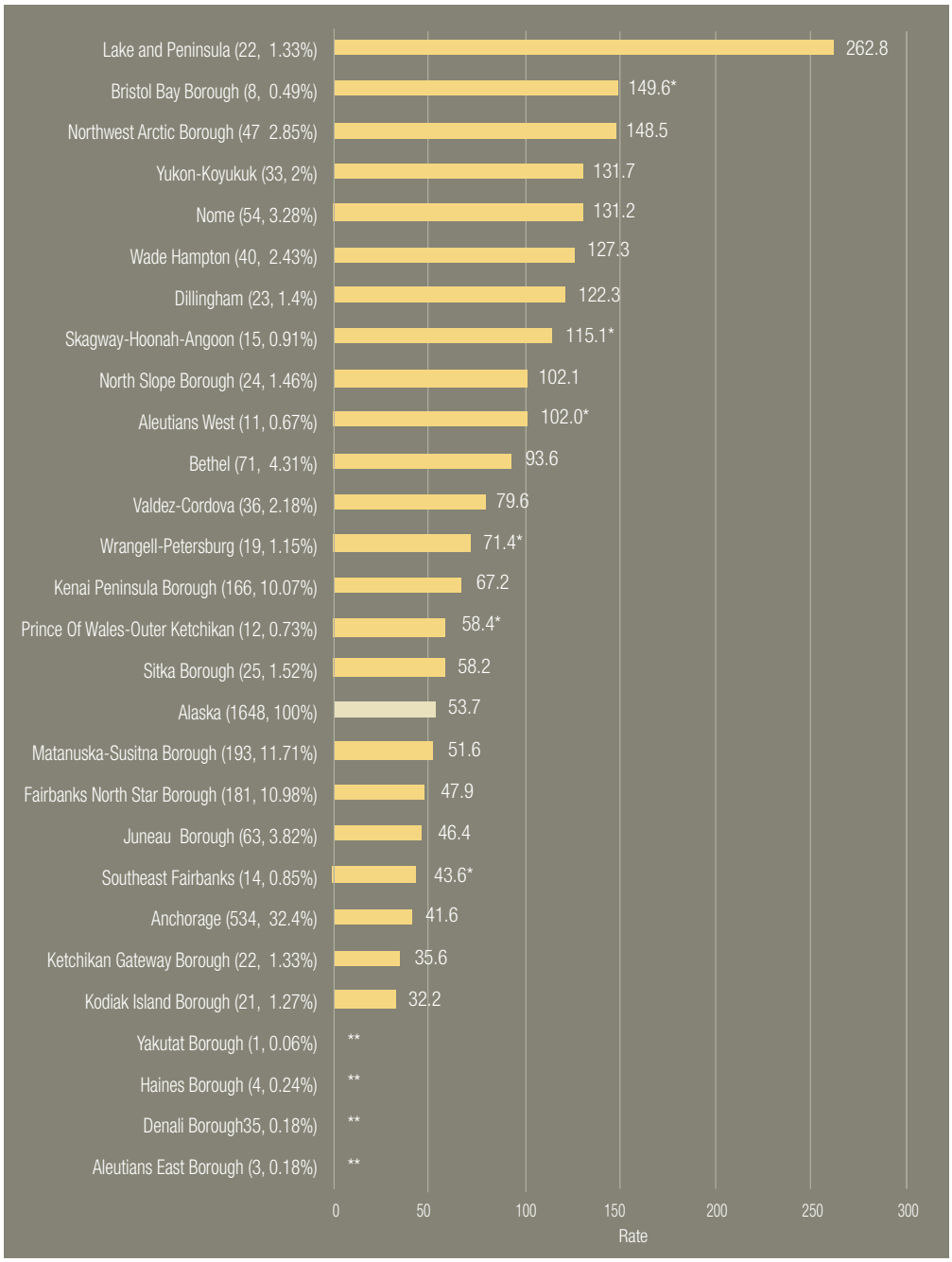
	Rate[1] by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	**	0.0	**	**	0.0	**	**	9.6*
Black	**	0.0	0.0	**	0.0	**	0.0	**
AI/NA	25.1	37.8	85.6	68.0	87.0	35.0*	138.6	66.8
White	10.5	17.1	21.9	21.5	31.2	20.8	77.1	27.7
All Races[2]	12.9	19.8	31.3	27.8	36.6	22.0	82.7	32.4
Male								
Asian/PI	**	**	**	**	**	**	**	21.4*
Black	**	0.0	**	**	**	**	**	30.7*
AI/NA	50.3	110.0	166.5	193.0	177.9	112.4	214.6	142.8
White	14.0	69.0	72.9	64.8	78.0	59.8	111.7	64.6
All Races[2]	22.2	73.5	82.5	81.8	87.5	63.8	123.7	74.2
Total								
Asian/PI	**	**	**	**	**	**	39.8*	15.1
Black	**	0.0	**	**	**	**	**	16.5
AI/NA	38.2	75.5	126.3	131.4	132.0	72.3	173.1	104.9
White	12.3	43.2	48.1	43.6	55.6	41.9	94.2	46.6
All Races[2]	17.7	47.1	57.7	55.3	62.7	43.9	102.4	53.7

1 Rates are per 100,000 persons in age group, age-adjusted to the year 2000 US standard population.
2 "All Races" includes decedents whose race is "Unknown."
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

Cause of Death:	ICD-10 Codes
Unintentional Injury	V01-X59, Y85-Y86

Chart 2.5. Unintentional Injury Death and Rates[1] by Borough/Census Area, Alaska, 2005-2009

Borough/Census Area (# of death, % of statewide total)



1 Rates are per 100,000 population in age groups, age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Alaska Trauma Registry (ATR)

Over one-tenth of all hospitalized injury patients had suspected or proven drug use injuries

The high rate of alcohol abuse in Alaska contributed significantly to the rate of serious non-fatal injury. Most national statistics were available only for death. In Alaska, hospitalizations due to injury were reported to the Alaska Trauma Registry (ATR). The information should be considered an underascertainment of injuries associated with alcohol. Injury resulting from someone else's alcohol involvement was not reportable to the registry. For example, a hospitalized injury victim would be reported to the registry (alcohol suspected or proven would be noted); however an intoxicated all-terrain vehicle driver causing the pedestrian-vehicle crash would not be reported to the registry unless the driver was hospitalized for injuries (alcohol suspected or proven would be noted).

Nearly 25% of all hospitalized injury patients had suspected or proven alcohol use injuries. Of these hospitalizations, prevalence was higher among males (61%) than females (39%); and the rate of males was nearly double that of females for hospitalized injuries associated with alcohol use at the time of the injury. Prevalence was higher among Alaska Natives, having rates at least 7 times greater than other race groups for injuries associated with alcohol use. (Table 2.10 and 2.11)..

Table 2.10. Top Five Hospitalized Injury Associated with Alcohol Use, by Gender, ATR 2004-2008

Cause of Injury	Male		Female
Assault	833	Suicide Attempt	1018
Falls	762	Falls	488
Suicide Attempt	640	Assault	244
Motor Vehicle	393	Motor Vehicle	186
All-Terrain Vehicle / Snow Machine	303	Poisoning	106

Table 2.11. Hospitalized Injury Associated with Alcohol Use, Alaska Residents, by Race and Ethnicity, ATR 2004-2008

	Number of Injury Cases	Number of Suspected or Proven Alcohol Use by Patient At Time of Injury	Percent Suspected or Proven Alcohol Use	Rate of Injury (Per 100,000 Persons)	Rate of Injury Among Persons with Suspected or Proven Alcohol Use (per 100,000 Persons)
Asian / Pacific Islander	607	53	8.7%	318.4	27.8
Black	570	98	17.2%	386.8	66.5
Hispanic	356	62	17.4%	225.8	39.3
Native American / Alaska Native	8,632	3,635	42.1%	1448.1	609.8
White	13,506	2,058	15.2%	558.8	85.1
Unknown	994	187	18.8%		
Total	24,665	6,093	24.7%	736.0	181.8

School Suspensions and Expulsions Due to Alcohol

From 2003 to 2008, 1341 suspension and 64 expulsions from school were related to alcohol. High school suspension and expulsions for alcohol use occurred more frequently than middle and elementary school (Table 2.12 and 2.13). The number of high school suspensions declined 41% from 222 (the highest number of suspensions from 2003 to 2008) in 2006 to 131 (highest number of suspensions in 1 year time frame) in 2008. Middle school suspensions also declined 29% from 55 in 2006 to 39 in 2008. The ratio of expulsion-suspension for high school students shifted from 1:20 in 2004 to 1:14 in 2007. Suspensions for elementary school students presented no statistically significant change, and no expulsions occurred in 2008.

Table 2.12. Trends in Alcohol Related School Suspensions, Alaska, 2003-2008

	2003	2004	2005	2006	2007	2008
Elementary School	4	2	3	1	0	5
Middle School	15	31	52	55	27	39
High School	168	201	201	222	184	131

Source: Alaska Department of Education & Early Development

Table 2.13. Trends in Alcohol Related School Expulsions, Alaska, 2003-2008

	2003	2004	2005	2006	2007	2008
Elementary School	0	0	0	0	0	0
Middle School	1	5	2	0	2	0
High School	9	10	14	15	6	0

Source: Alaska Department of Education & Early Development

The result may be mild to severe cognitive impairment, mental retardation, social and emotional problems, learning disabilities, visual impairment, neurobehavioral problems and other structural birth defects.

Fetal Alcohol Spectrum Disorders (FASD)

The term "FASD indicates that there are a variety of effects of prenatal alcohol exposure. FASD is not a diagnosis. This definition of fetal alcohol spectrum disorders (FASD) national experts representing the Centers for Disease Control and Prevention (CDC); the National Institute on Alcohol Abuse and Alcoholism (NIAAA); the Substance Abuse and Mental Health Services Administration (SAMHSA); Health Canada; and the fields of research, psychiatry, and justice.

Although the various FASD are permanent conditions, specific systems may be treatable or manageable. Thus, the nature of the disorder and individual affected.

Canada uses the singular term "fetal alcohol spectrum disorder," and the descriptive term and not a diagnostic term.

Http://www.epi.hss.state.ak.us/mchepi/mchdatabook/default.htm

SAMHSA estimates the prevalence of FASD at about 100 per 10,000 live births. Brain damage can occur when alcohol crosses the placenta and damages developing tissues. The result may be mild to severe cognitive impairment, mental retardation, social and emotional problems, learning disabilities, visual impairment, neurobehavioral problems and other structural birth defects. Although other etiologies may lead to similar clinical presentations, prenatal alcohol exposure is by definition the only cause of FASD. Fetal Alcohol Syndrome (FAS) is the most severe.

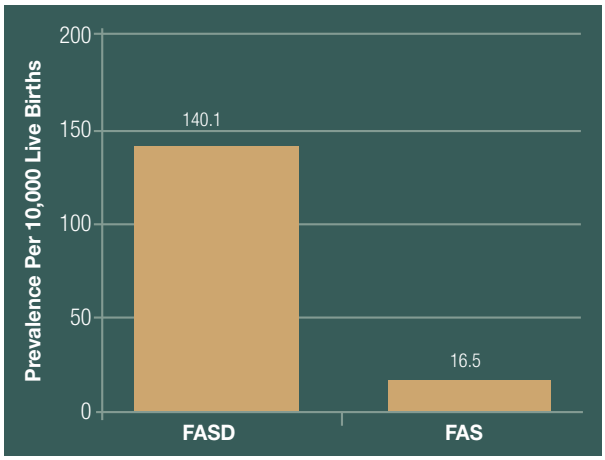
The Division of Public Health, Section of Women's, Children's, and Family Health collects information pertaining to FAS and FASD. Population-based estimates of FAS birth prevalence were higher for Alaska than other states. Prevalence in Alaska (Table 2.14 and Chart 2.6) is provided below.

Table 2.14 FASD by Select Birth Characteristics, Alaska 1996-2002

	Number	Birth Prevalence1 [1]
Gender		
Female	417	122.8
Male	484	135.2
Birth Weight		
Low and Very Low	145	363.8
Normal	813	123.5
Maternal Race		
Asian, Pacific Islander	< 5	**
Black	10	*
Hispanic	24	53.3
Native American, Alaska Native	812	478.0
White	132	29.2
Maternal Age		
15 - 19 years	138	179.0
20 – 29 years	475	125.2
30 – 39 years	321	145.1
40 – 45 years	21	111.1
Prenatal Care		
First Trimester	557	101.2
Second Trimester	266	256.9
Third Trimester	79	296.3
Maternal Tobacco Use		
Reported	617	478.8
Not Reported	327	58.8

1 Prevalence per 10,000 live births.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska MCH Data Book, Birth Defects Surveillance Edition, 2005.

Chart 2.6. Prevalence of Specific Fetal Alcohol Spectrum Disorders, Alaska, 1996-2002



Source: Alaska MCH Data Book, Birth Defects Surveillance Edition, 2005.

Problem Statement: Illicit Drug-Related Consequences

Drug abuse and dependency are among Alaska's most insidious health and social concerns, impacting individuals, families, friends, and community. This is particularly true in small rural settings where family and friends constitute the entire community.

Inhalant abuse by adolescents and young adults is a serious health and social issue in Alaska. In rural Alaska, gasoline is a common inhalant used by adolescents. As with alcohol, drug abuse is associated with domestic/family violence, intentional and unintentional injury, mental illness, crime, poverty, and unemployment. A variety of medical diseases are also associated with drug abuse and dependency including anemia, nutritional and metabolic diseases, and diseases of nervous, respiratory, skin and musculoskeletal systems.

From 2005-2009, prevalence of drug induced death among Alaska Native females aged 25-34 years and 45-54 years were higher than males.

Data Analysis

Mortality data was provided by the Alaska Bureau of Vital Statistics. Injury and other consequential data was provided through the Alaska Trauma Registry, and Alaska School Districts

Alaska Bureau of Vital Statistics
Http://www.hss.state.ak.us/dph/bvs/data/default.htm

Drug induced mortality included deaths from dependent and non-dependent use of drugs; legal and illegal drugs; and poisonings from medically prescribed drugs. It excluded accidents, homicides and other causes indirectly related to drug use. In 2001, the rate of drug induced death began to increase with a more accelerated rise in Alaska Natives, particularly Alaska Native females. From 2005-2009, prevalence of drug induced death among Alaska Native females aged 25-34 years and 45-54 years were higher than males. South Central boroughs with greater population density and boroughs exhibiting rapid growth had higher rates of drug induced death than Alaska overall. While the highest rate was in the Southeast borough of Wrangell-Petersburg, fewer than 20 deaths were documented and should be evaluated with caution. (Table 2.15 and 2.16; Chart 2.7).

Table 2.15. Number of Drug Induced Deaths by Age, Gender, and Race, Alaska, 2005-2009

	Number of Deaths by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	0	0	0	0	1	0	0	1
Black	0	0	0	2	0	0	1	3
AI/NA	1	5	14	10	17	5	4	56
White	1	10	25	32	49	15	7	139
All Races[1]	2	15	39	44	67	20	12	199
Male								
Asian/PI	0	0	0	0	2	0	0	2
Black	0	0	1	2	2	3	0	8
AI/NA	0	6	8	17	16	0	1	48
White	2	38	45	56	73	27	6	247
All Races[1]	2	45	54	76	93	30	7	307
Total								
Asian/PI	0	0	0	0	3	0	0	3
Black	0	0	1	4	2	3	1	11
AI/NA	1	11	22	27	33	5	5	104
White	3	48	70	88	122	42	13	386
All Races[1]	4	60	93	120	160	50	19	506

1 "All Races" includes decedents whose race is "Unknown."
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

Cause of Death:	ICD-10 Codes
Drug-Induced2	D521, D590, D592, D611, D642, E064, E160, E231, E242, E273, E661, F110-F115, F117-F119, F120-F125, F127-F129, F130-F135, F137-F139, F140-F145, F147-F149, F150-F155, F157-F159, F160-F165, F167-F169, F170-F175, F177-F179, F180-F185, F187-F189, F190-F195, F197-F199, G211, G240, G251, G254, G256, G444, G620, G720, I952, J702-J704,

L105, L270-L271, M102, M320, M804, M814, M835, M871, R781, R782-R785, X40-X44, X60-X64, X85, Y10-Y14

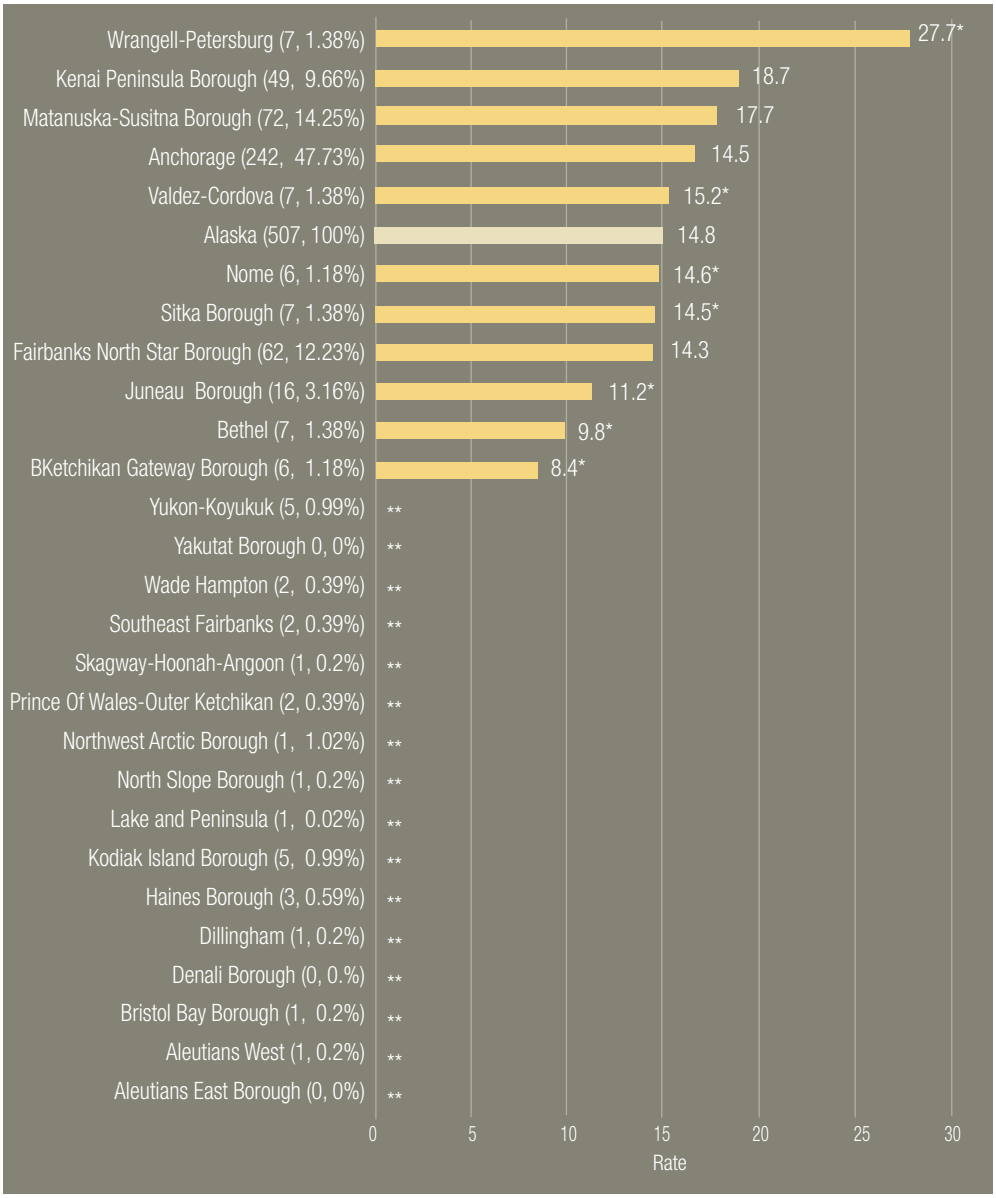
Table 2.16. Rates of Drug Induced Deaths by Age, Gender, and Race, Alaska, 2005-2009

	Rate[1] by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	0	0.0	0	0.0	**	0.0	0	**
Black	0	0.0	0	**	0	0.0	**	**
AI/NA	**	**	37.4*	26.1*	46.2*	**	**	21.5
White	**	6.1*	16.1	17.7	24.3	11.6*	7.7*	11.2
All Races[2]	**	6.1*	18	18.3	25.6	11.9	9.7*	12.0
Male								
Asian/PI	0	0.0	0	0.0	**	0.0	0	**
Black	0	0.0	**	**	**	**	0	12.8*
AI/NA	0	9.9*	21.1*	43.2*	44.5*	0.0	**	18.2
White	**	23.0	27.3	29.7	33.3	17.7	6.8*	18.8
All Races[2]	**	17.6	23.4	30.3	33.8	16.1	6.1*	17.4
Total								
Asian/PI	0	0.0	0	0.0	**	0.0	0	**
Black	0	0.0	**	**	**	**	**	10.2*
AI/NA	**	9.4*	29.2	34.8	45.4	**	**	19.9
White	**	14.6	21.9	23.8	29	14.9	7.2*	15.0
All Races[2]	**	11.9	20.8	24.4	29.8	14.1	8.0*	14.8

1 Rates are per 100,000 persons in age group, age-adjusted to the year 2000 US standard population.
2 "All Races" includes decedents whose race is "Unknown."
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan
Source: Alaska Bureau of Vital Statistics, February 2011.

Chart 2.7. Drug Induced Death and Rates[1] by Borough/Census Area, Alaska, 2005-2009

Borough/Census Area (# of death, % of statewide total)



1 Rates are per 100,000 population in age groups, age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Alaska Trauma Registry

The high rate of drug abuse in Alaska contributed significantly to the rate of serious non-fatal injury. In Alaska, hospitalizations due to injury were reported to the Alaska Trauma Registry. The information should be considered an underascertainment of injuries associated with illegal drug use. Injuries resulting from someone else's drug use that initiated or contributed to an injury were not reportable to the registry. For example, a hospitalized pedestrian hit by snowmobile would be reported to the registry (illegal drug use suspected or proven would be noted); however an individual driving the snowmobile would not be reported to the registry unless the individual is hospitalized for injuries (illegal drug use suspected or proven would be noted).

Over one-tenth of all hospitalized injury patients had suspected or proven drug use injuries. Of these hospitalizations, the prevalence was higher among males (56%) than females (44%); and while the distribution was nearly equal among Alaska Natives (46%) and non-Alaska Natives (51%), prevalence was higher among Alaska Natives. (Table 2.17 and 2.18).

Table 2.17. Number of Hospitalized Injury Associated with Drug Use, Alaska Residents, by Gender, ATR 2004-2008

Cause of Injury	Male	Female	
Suicide Attempt	515	Suicide Attempt	827
Assault	280	Motor Vehicle	125
Motor Vehicle	220	Assault	82
Falls	160	Falls	78
All-Terrain Vehicle / Snow Machine	118	Poisoning	48

Table 2.18. Hospitalized Injury Associated with Drug Use, Alaska Residents, by Race and Ethnicity, ATR 2004-2008

	Number of Injury Cases	Number of Suspected or Proven Drug Use by Patient At Time of Injury	Percent Suspected or Proven Drug Use	Rate of Injury (Per 100,000 Persons)	Rate of Injury Among Persons with Suspected or Proven Drug Use (Per 100,000 Persons)
Asian / Pacific Islander	607	35	5.8%	318.4	18.4
Black	570	107	18.8%	386.8	72.6
Hispanic	356	44	12.4%	225.8	27.9
Native American / Alaska Native	8,632	1,375	15.9%	1448.1	230.7
White	13,506	1,220	9.0%	558.8	50.5
Unknown	994	98	9.9%		
Total	24,665	2,879	11.7%	736.0	85.9

School Suspensions and Expulsions Due to Illicit Drugs

From 2003 to 2008, 4089 suspension and 488 expulsions from school were related to drugs. High school suspension and expulsions for drug use occurred more frequently than middle and elementary school (Table 2.19 and 2.20). The numbers of high school suspensions had not significantly change from 464 in 2006 to 446 in 2008, whereas middle school suspensions declined 34% from 128 in 2006 to 82 in 2008. The ratio of expulsion-suspension for high school students remained relatively unchanged (1:9, respectively.) Suspensions for elementary school students presented no statistically significant change from 2006 to 2008, and no expulsions occurred during that same period.

Table 2.19. Trends in Drug Related School Suspensions, Alaska, 2003-2008

Trends in Drug Related School Suspensions, Alaska, 2003-2008

	2003	2004	2005	2006	2007	2008
Elementary School	27	222	21	4	0	1
Middle School	184	176	117	128	124	82
High School	538	593	533	464	429	446

Source: Alaska Department of Education & Early Development

Table 2.20. Trends in Drug Related School Expulsions, Alaska, 2003-2008

Trends in Drug Related School Expulsions, Alaska, 2003-2008

	2003	2004	2005	2006	2007	2008
Elementary School	1	0	1	0	0	0
Middle School	10	16	7	11	12	15
High School	112	94	67	54	41	47

Source: Alaska Department of Education & Early Development

Problem Statement: Tobacco Use Related Consquences

Tobacco use is considered the leading health problem in Alaska. Tobacco is addictive. Smoking causes heart disease and 85% of all lung cancers. Tobacco use has been shown to short lives of Alaskans more than all infectious disease and lead to more deaths than alcohol and drug use.

Data Analysis

Mortality data was provided by the Alaska Bureau of Vital Statistics.

Alaska Bureau of Vital Statistics
Http://www.hss.state.ak.us/dph/bvs/data/default.htm

Deaths associated with tobacco use were the most prevalent of all substance related deaths for Alaskans.

Deaths associated with tobacco use were the most prevalent of all substance related deaths for Alaskans. Nearly one out of seven deaths was attributed as tobacco related. The number of deaths related to tobacco use was twice the number of alcohol induced deaths, illicit drug induced deaths, and chronic liver disease/cirrhosis combined. However, the magnitude was most apparent when comparing the rates of tobacco death, where tobacco attributable deaths were more than 1.6 times higher than deaths due to alcohol, drug, and chronic liver disease/cirrhosis combined. Alaska Natives had the highest rate of death attributed to smoking, of which Native males are twice as likely to die from tobacco use as Native females (Table 2.21). Causes of death attributable to tobacco use included several types of cancer, cardiovascular disease, respiratory disease, and infant death (Table 2.22).

Table 2.21. Number of Smoking Attributable Deaths* by Age, Gender, and Race, Alaska, 2005-2009

	0-24		25-64		65+		All Ages	
	Deaths	Rate[1]	Deaths	Rate[1]	Deaths	Rate[1]	Deaths	Rate[1]
Female								
Asian	0	0	11	28.5*	22	250.6	33	77.6
Black	0	0	10	44.0*	11	327.1*	21	110.8
Native	0	0	67	68.7	152	753.5	219	230.5
White	0	0	214	41.7	537	591.5	751	175.3
All Races[2]	0	0	303	45.1	727	589.7	1,030	175.7
Male								
Asian	0	0	22	67.8	28	452.2	50	169.9
Black	0	0	22	95.0	16	670.5*	38	240.5
Native	0	0	117	120.9	174	1,035.7	291	362.4
White	0	0	484	86.4	686	774.4	1,170	270.2
All Races[2]	0	0	647	90.8	911	799.6	1,559	279.0
Total								
Asian	0	0	33	46.5	50	332.6	84	112.4
Black	0	0	32	70.0	27	473.4	59	165.6
Native	0	0	184	94.6	326	881.5	510	291.3
White	0	0	697	65.0	1,224	681.8	1,921	221.5
All Races[2]	0	0	950	68.7	1,638	690.5	2,589	224.8

*Smoking attributable mortality is calculated using Smoking Attributable Mortality, Morbidity and Economic Costs (SAMMEC) methodology
1 Rates are per 100,000 population in age group, age-adjusted to the year 2000 US standard population.
2 "All Races" includes decedents whose race is "Unknown."
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Table 2.22. Number and Percent of Deaths Due to Select Causes Estimated to be Due to Tobacco Use, Alaska Residents, 2005-2009

Causes of Death Associated With Tobacco Use	Total Deaths	Tobacco Related Deaths	Percent Tobacco Related Deaths
Malignant Neoplasms	1,964	1,225	62%
Lip, Oral Cavity, Pharynx	46	31	67%
Esophagus	115	80	70%
Stomach	104	19	18%
Pancreas	248	54	22%
Larynx	20	19	95%
Trachea, Lung, Bronchus	1,184	959	81%
Cervix Uteri	27	3	11%
Kidney and Renal Pelvis	96	21	22%
Urinary Bladder	69	29	42%
Acute Myeloid Leukemia	55	10	18%
Cardiovascular Diseases	3,877	683	18%
Ischemic Heart Disease	1,843	386	21%
Other Heart Disease	1,058	140	13%
Cerebrovascular Disease	829	105	13%
Atherosclerosis	24	5	21%
Aortic Aneurysm	69	40	58%
Other Arterial Disease	54	7	13%
Respiratory Diseases	1,015	686	68%
Pneumonia, Influenza	220	43	20%
Bronchitis, Emphysema	124	110	89%
Chronic Airways Obstruction	671	533	79%
Infant Deaths	100	16	16%
Total	**6,956**	**2,610**	**38%**

Source: Alaska Bureau of Vital Statistics, February 2011.

Problem Statement: Alcohol- and Drug-Related Transportation Crashes

In 2006, Alaska ranked 21st out of the fifty states for motor vehicle deaths. Approximately one out of three fatal motor vehicle crashes were alcohol related.

Data Analysis

Data on alcohol- and drug-related transportation risk behavior and associated fatalities was provided through the YRBS, the BRFSS, the Fatality Analysis Reporting System (FARS) and other morbidity data sets. National averages were available for most recent comparisons.

Youth Risk Behavior Survey (YRBS)

http://apps.nccd.cdc.gov/youthonline/

Definition of activities associated with drinking and driving:

- Driving after drinking was defined as driving a car or other vehicle within the past 30 days when you had been drinking alcohol.
- Passenger with a drinking driver was defined as riding in a car or another vehicle within the past 30 days that was driven by someone who had been drinking alcohol.

From 1999 to 2009, the report of drinking prior to operating a motor vehicle declined. Overall, the prevalence of alcohol-related motor vehicle events among Alaska high school youth was below the national average in 2009 and lower than in previous years of the survey. However, one out of four youth still accompany a driver who had been drinking alcohol. Prevalence of drinking and driving episodes was lower among female high school students. Prevalence of driving after drinking had increased among Grade 11 and was higher than national averages (Table 2.23 and 2.24).

Table 2.23. Trends in Motor Vehicle Driving After Drinking Among Youth, by Gender, Alaska YRBS

	1999	2003	2007	2009	U.S. 2007	U.S. 2009
Female						
% Driving After Drinking	11.2	8.0	7.8	6.9	8.1	7.6
% Passenger With a Drinking Driver	31.0	25.0	25.4	22.7	28.8	28.8
Male						
% Driving After Drinking	15.9	14	11.3	10.7	12.8	11.6
% Passenger With a Drinking Driver	29.2	24.7	21.5	19.7	29.5	27.8

Table 2.24. Trends in Motor Vehicle Driving After Drinking Among Youth, by Grade, Alaska YRBS

	1999	2003	2007	2009	U.S. 2007	U.S. 2009
Grade 9						
% Driving After Drinking	8.8	6.1	5.0	3.8	5.5	5.0
% Passenger With a Drinking Driver	25.8	22.0	20.9	19.1	27.6	27.5
Grade 10						
% Driving After Drinking	12.5	11.8	7.8	7.1	8.7	8.3
% Passenger With a Drinking Driver	30.5	26.4	27.7	18.7	28.7	28.0
Grade 11						
% Driving After Drinking	16.2	14.8	10.9	12.3	11.5	11.4
% Passenger With a Drinking Driver	29.4	26.5	25.0	22.5	29.2	29.4
Grade 12						
% Driving After Drinking	20.2	13.9	16.5	13.2	18.3	15.4
% Passenger With a Drinking Driver	36.7	25.8	20.6	24.4	31.5	28.2

Behavior Risk Factor Surveillance Survey (BRFSS)

http://apps.nccd.cdc.gov/brfss/

Definition of activities associated with drinking and driving:

- Driving after drinking was defined as driving a car or other vehicle within the past 30 days when you had been drinking alcohol.
- Passenger with a drinking driver was defined as riding in a car or another vehicle within the past 30 days that was driven by someone who had been drinking alcohol.

The Alaska survey collected information pertaining to driving after drinking on even years. From 2000 to 2008, prevalence of driving after drinking was not significantly different by gender nor age over the period of the survey (Table 2.25 and 2.26). National averages were not available for this indicator.

Table 2.25. Trends of Adults Driving After Drinking Among Adults, by Gender, Alaska BRFSS

	2000	2002	2004	2006	2008
Female					
% Driving After Drinking	1.9	2.6	2.5	3.8	1.4
Male					
% Driving After Drinking	4.9	4.6	4.6	5.6	4.6

Table 2.26. Trends of Adults Driving After Drinking Among Adults, by Age Group, Alaska BRFSS

		2000	2002	2004	2006	2008
Ages 18 thru 20	% Driving After Drinking	8.5	9.1	1.3	15.1	0.0
Ages 21 thru 29	% Driving After Drinking	7.1	3.8	2.9	10.4	3.3
Ages 30 thru 34	% Driving After Drinking	5.2	3.6	3.8	4.4	3.7
Ages 35 thru 54	% Driving After Drinking	2.4	4.1	4.8	2.9	4.1
Ages 55 thru 64	% Driving After Drinking	1.3	1.9	2.2	1.3	2.0
Ages 65 and over	% Driving After Drinking	0.0	0.3	1.4	4.3	0.6

Fatality Analysis Reporting System (FARS)

http://www.dot.state.ak.us/stwdplng/hwysafety/stats.shtml

Definition of activities associated with drinking and driving:

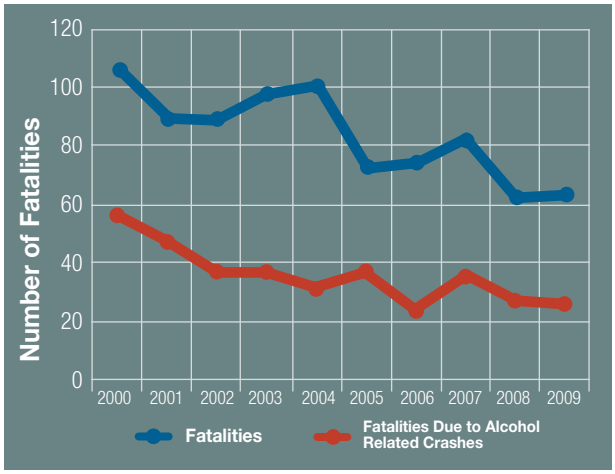
- Driving under the influence (DUI) or "drunk driving" was defined as operating a motor vehicle while ones blood alcohol is above the legal limit of 0.08 mg/dl blood alcohol concentration (BAC).

Alcohol-related motor vehicle deaths were prevalent but declining. This may be attributed to a number of campaigns promoting safe driving habits and awareness of enforcement action. Total number of fatal motor vehicle events had steadily declined of which the decline of alcohol-related fatal crashes was more pronounced, from 48% in 2000 to 37% in 2009 (Table 2.27; Chart 2.8). Beginning in 2002, Alaska rate for alcohol-related motor vehicle crashes fell below the national average.

Table 2.27. Fatalities Due to Alcohol-Related Motor Vehicle Crashes, Alaska FARS

	Fatal Crashes	Fatalities	Alcohol-Related Fatal Crashes	Fatalities Due to Alcohol-Related Crashes	Percent Alcohol Related Crashes	Percent Alcohol Related Fatalities
2000	93	106	45	56	48%	53%
2001	80	89	42	47	53%	53%
2002	78	89	34	37	44%	41%
2003	87	98	34	37	39%	38%
2004	96	101	30	31	31%	31%
2005	66	73	32	37	48%	50%
2006	71	74	23	23	32%	31%
2007	75	82	31	35	41%	43%
2008	55	62	22	27	40%	44%
2009	59	64	22	26	37%	41%

Chart 2.8. Total Motor Vehicle Crash Fatalities Compared to Alcohol-Related Motor Vehicle Crash Fatalities, Alaska FARS



Prior to 2009, trends in BAC among drivers involved in fatal motor vehicle crashes were variable. In 2009 the percent of drivers with BAC > 0.08 mg/dl rose significantly while the percent of drivers with BAC = 0.01-0.07 mg/dl to declined (Chart 2.9 and 2.10). This trend was similar among youth. Improved law enforcement surveillance of drivers suspected of driving after drinking and BAC testing may account for the shift. (Table 2.28 and 2.29).

Chart 2.9. Percent of Persons Killed, by Highest Driver BAC in Crash, Alaska FARS

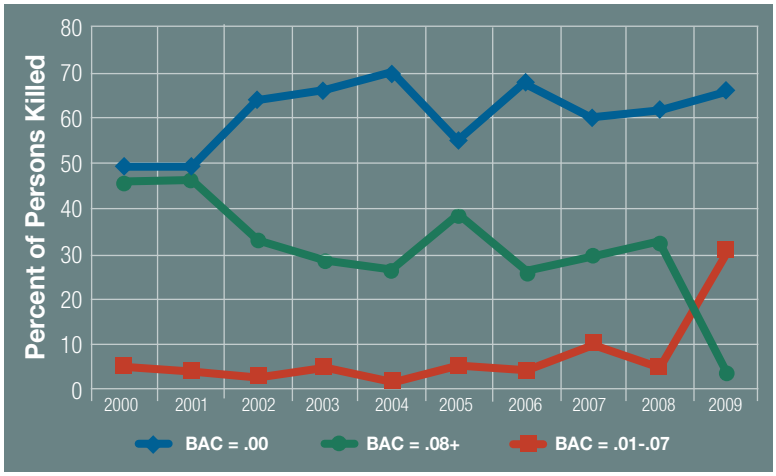


Chart 2.10. Trends in Blood Alcohol Concentration (BAC) Collected After Fatal Motor Vehicle Crashes, FARS

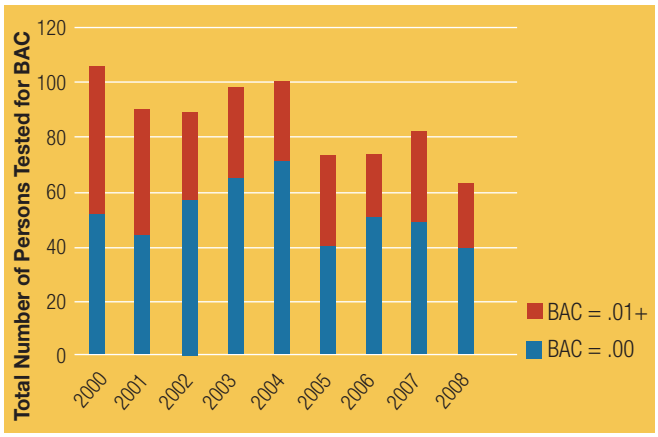


Table 2.28. Total 15-20 Year Old Drivers Involved in Fatal Crashes, by BAC, FARS

	0.00%	0.01% - 0.09%	0.10+%	Test Refused	None Given	Test Performed, Results Unknown	PBT Positive Reading with No Actual Value	Unknown	Blank	Total
2000	9	2	7	0	10	0	0	1	0	29
2001	8	2	2	0	4	0	0	0	0	16
2002	3	0	1	0	12	0	0	1	0	17
2003	4	0	1	0	15	0	0	0	0	20
2004	8	0	0	0	7	0	0	0	0	15
2005	4	0	2	0	6	0	0	0	0	12
2006	7	0	2	0	7	1	0	0	0	17
2007	8	1	3	0	9	0	0	0	0	21
2008	12	0	0	0	4	1	0	0	0	17
2009	5	1	3	0	1	0	0	0	0	10
Total	68	6	21	0	75	2	0	2	0	174

Table 2.29. Motor Vehicle Fatalities by Person Type, Alaska FARS

	Driver of a Motor Vehicle in Transport	Passenger of a Motor Vehicle in Transport	Pedestrian	Bicyclist	Persons on Personal Conveyances*	Other Persons
2000	68	23	10	4	0	1
2001	64	17	7	1	0	0
2002	53	19	16	0	0	1
2003	66	19	9	4	0	0
2004	72	17	10	2	0	0
2005	46	18	7	1	1	0
2006	47	16	9	1	1	0
2007	46	21	13	2	0	0
2008	40	18	3	1	0	0
2009	33	19	9	2	1	0

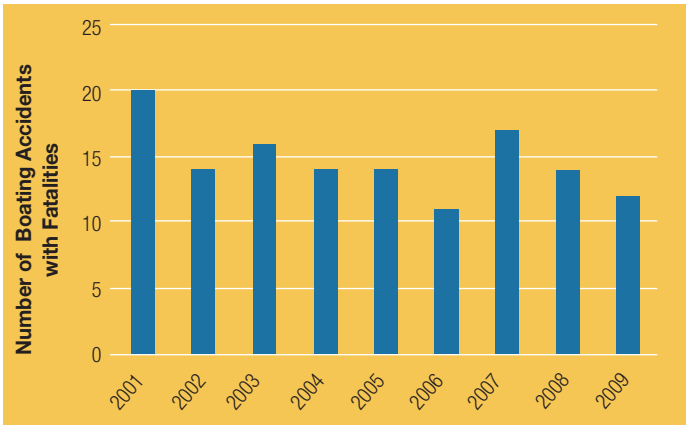
* Personal conveyances may include roller blades, skateboard, motorized wheelchair, etc.

Drowning and Recreational Boating Fatality Databases

http://dnr.alaska.gov/parks/boating/accident.htm

Boating in Alaska can be a normal form of daily transportation between home and community. Working industries include commercial fishing, guiding services, and tourism. Boating is also a common recreational activity among 100+ communities on approximately 44,000 miles of coastal shoreline and numerous lakes, streams, and rivers. From 2001 to 2009, 200 recreational boating accidents with fatalities were documented (Chart 2.11).

Chart 2.11. Recreational Boating Fatalities, Alaska, 2001-2009

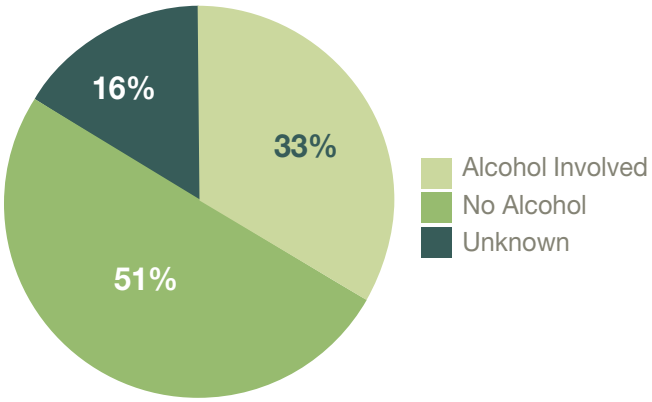


Source: Alaska Office of Boating Safety.

Boating Under the Influence (BUI) is responsible for ~34% of fatal boat events each year in the United States. BUI is very similar to a Driving Under the Influence (DUI) offense. Law enforcement officials will look for erratic behavior while operating a boat and will ask the operator to perform a field sobriety test and

to take a chemical test. Between 2005 and 2009, 68 recreational boating events with 75 fatalities occurred in Alaska, of which one-third were associated with known alcohol use (Chart 2.12). Prevalence was higher among males (88%) and was higher for adults 18-24 years (28%). Of the 2009 events, 5 of the 12 involved canoes.

Chart 2.12. Recreational Boating Fatalities Associated with Alcohol, Alaska, 2005-2009



Source: Death Certificate and Surveillance databases, Section of Injury Prevention & EMS in cooperation with Alaska Safety Marine Education Association and the United States Coast Guard.

Problem Statement: Other Consequences Related to Substance Abuse and Dependency

According to the 2009 Annual Drug Report by Alaska Bureau of Alcohol and Drug Enforcement, Alaska's current drugs of choice (excluding tobacco) were alcohol, cocaine, methamphetamine, marijuana, and pharmaceuticals. Areas of growing interest, as seen by law enforcement officials, are 1) methamphetamine use and manufacture and 2) pharmaceutical (hydrocodone and oxycontin/oxydocone) abuse and "club" drugs. Alcohol and drugs are leading co-contributors to violence, suicide, and injury-related deaths.

Data Analysis

Data on other consequences related to substance abuse and dependency were provided through the following data providers: YRBS, Alaska Bureau of Vital Statistics (BVS), Alaska Violent Death Reporting System (AKVDRS), Alaska Occupational Surveillance (OIS), Uniform Crime Report (UCR), Alaska Juvenile Justice, Alaska Bureau of Alcohol and Drug Enforcement (ABADE),

Youth Risk Behavior Survey (YRBS)

Http://apps.nccd.cdc.gov/youthonline/

Substance use and teen sexual activity often co-occur (See Section 1 - Consumption). In 2009, CDC-National Center for Chronic Disease Prevention and Health Promotion reported that 46% of high school student reported having sexual intercourse, and 14% of high school students reported having four or more sexual partners. Results from the 2009 Alaska YRBS, the percent of high school student reporting sexual activity was lower than national averages. In contrast, the percentage of Alaska high school student reporting use of a condom during sexual intercourse was significantly higher than the national average (Table 2.30).

Table 2.30. Trends in Reported Youth Sexual Behavior, by Grade, Alaska YRBS

	1995	1999	2003	2007	2009	U.S. 2007	U.S. 2009
9th Grade							
% Ever Had Sexual Intercourse	38.9	28.6	22.4	26.6	26.2	26.6	31.6
% Had Sex Before 13	12.2	8.3	4.9	6.0	7.0	6.0	7.7
% Had Sex With ≥4 Partners	12.2	8.6	5.5	6.6	4.0	6.6	8.8
% Currently Sexually Active	22.8	18.1	13.2	14.6	16.6	14.6	21.4
Among Sexually Active, % Who Used a Condom During Last Sexual Intercourse	64.1	70.6	69.6	78.7	69.2	--	36.0
10th Grade							
% Ever Had Sexual Intercourse	36.7	40.2	33.2	46.9	39.9	46.9	40.9
% Had Sex Before 13	8.2	6.1	4.6	3.8	4.1	3.8	6.5
% Had Sex With ≥4 Partners	13.8	12.3	9.2	13.8	10.0	13.8	11.7
% Currently Sexually Active	22.8	19.9	21.3	34.2	23.6	34.2	29.1
Among Sexually Active, % Who Used a Condom During Last Sexual Intercourse	59.4	66.2	69.6	69.6	62.3	--	32.2
11th Grade							
% Ever Had Sexual Intercourse	55.8	54.7	48.7	48.3	52.9	48.2	53.0
% Had Sex Before 13	6.3	7.7	3.0	3.7	4.8	3.7	4.3
% Had Sex With ≥4 Partners	17.8	17.5	15.5	16.5	15.1	16.5	15.2
% Currently Sexually Active	36.9	33.0	35.5	35.1	38.8	35.1	40.3
Among Sexually Active, % Who Used a Condom During Last Sexual Intercourse	55.1	66.4	64.9	56.9	58.8	56.8	38.6
12th Grade							
% Ever Had Sexual Intercourse	63.9	56.7	60.0	62.6	55.6	62.6	62.3
% Had Sex Before 13	5.6	5.4	3.4	4.0	3.6	4.0	4.4
% Had Sex With ≥4 Partners	27.0	20.5	20.0	18.1	17.3	18.120.9	
% Currently Sexually Active	43.6	42.0	45.2	42.0	43.0	42.0	49.1
Among Sexually Active, % Who Used a Condom During Last Sexual Intercourse	42.0	46.1	53.8	48.8	63.7	48.8	45.0

Alaska Bureau of Vital Statistics

Http://www.hss.state.ak.us/dph/bvs/data/default.htm

Suicide is legally defined as the act of voluntarily and intentionally taking one's own life. Suicide is also closely associated with alcohol use, drug abuse, or both. Alaskans commit suicide at a much greater rate than all other states. Suicide

was the fourth leading cause of death among Alaska Natives, where higher rates are found among Native males and in Northern and Southwest regions of Alaska (Table 2.31 and 2.32; Chart 2.13).

Table 2.31. Suicide Death by Age, Gender, and Race, Alaska, 2005-2009

	Number of Deaths by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	0	2	0	1	1	0	0	4
Black	0	2	0	0	0	0	0	2
AI/NA	3	23	10	12	3	3	0	54
White	1	9	8	24	30	10	7	89
All Races[1]	4	36	18	37	34	13	7	149
Male								
Asian/PI	0	2	5	1	3	1	0	12
Black	0	4	2	0	1	1	0	8
AI/NA	3	81	43	29	19	4	3	182
White	0	54	61	65	79	62	39	360
All Races[1]	3	143	112	95	102	69	42	566
Total								
Asian/PI	0	4	5	2	4	1	0	16
Black	0	6	2	0	1	1	0	10
AI/NA	6	104	53	41	22	7	3	236
White	1	63	69	89	109	72	46	449
All Races[12]	7	179	130	132	136	82	49	715

1"All Races" includes decedents whose race is "Unknown" or 2 or more races".
Source: Alaska Bureau of Vital Statistics, February 2011.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan

Cause of Death:	ICD-10 Codes
Suicide	U03, X60-X84, Y870

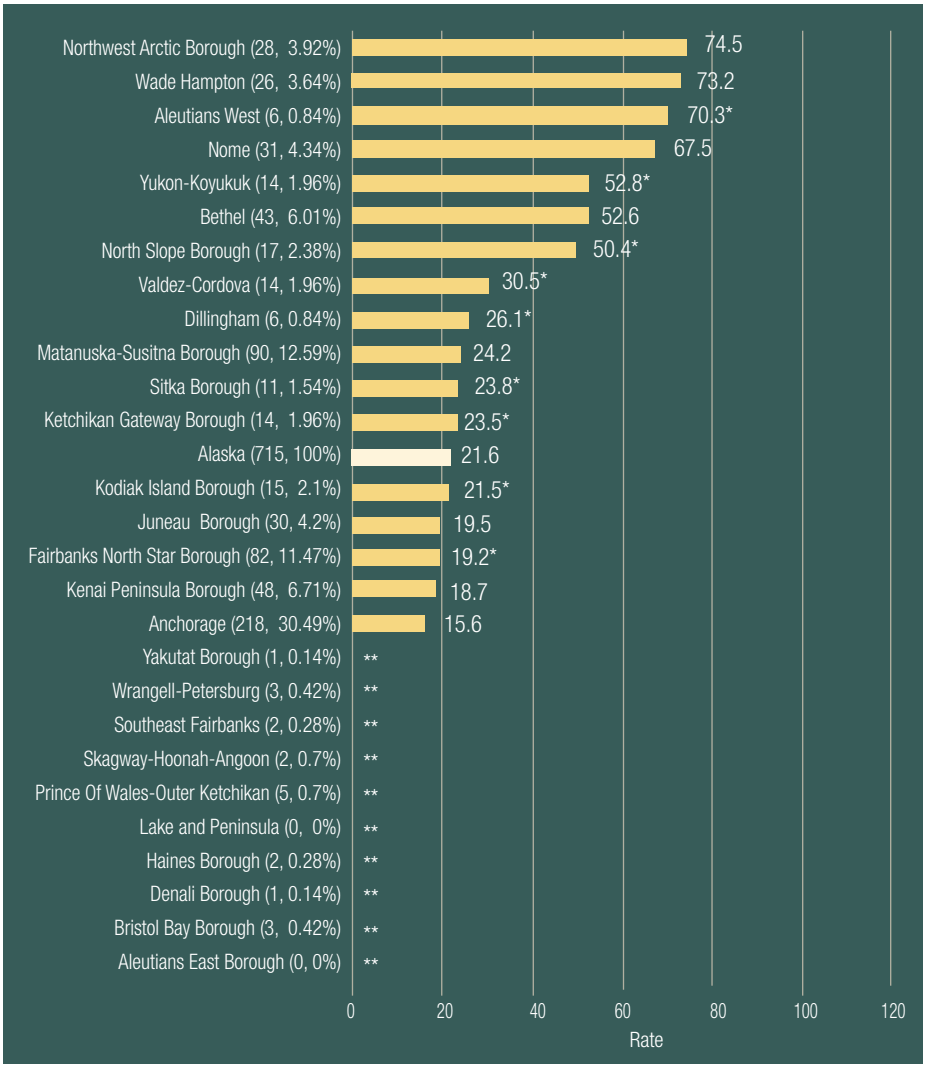
Table 2.32. Rates of Suicide Death by Age, Gender, and Race, Alaska, 2005-2009

	Rate[1] by Age Group							
	0-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Female								
Asian/PI	0.0	**	0.0	**	**	0.0	0.0	**
Black	0.0	**	0.0	0.0	0.0	0.0	0.0	**
AI/NA	**	41.4	26.7*	31.4*	**	**	0.0	17.5
White	**	5.5*	5.1*	13.2	14.9	7.7*	7.7*	7.3
All Races[2]	**	14.6	8.3*	15.3	13.0	7.7*	5.7*	9.0
Male								
Asian/PI		0.0	**	**	**	**	**	0.0
13.4*								
Black	0.0	**	**	0.0	**	**	0.0	9.1*
AI/NA	**	133.0	113.6	73.6	52.8*	**	**	57.8
White	0.0	32.7	37.1	34.5	36.0	40.7	44.0	30.0
All Races[2]	**	55.9	48.6	37.9	37.0	37.0	36.8	34.2
Total								
Asian/PI	0.0	**	**	**	**	**	0.0	8.4*
Black	0.0	22.7*	**	0.0	**	**	0.0	5.8*
AI/NA	3.3*	89.3	70.4	52.8	30.2	15.8*	**	37.8
White	**	19.1	21.6	24.1	25.9	25.5	25.6	18.6
All Races[2]	9*	35.6	29.1	26.8	25.3	23.1	20.7	21.6

1 Rates are age-adjusted to the year 2000 US standard population.
2 "All Races" includes decedents whose race is "Unknown" or "2 or more races"
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
PI - Pacific Islander; AI/NA - American Indian/Native Alaskan
Source: Alaska Bureau of Vital Statistics, February 2011.

Cause of Death:	ICD-10 Codes
Suicide	U03, X60-X84, Y870

Chart 2.13. Suicide Death and Rates[1] by Borough/Census Area, Alaska, 2005-2009



1 Rates are per 100,000 population, age-adjusted to the year 2000 US standard population.
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.
** Rates based on fewer than 6 events are not reported.
Source: Alaska Bureau of Vital Statistics, February 2011.

Alaska Violent Death Reporting System (VDRS)

Http://www.epi.hss.state.ak.us/injury/akvdrs/

Substance abuse is widely recognized as a major contributing factor to violent crimes, especially domestic, family, and intimate partner violence and sexual assault. The Alaska Violent Death Reporting System (VDRS) is a comprehensive, linked reporting system that collects and centralizes information on violent deaths from a variety of sources, including Bureau of Vital Statistics (death certificates), State Medical Examiner's Office (autopsy report), and law enforcement agencies (investigation reports). The VDRS captures information such as treatment status, diagnoses and toxicology test results.

Definition of Violent Death:

- A death that results from the intentional use of physical force or power, threatened or actual, against oneself, another person, or group.

Substance abuse is widely recognized as a major contributing factor to violent crimes, especially domestic, family, and intimate partner violence and sexual assault.

Analysis of the 2003-2008 Alaska VDRS data indicated seven out ten victims tested for alcohol and/or drug use (amphetamine, anti-depressants, cocaine, marijuana, opiates, or other drugs considered as evidence) were positive, suggesting that substance use contributed to pre-event circumstances (Table 2.33).

Table 2.33. Trends in Violent Death Associated with Substance Abuse, Alaska VDRS

	2003	2004	2005	2006	2007	2008	Total
Total Number of Victims Identified	188	225	197	207	234	278	1347
Number of Victims Tested for Alcohol and/or Drugs	105	129	109	131	132	202	808
Number of Victims Positive for Alcohol and/or Drugs	61	79	81	97	94	152	564
Percent Positive for Alcohol*	43.7%	34.7%	44.7%	50.8%	53.0%	46.4%	45.8%
Percent Positive for Drugs*	35.3%	52.1%	51.4%	53.3%	54.6%	57.9%	51.8%
Percent Positive for Both Alcohol and Drugs*	20.0%	23.0%	18.6%	27.7%	29.9%	27.5%	24.9%

*Denominators based on number of tests performed for alcohol, drugs, or both alcohol and drugs.

Alaska Occupational Injury Surveillance (OIS)

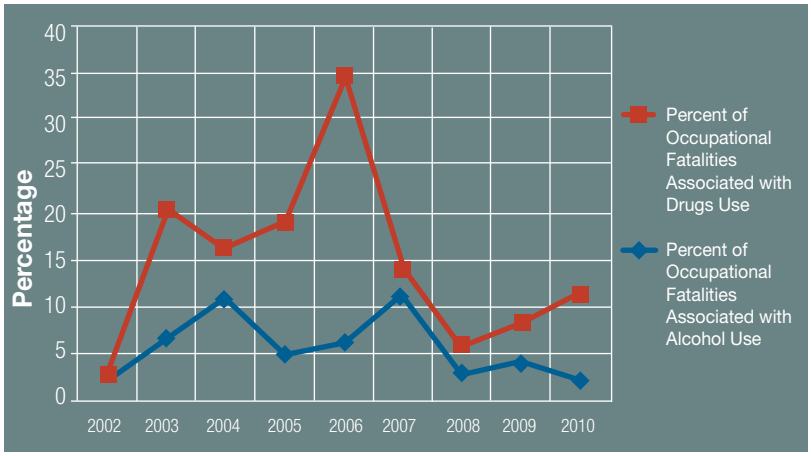
Http://www.epi.hss.state.ak.us/injury/occupation_injury/

Definitions of associated alcohol use prior to occupation-related death:

- Law enforcement and medical examiner reports noting positive toxicology results for alcohol use or noting evidence of suspected alcohol use prior to death

From 2002 to 2010, 12% of work-related deaths in Alaska were documented as suspected or proven alcohol and/or drug involvement that contributed to the pre-event circumstances. Information presented below were not mutually exclusive, including cases involving both alcohol and drug use (Chart 2.14).

Chart 2.14. Trends in Occupational Fatalities Associated with Alcohol and/or Drug Use, Alaska OIS, 2002-2010



Alaska Uniform Crime Report (UCR)

Http://www.dps.alaska.gov/Statewide/UCR.aspx

The strong association between substance use and crime is well documented as to the effects dependency and abuse had on the user's behavior and by generating violence and other illegal activity. The Alaska UCR collects information from law enforcement agencies statewide, however not all agencies participate; approximately 99.3% of population served by these agencies were represented in the 2009 UCR. The crime index is composed of selected offenses used to gauge fluctuations in the overall volume and rate of crime reported to law enforcement. The crime rate compares the incidence of crime to the total reporting agency population. Reported crimes associated with substance abuse are based on crime index offenses that can be monitored over time.

Definition of violent and property crimes:

- All violent crime involves force or threat of force.
- Property crime is the taking of money or property without force or threat of harm.

From 2008 to 2009, the number of homicides in Alaska decreased 30% (Table 2.34).

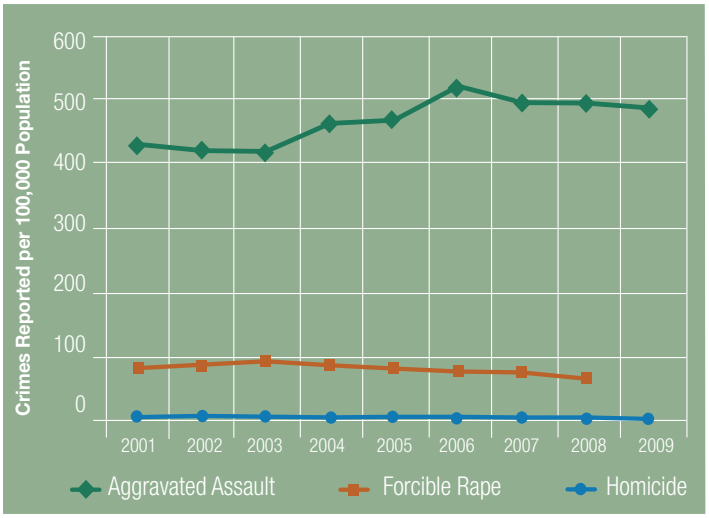
Table 2.34. Crime Index and Rate Variance, Alaska UCR 2008-2009

	Population	Total Offenses	Violent Crimes	Aggravated Assault	Homicide	Burglary	Larceny-Theft	Forcible Rape	Robbery
Crime Index	2.3%	2.8%	1.6%	0.7%	-30.0%	10.2%	1.4%	12.8%	0.2%
Crime Rate		0.5%	-0.6%	-1.6%	-31.8%	7.7%	-0.9%	*	-2.1%

*Female population data not available.

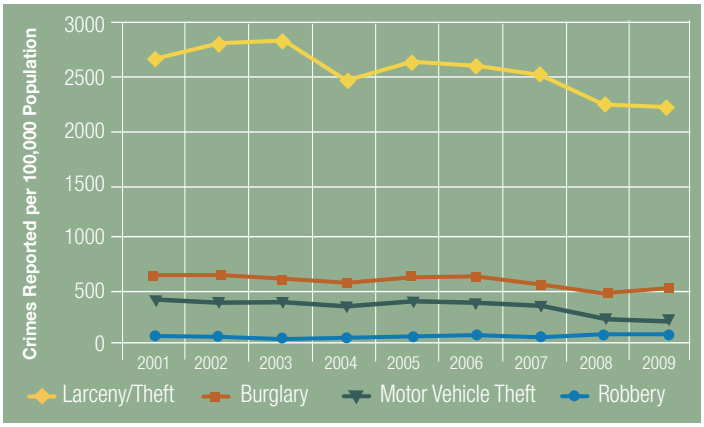
The rate of forcible rape was not provided in the 2009 UCR, however the number of rapes increased nearly 13% in 2009. By UCR definition, male victims of forcible rape were not included. While homicide was the most severe violent offense, it represented <1% of violent crimes. Aggravated assault represented 74% of violent crimes and 13% of the total crime index offenses. Larceny-theft represented 75% of property crimes and 61% of total crime index offenses. Over $35.4 million in property were reported stolen in 2009 (Chart 2.15 and 2.16).

Chart 2.15 Trends in Violent Crime Associated with Substance Abuse, Alaska UCR



*Female population data not available

Chart 2.16 Trends in Property Crime Associated with Substance Abuse, Alaska UCR



In 2009, 1762 adults (18 years of age and over) were arrested in Alaska for drug offenses (sales, manufacture, and possession. The number of arrests for possession continued to increase in 2009, indicating an overall upward trend since 2006. Seventy-eight percent of these arrests were for drug possession, of which the most common offense was for marijuana (76%). The ratio of males arrested for drug possession was 3-fold greater than females. This pattern was consistent for drug sales/manufacture where arrests of males were 2.5-fold greater than females (Chart 2.17, Table 2.35).

Chart 2.17. Trends in Drug Offenses, Adults - 18 Year of Age and Older, Alaska UCR

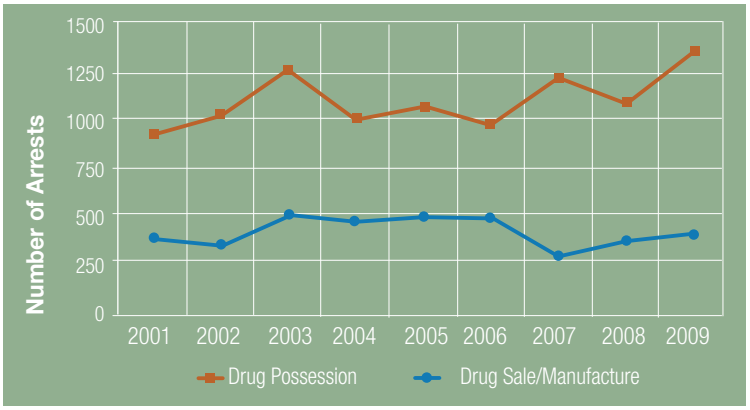


Table 2.35. Trends in Drug Arrest, Adults - 18 years if Age and older, by Gender, Alaska UCR

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Drug Sales/ Manufacture	F	98	81	95	131	128	134	62	89	109
	M	266	249	390	329	356	344	213	257	275
Drug Possession	F	175	191	252	173	215	186	261	226	316
	M	751	841	1017	839	863	789	970	862	1062

The arrest pattern for drug offenses among juveniles was similar to those among adults. In 2009, 311 youth (17 years of age and under) were arrested in Alaska for drug offenses (sales, manufacture, and possession.) While the number of arrests for drug possession declined from 2002 to 2006, the number of arrests continued to increase from 2007 to 2009. Nearly 90% of drug arrests were for drug possession in 2009, of which the most common offense was for marijuana possession (87%). The ratio of juvenile males arrested for drug possession was 2.8-fold greater than juvenile females. This pattern was consistent for drug sales/manufacture where arrests of juvenile males were nearly 13-fold greater than juvenile females (Chart 2.18, Table 2.36).

Chart 2.18. Trends in Drug Offenses, Youth - 17 Years of Age and Under, Alaska UCR

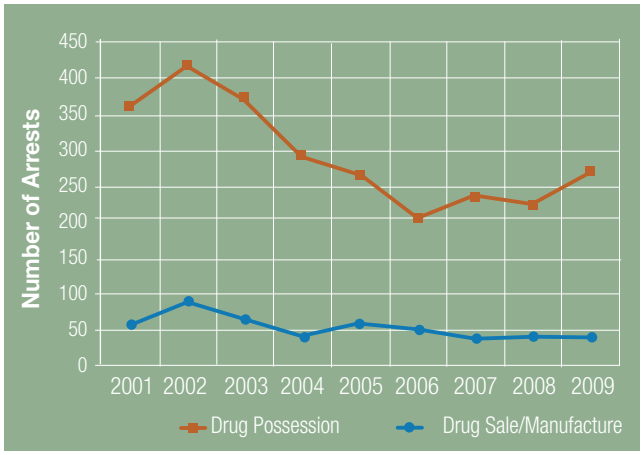


Table 2.36. Trends in Drug Arrests, Youth - 17 Year of Age and Under, by Gender, Alaska UCR

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Drug Sales/ Manufacture	F	11	11	18	15	15	14	8	6	3
	M	47	80	44	27	42	36	30	35	38
Drug Possession	F	74	89	102	77	63	61	57	53	71
	M	285	326	269	214	200	143	177	172	199

Juvenile Justice

Http://health.hss.state.ak.us/djj/

Juvenile correction facilities and programs are under the jurisdiction of the DJJ in the Department of Health and Social Services. The State operates eight juvenile facilities and sixteen probation offices. Most juveniles taken into custody were detained for only short period of time, with cases usually not resulting in long-term confinement. A few cases eventually do lead to longer-term confinement in a secure facility with a structured program.

Definitions of delinquent and delinquency referral:

- A child who violates the criminal law, or who commits a status offense; also, a person subject to juvenile court proceedings because a statutorily defined event caused by the person was alleged to have occurred while his or her age was below the statutory.
- A delinquency "referral" is a request by a law enforcement agency for a response from Alaska Division of Juvenile Justice (DJJ) following the arrest of a juvenile or as a result of the submission of a police investigation report alleging the commission of a crime or violation of a court order. A referral is counted as a single episode or event and a referral may include multiple charges.

At least 10% of all DJJ referrals were alcohol and drug. On average, 6 alcohol and drug offenses were committed for every 5 juveniles arrested, 78% of referred offenders were male and White (62%) followed by Alaska Native (34%) (Chart 2.19; Table 2.37 - 2.39).

Chart 2.19. Alcohol and Drug Referrals, by Percentage of Total Referrals, Alaska DJJ

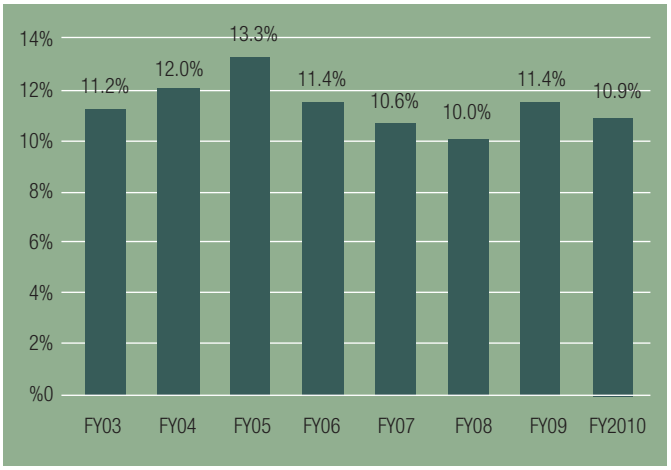


Table 2.37. Drug and Alcohol Referrals for Juvenile Offenders, Alaska DJJ

	Unduplicated Juveniles	Unduplicated Referrals	Drug Offenses	Alcohol Offenses	Total D&A Offenses	Average # of D&A Offenses per juvenile
FY03	777	836	765	112	877	777
FY04	678	747	636	168	804	678
FY05	697	778	625	221	846	697
FY06	576	653	625	185	810	576
FY07	539	605	466	177	643	539
FY08	498	546	439	150	589	498
FY09	491	536	465	118	583	491

Source: Alaska Division of Juvenile Justice, February 2011.

Table 2.38. Drug and Alcohol Referrals for Juvenile Offenders, by Gender, Alaska DJJ

	2000	2001	2002	2003	2004
Female	162	172	213	244	249
Male	536	506	586	508	510
Total	698	678	799	752	759

Source: Alaska Division of Juvenile Justice, February 2011.

Table 2.39. Drug and Alcohol Referral for Juvenile Offenders, by Race, Alaska DJJ

	FY03	FY04	FY05	FY06	FY07	FY08	FY09
American Indian / Alaska Native	234	232	265	201	189	172	131
Asian / Pacific Island	8	9	7	11	22	15	9
Black	25	26	33	32	43	21	25
Multi-Race	56	50	36	45	37	35	32
Other	5	11	6	5	4	4	2
White	495	408	415	348	295	275	315
Unknown	13	11	16	11	15	24	22
Total	836	747	778	653	605	546	536

Source: Alaska Division of Juvenile Justice, February 2007.

Alaska Bureau of Alcohol and Drug Enforcement (ABADE)

Surveillance of methamphetamine problems in Alaska are conflicted. Reports of charges, arrests and drug lab seized 2005 through 2008 were variable but declining. However, quantities of methamphetamine seized in 2009 indicated a

marked increase of its availability in Alaska. According to the Alaska Bureau of Alcohol and Drug Enforcement (ABADE), Anchorage, Mat-Su, and Kenai Peninsula have the most significant problems with clandestine labs that produce quantities for local sale. Ketchikan, Juneau, and other Southeast Alaska communities have larger quantities imported for distribution of select prescription pain medication, seizures, Oxycontin / Oxycondone had also marked increases (Table 2.40 and 2.41; Chart 2.20 and 2.21).

Table 2.40. Trends in Illicit Drug Related Arrests/Charges in the State of Alaska, ABADE 2005-2009

ABADE Drug Enforcements	2005	2006	2007	2008	2009
Cocaine Related Arrests / Charges	194	182	216	187	96
Cocaine Seized (pounds)	54	47	91	43	28
Marijuana Related Arrests/ Charges			1,108	852	1,011
Marijuana Seized (pounds)	102	760	145	253	258
Methamphetamine Seized (pounds)	5	17	8	8	45
Meth Related Arrests/ Charges	234	117	144	138	163
Meth Labs Shut Down	42	18	11	12	9

Table 2.41. Trends in Alcohol and Select Prescription Pain Medication Seizures in the Alaska, ABADE 2005-2009

DEA Seizures	2005	2006	2007	2008	2009
Alcohol (gallons)	994	709	881	1029	582
Hydrocodone (dosage units)	64	521	432	534	281
Oxycontin/Oxycodone (dosage units)	435	1,589	2,176	2,970	3,503

Chart 2.20. Trends in Prescription Medication Seizures in Alaska, ABADE, 2005-2009

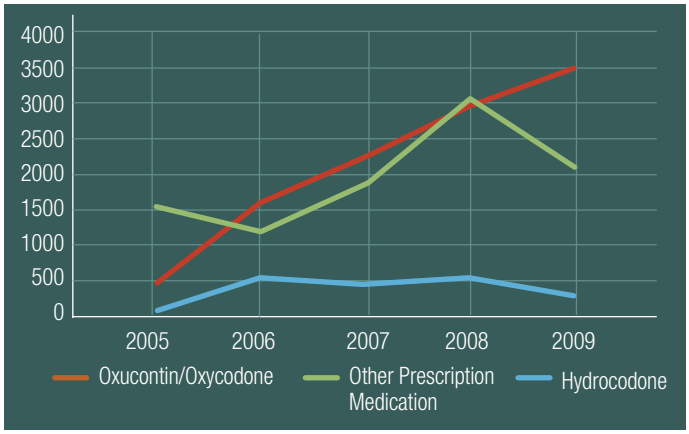
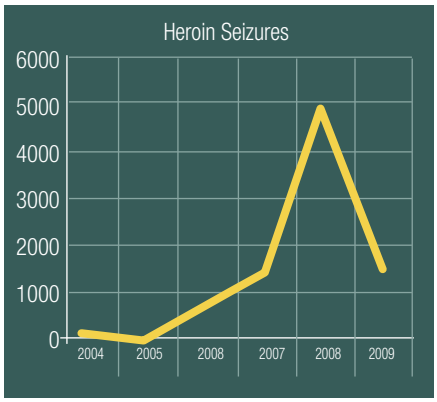


Chart 2.21. Trends in Heroin Seizures in Alaska, ABADE, 2005 - 2009



SECTION 3

INFLUENCES

TO BE AVAILABLE
OCTOBER 2011

Problem Statement & Data Analysis to be released October 2011

Potential Environmental Influences – Youth	Data Source	Potential Environmental Influences – Adult	Data Source
Supportive school environment	SCCS	Treatment bed availability	AK AIMS
Meaningful youth engagement	YRBS	Accessibility to treatment program	
Opportunities for youth in communities	YRBS	Community-based laws re: alcohol/drugs	ABDAA
			Title 47 - DOC
Positive media about youth	SOY	Alcohol Sales	Alc. Sales
Parental involvement in schools	YRBS	Population	
		migration/employment/unemployment	DOL RA
Tobacco sales to minors	SYNAR	Alcohol-related arrests and remand	OTIS – DOC Courts - convictions

Life Domain Issues - Youth	Data Source	Life Domain Issues - Adult	Data Source
Productivity		Productivity	
• School, work, extracurricular activities	CSR	• Work, subsistence, activities	CSR
• Education benchmarks	DEED		DOL-RA
• Suspension/expulsion for alcohol/drugs	DEED	• Loss of productivity	
Security		**Security**	
• Homelessness		• Homelessness	
• Domestic/family/intimate partner violence	AK VDRS	• Domestic/family/intimate partner violence	AK VDRS
			PRAMS
			CDV
• Poverty	DOL-RA	• Poverty	DOL-RA
• Child abuse reports		• Rape/sexual assault	UCR
• Rape/sexual assault	YRBS		
Social Connectedness		**Social Connectedness**	
• Spirituality		• Spirituality	
• Supportive adult(s) in life	YRBS		
Health		**Health**	
• STD rate	Epi	• STD rate	Epi
• Pregnancy rate		• Pregnancy rate	
• Sexual activity	YRBS	• Nutrition	BRFSS
• Wellness	YRBS	• Wellness	BRFSS
• Violence-bullying	YRBS	• Exercise	BRFSS

RECOMMENDATIONS

Recommendations to improve knowledge of substance use, dependency, and abuse and its involvement in injuries and fatalities in Alaska:

- SEOW process should be continued to ensure the collection and analysis of information pertaining to substance abuse and related factors are broadly distributed to healthcare providers, public health officials, policymakers, and community advocates.

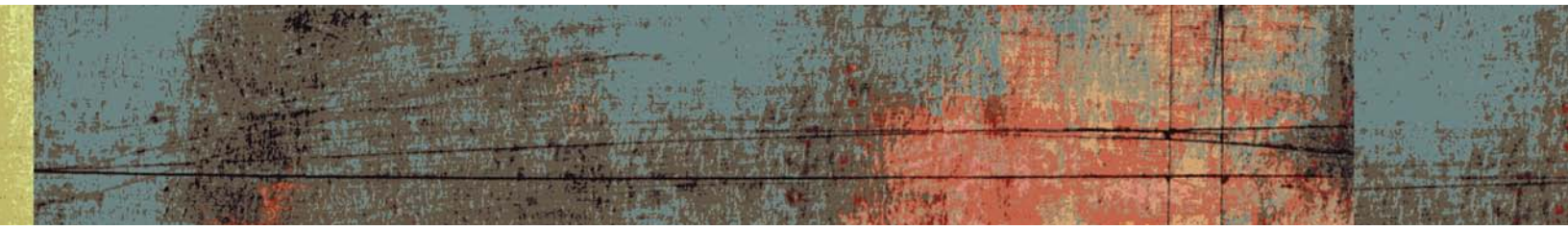
- Continue to identify and assess data gaps in order to improve quality of information detailed in the SEOW process.

- A drug and alcohol screen should be performed on all cases processed by the Medical Examiner's office. The screen should include the most commonly abused drugs in Alaska, especially those of greatest public health concern.

- The Medical Examiner's office should establish a comprehensive database that includes demographic data and quantitative results for all toxicology tests. The database should be designed in a format that is amenable to query to support retrospective data analysis.

- Toxicology data from the Alaska State Troopers, municipal police departments, the Alaska Department of Corrections, the State Medical Examiner's office and Poison Control should be combined in a comprehensive database to provide the most complete picture of drug abuse information.

APPENDICES



A

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B

Appendix B: Data and Data Sources Considered

Division of Behavioral Health (internal):

- Alaska's Automated Information Management System (AK AIMS) – for client status review (CSR); Alaska Screening Tool; Client Episode Data; DSM IV
- Medicaid Claims data
- Quarterly grantee reports (prevention and treatment)
- Synar tobacco sales enforcement data
- Alcohol Safety Action Program data (DUI/MC assessments and monitoring data)
- Alcohol Drug Information Schools data
- FASD data
- FAS Knowledge, Attitudes, Beliefs & Behaviors (KABB) Survey
- Treatment Episode Data Set (TEDS)

Division of Behavioral Health (external):

- National foe Drug Use and Health Survey (NSDUH)
- Uniformed Reporting System (URS)
- Treatment Episodes Data System (TEDS)
- Fatality Analysis Reporting System (FARS)
- Alcohol and tobacco sales data (revenue)
- Rural Patient Management System (RPMS)—Indian Health Services

Division of Public Health:

- Youth Risk Behavior Survey (YRBS)
- Behavioral Risk Factors Survey System (BRFSS)
- Pregnancy Risk Assessment Monitoring System (PRAMS)
- Alaska Birth Defects Registry/Fetal Alcohol Syndrome Surveillance
- Hospital Discharge data
- Pre-hospitalization/EMS
- Poison Control (inhalants, drugs, alcohol)
- Alaska Occupational Injury Surveillance (OIS)
- Alaska Trauma Registry (ATR)
- Alaska Violent Death Reporting System (AKVDRS)
- Maternal Infant Mortality Review (MIMR)
- Child Death/Fatality Review
- Vital Statistics (ICD-10 coding, birth certificate information, etc.)

Alaska Court System:

- Two reporting systems—Legacy (rural) and Courtview (urban)
- Number of people charged with alcohol/drug-related crimes
- Charge of conviction
- Therapeutic Court data
- Number prosecuted for substance abuse-related crimes
- University of Alaska (UAA) Justice Center—ADAM Report; number of arrestees ordered to alcohol assessment
- Judicial Council

Department of Corrections:

- Number of Title 47 holds (involuntary/protective holds)—can also get this from hospitals and contract community jails. Cannot separate between mental health and substance abuse holds.
- Number of Trust beneficiaries receiving services in DOC
- Women's treatment needs study
- Sex offender data
- Inmate Profile study (2003)
- Jail diversion data

Department of Public Safety:

- Alaska Public Safty Information Network APSIN data
- Number of driving under the influence (DUI) arrests
- Alcohol/drug-related arrests

Department of Education and Early Development:

- Youth Risk Behavior Survey (YRBS)
- Graduation rates
- School/Student Profiles (every other year)
- Suspensions, Expulsions and Truancy related to alcohol, tobacco, drugs and violence

Division of Juvenile Justice:

- Juvenile Offender Management Information System (JOMIS), since 2002
- DSM IV diagnoses
- Number of youth attending substance abuse classes/treatment
- Number of alcohol/drug related offenses (by community, demographics)

Office of Children's Services:

- Online Resources for the Children of Alaska (ORCA)
- Number of Child Protective Service (CPS) cases/requests involving Substance Abuse
- Child Advocacy Center data

Miscellaneous Data Sources:

- Veteran's Administration Information
- Veteran's Services caseloads
- Vocational Rehabilitation – services by diagnosis
- Private treatment provider's – both in Alaska and outside
- National Council on Alcoholism and Drug Dependence (NCADD) -- # of referrals to outside providers
- Alaska Action Research Committee
- State Suicide Prevention Council/Vital Statistics
- National Co-Morbidity Study (completed every 10 years)
- Anchorage Municipality data sets—safe cities; detox; substance abuse arrests, etc.
- Government Performances ans Results Act (GPRA) data
- Alaska Injury Prevention Center (suicide follow-back study)
- National Highway Traffic Safety Administration (DUIs, Underage Drinking, etc.)

- Crisis Lines – Careline Crisis Intervention (Fairbanks) and Providence (Anchorage)
- Hospital discharge data – suicide attempts, discharge data, emergency treatment
- Screening, Brief Intervention, Referral and Treatment (SBIRT) – Cook Inlet Tribal Council and Southcentral Foundation
- Agency specific client services and outcome data (Akeela, SEARHC, YKHC, etc.)
- Head Start data
- School Climate & Connectedness Survey (AK Association of School Boards-AASB)
- Grading Grown-ups (AASB & Becky Judd)
- Profiles of Student Life -- since 1995 by schools (AASB)
- Domestic Violence Program data
- University of Alaska Program data (e.g. Justice Center, Center for Human Development, Institute for Circumpolar Health, Center for Substance Abuse)

C

Appendix C: Alaska Epidemiological Outcomes Indicators Considered

ALCOHOL CONSUMPTION INDICATORS

Percent of youth lifetime alcohol use	YRBS
Percent reporting 30-Day alcohol use	YRBS BRFSS NSDUH
Percent of youth first alcohol before age 13	YRBS
Percent of youth alcohol on school property	YRBS
Percent of youth age of first use of alcohol	YRBS
Percent reporting binge alcohol use	YRBS BRFSS NSDUH
Percent of youth alcohol or drug use before last sexual intercourse	YRBS
Percent reporting alcohol dependency or abuse	NSDUH
Percent reporting need of alcohol treatment during the past year	NSDUH
Percent of adults reporting heavy alcohol use	BRFSS
Percent of adults reporting “too much to drink” before driving	BRFSS
Percent of youth alcohol use during pregnancy	PRAMS BVS
Percent of youth alcohol use before pregnancy	PRAMS
Percent of adults reporting daily alcohol use by an adult	BRFSS
Number of case sales	DOR
Per capita consumption of all beverages	AEDS
Per capita consumption of ethanol	AEDS
Number of communities with alcohol restrictions	AEDS
Number of alcohol distribution centers	AEDS
Number of sales of alcohol to minors	Alcohol Board
Quantity of alcohol transported to rural Alaska	DOR
Seized amounts of alcohol illegally transported/sold (bootlegged)	DO Public Safety

ILLICIT DRUG CONSUMPTION INDICATORS

Percent of youth reporting lifetime cocaine use	YRBS
Percent of youth reporting lifetime inhalant use	YRBS
Percent reporting 30-day marijuana use	YRBS NSDUH
Percent of youth reporting marijuana before age 13	YRBS
Percent of youth reporting lifetime heroin use	YRBS
Percent of youth reporting lifetime methamphetamine use	YRBS
Percent of youth reporting lifetime ecstasy use	YRBS
Percent of youth reporting lifetime injecting drugs	YRBS
Percent of youth reporting lifetime steroid use	YRBS
Percent reporting 30-day any illicit drug use other than marijuana	NSDUH
Percent reporting drug dependency or abuse	NSDUH
Percent reporting need drug treatment in the past year	NSDUH
Percent reporting lifetime injecting drugs for adults	NSDUH
Percent of youth reporting lifetime marijuana use	YRBS
Percent reporting illicit drug use during pregnancy	PRAMS
Daily drug use for Alaska	
Driving under the influence of illicit drugs	
Drug related personnel actions	
Percent reporting 30-Day inhalant use	NOT in YRBS

TOBACCO CONSUMPTION INDICATORS

Percent of youth reporting lifetime cigarette use	YRBS
Percent of youth reporting first cigarette before age 13	YRBS
Percent of youth reporting 30-Day cigarette use	YRBS BRFSS NSDUH
Percent reporting daily cigarette use	YRBS BRFSS
Percent of youth reporting 30-Day frequent cigarette use	YRBS
Percent of youth reporting cigarette use on school property	YRBS
Percent of youth reporting 30-Day cigar use	YRBS
Percent of youth reporting 30-Day smokeless tobacco use	YRBS
Percent of youth reporting smokeless tobacco use on school property	YRBS
Percent of youth reporting smoker who have tried to quit	YRBS
Percent of youth reporting 30-Day heavy cigarette use	YRBS
Percent of youth reporting prescription Use	YRBS
Percent reporting lifetime cigarette use	BRFSS
Percent reporting 30-Day tobacco use	NSDUH
Percent reporting cigarette use during pregnancy	PRAMS BVS
Percent reporting cigarette use before pregnancy	PRAMS
Number of cigarette sales per capita	SETD
Number of sales of smokeless tobacco	
Number of sales of nicotine replacement products	
Percent reporting greater than 100 cigarettes smoked	ATS
Percent reporting age of first use of cigarettes	ATS

Percent reporting cigarettes per day smoked	ATS
Percent reporting 30-Day smoking frequency assessment	ATS
Percent reporting cigarettes per day smoked	ATS
Number of clean indoor air acts initiated and passed in Alaska	
Public Health	
Traditional Vs Alternative Schools	
Percentage of Youth Reporting Lifetime Use of Alcohol	YRBS
Percentage of Youth Reporting Alcohol Use Before Age 13	YRBS
Percent of Youth Reporting Current Alcohol Use	YRBS
Percent of Youth Reporting Current Binge Drinking	YRBS
Percentage of Students Who Used Chewing Tobacco, snuff, or Dip on One or More of the Past 30 Days	YRBS
Percentage of Students Who Smoked a Whole Cigarette for the First Time Before Age 13 Years	YRBS
Percentage of Students Who Smoked Cigarettes on 20 or More of the Past 30 Days	YRBS
Percent of Youth Reporting Lifetime Marijuana Use	YRBS
Percent of Youth Reporting Marijuana Use Before Age 13	YRBS
Percent of Youth Reporting Current Marijuana Use	YRBS
Percent of Youth Reporting Lifetime Heroin Use	YRBS
Percent of Youth Reporting Lifetime Methamphetamine Use	YRBS
Percent of Youth Reporting Lifetime Ecstasy Use	YRBS
Percent of Youth Reporting Lifetime Cocaine Use	YRBS
Percent of Youth Reporting Current Cocaine Use	YRBS
Percentage of students who were offered, sold, or given an illegal drug by someone on school property during the past 12 months	YRBS
Percentage of students who used marijuana on school property one or more times during the past 30 days	YRBS

CONSEQUENCE INDICATORS

Number/rate per 100,000 of alcohol induced deaths	BVS
Number/rate per 100,000 of chronic liver disease / cirrhosis deaths	BVS
Number/rate per 100,000 of vehicle and traffic deaths	BVS
Number/rate per 100,000 of deaths due to motor vehicle crashes among children aged 14 and younger	BVS
Number/rate per 100,000 of injuries due to motor vehicle crashes among children aged 14 and younger	ATR
Number/rate per 100,000 of unintentional injury death	BVS
Number/rate per 100,000 of intentional injury death (homicide, suicide)	BVS
Number/rate of infant death (under 1 year of age) per 1,000 live births	BVS
Number/rate per 100,000 of homicide deaths	BVS
Number/rate per 100,000 of suicide deaths	BVS
Number/rate per 100,000 of undetermined deaths	BVS
Number/rate per 100,000 of smoking attributable death	BVS
Number/rate per 100,000 of lung cancer deaths	BVS
Number/rate per 100,000 of chronic lower respiratory diseases	BVS

Number/rate per 100,000 of cardiovascular deaths	BVS
Number/rate per 100,000 of drugs Induced death	BVS
Number/rate per 100,000 of viral hepatitis death	BVS
Number/rate per 100,000 of HIV deaths	BVS
Number/rate per 100,000 of malnutrition deaths	BVS
Number/rate per 100,000 of accidental firearm deaths	BVS
Rate of unintentional injuries	ATR
Number of hospitalized injuries associated with alcohol	ATR
Number of hospitalized injuries associated with drug use	ATR
Number/rate of alcohol related school suspensions	ADEED
Number/rate of alcohol related school expulsions	ADEED
Percent reporting driving under the influence of alcohol	YRBS BRFSS
Percent of youth reporting as passenger with a driver under the influence of alcohol	YRBS
Number/rate of deaths due to alcohol-related motor vehicle crashes	FARS
Number of deaths due motor vehicle crashes	FARS
Number of fatal motor vehicle crashes	FARS
Number/rate per 100,000 of alcohol related fatal motor vehicle crashes	FARS
Number/rate per 100,000 of alcohol related vehicle deaths	FARS
Number/rate per 100,000 of deaths caused by motor vehicle accidents (inc. pedestrians)	FARS
Percent of alcohol involved drivers in fatal crashes	FARS
Number/percentage of injury crashes that are alcohol-related	DOT
Number/percentage of non-fatal injuries that are alcohol-related	DOT
Percentage of property damage that is alcohol-related	DOT
Number of non-fatal injuries caused by motor vehicle crashes	DOT
Number of DUI arrests	UCR
Number of state/municipal/community liquor laws	UCR
Number of arrests for drunkenness	UCR
Percent of persons aged 12 and older meeting DSM_IV criteria for alcohol abuse or dependence	TEDS
Number of persons receiving treatment for alcohol dependency or alcohol-related & drug dependence disorders from state funded treatment facilities	TEDS
Percent of live births weighing less than 2,500 g.	BVS
Percent of singleton births weighing less than 2,500 g.	BVS
Percent of births weighing less than 1,500 g.	BVS
Percent of singleton births weighting less than 1,500 g.	BVS
Percent of adults reporting that they have been told they currently have asthma	BRFSS
Percent of adults reporting that ever been told they have asthma	BRFSS
Number of federal drug seizures - marijuana	DEA
Number of federal drug seizures - cocaine	DEA
Number of federal drug seizures - methamphetamine	DEA
DEA drug violation arrests	DEA
Number of EMS medical response - drug overdose	EMS
Number of EMS medical response - alcohol	EMS
Number of reported AIDs cases 13 years of age and older and	

annual rates per 100,000	HIV
Number of reported AIDs cases and annual rates per 100,001	HIV
Number of alcoholic psychoses diagnoses	HDD
Number of alcoholic dependence diagnoses	HDD
Number of alcohol related injuries	HDD,ED
Number of illicit drug related psychosis diagnoses	HDD,ED
Number of illicit drug related dependence diagnoses	HDD,ED
Number of illicit drug related injuries in ER populations	ED
Number of FASD - Alaska Birth Defects Registry	ABDR
Number of alcohol related arrests and seizures	ABADE
Number of controlled substance arrests/charges - cocaine	ABADE
Number of controlled substance seizures/purchases - cocaine	ABADE
Number of controlled substance arrests/charges - marijuana	ABADE
Number of controlled substance seizures/purchases - marijuana	ABADE
Number of controlled substance arrests/charges - methamphetamine	ABADE
Number of controlled substance seizures/purchases - methamphetamine	ABADE
Number of controlled substance seizures/purchases - clandestine labs	ABADE
Number/rate per 100,000 of drug related vehicle deaths	FARS
Number of recreational boating accidents per year	USCG
Number of recreational boating injuries per year	USCG
Number of recreational boating injuries with alcohol involvement	USCG
Number of recreational boating accidents with alcohol involvement	USCG
Number of recreational boating accidents with drug involvement	USCG
Number of fatal recreational boating accidents per year	USCG
Number of fatal recreational boating accidents with alcohol involvement	USCG
Number of fatal recreational boating accidents with drug involvement	USCG
Number of murder, manslaughter reported	UCR
Number of domestic violence incidents reported	UCR
Number of domestic violence arrests	UCR
Number of drug violations arrests	UCR
Number of controlled substance seizures/purchase - crack cocaine	UCR
Number of AST cocaine seizures	UCR
Number of AST cocaine cases	UCR
Number of controlled substance seizures/purchase - hashish	UCR
Number of controlled substance seizures/purchase - sinsemilla plants	UCR
Number of controlled substance seizures/purchase - marijuana plants	UCR
Number of controlled substance seizures/purchase - ditchweed/wild plants	UCR
Number of AST marijuana seizure	UCR
Number of AST marijuana cases	UCR
Number of AST hashish seizure	UCR
Number of AST hashish cases	UCR
Number of AST methamphetamine seizure	UCR
Number of AST methamphetamine cases	UCR
Number of AST clandestine labs seizures	ASB
Number of Alaska K12 alcohol related expulsions	ASB
Number of Alaska K12 alcohol related suspensions	ASB

Number of Alaska K12 drug related expulsions	ASB
Number of Alaska K12 drug related suspensions	DPS
Number of meth clandestine labs seizures	DPS
Number of federal drug seizures - labs – DEA, State, local	ABADE
Number of treatment facilities in Alaska	AK AIMS
Number of treatment beds funded by Alaska	AK AIMS
Number of referral of treatment for illicit drugs	AKAIMS
Number of referral of treatment for alcohol	AKAIMS
Number of referred treatment completion for illicit drugs	AKAIMS
Number of referred treatment completion for alcohol	AKAIMS
Number of court ordered compliance with treatment for alcohol	ASAP
Number of court ordered compliance with treatment for illicit drugs	ASAP
Number of alcoholic psychoses diagnoses - Tribal	RPMS
Number of alcoholic dependence diagnoses - Tribal	RPMS
Number of alcohol related injuries in ER populations - Tribal	RPMS
Number of illicit drug related psychosis diagnoses - Tribal	RPMS
Number of illicit drug related dependence diagnoses - Tribal	RPMS
Number of illicit drug related injuries in ER populations - Tribal	RPMS
Number of Medicaid paid treatment for alcohol	Medicaid
Number of Medicaid paid treatment for drug use	Medicaid
Occupational fatalities associated with alcohol use	OIS
Occupational Fatalities Associated with Drug Use	OIS
Violent Death Associated with Substance Abuse	VDRS

OTHER CONSUMPTION OR CONSEQUENCE ASSOCIATED INDICATORS

Number/rate per 100,000 of ten leading causes of mortality in AK	BVS
Number/rate per 100,000 of all death in Alaska	BVS
Number/rate per 100,000 of child deaths (under 18 years of age)	BVS
Number of adoptions of children with public child welfare agency involvement	BVS
Number/rate of teen births 18-19:	BVS
Number/rate of teen births 15-19:	BVS
Number/rate of teen births 15-17:	KC, BVS
Neonatal mortality rate per 1,000 live births	BVS, WCFH
Post-neonatal mortality rate per 1,000 live births	BVS, WCFH
Perinatal mortality rate per 1,000 live births plus fetal deaths	BVS, WCFH
Number of violent crimes reported	UCR
Number of property crimes reported	UCR
Number of larcenies reported	UCR
Number of rapes reported	UCR
Number of burglaries reported	UCR
Number of motor vehicle thefts reported	UCR
Number of murder, manslaughter reported	UCR
Number of robberies reported	UCR
Number of aggravated assaults reported	UCR

Number of rapes arrests	UCR
Number of robberies arrests	UCR
Number of aggravated assaults arrests	UCR
Number of drug manufacture violations	UCR
Number of drug possession violations	UCR
Number of alcohol charges for juvenile offenders	DJJ
Number of drug charges for juvenile offenders	DJJ
Number of alcohol referrals for juvenile offenders	DJJ
Number of drug referrals for juvenile offenders	DJJ
Persons incarcerated in juvenile detention facilities: rate per 100,000	DJJ
Number of substantiated allegations of abuse	DJJ, DOL
Percentage of students who had sexual intercourse	YRBS
Percentage of students who had sexual intercourse before age 13	YRBS
Percentage of students who had sexual intercourse with four or more people during their life	YRBS
Percentage of students who had sexual intercourse with one or more people during the last three months	YRBS
Of students who had sexual intercourse, the percentage who used a condom pills during last sexual intercourse	YRBS
Of students who had sexual intercourse, the percentage who used birth control pills during last sexual intercourse	YRBS
Percentage of students who received grades mostly of D's and F's during the past 12 months	YRBS
Percentage of children in foster care maltreated by foster care provider	OCS
Number of children with substantiated allegations of abuse	OCS
Number of children reported as abused and neglected and referred for investigation per 251) 100,000 children in population,	OCS
Number of child abuse and neglect facilities	OCS
Number of children that witness DV	OCS
Number of children that are maltreatmented	OCS, DSDS
Rate of children per 100,000 population who received preventive services	DHSS
Number of offenses against family and children	APSIN
Percentage of high school dropouts	ASB

Missing Data:

Daily drug use for Alaska
Lifetime injecting drugs for adults
Percent of persons aged 16+ reporting driving after having smoked marijuana or using other illicit drugs in the past month
Percent of women reporting the use of illicit drugs during pregnancy
Number of single nighttime crashes per 100,000 population aged 16 and older
Number persons discharged from hospital ER for alcohol related injuries (as per ICD-10 codes) per 100,000 population
Alcohol related personnel actions per 100,000 employees
Drug-related personnel actions per 100,000 employees

Number of persons discharged from hospitals for conditions related to tobacco use (as per ICD-10 codes) per 100,000 population
Number of deaths from each specific cause that is at least fractionally attributable to tobacco, per 100,000 population aged 15+

D

Appendix D: ICD-10 Codes for Causes of Death Associated with Substance Abuse

Cause of Death	ICD-10 Codes
Unintentional Injury	V01-X59, Y85-Y86
Suicide	U03, X60-X84, Y870
Homicide	U01-U02, X85-Y09, Y871
Chronic Liver Disease & Cirrhosis	K70, K73-K74
Alcohol-Induced	E244, F10, G312, G621, G721, I426, K292, K70, K860, R780, X45, X65, Y15
Drug-Induced	D521, D590, D592, D611, D642, E064, E160, E231, E242, E273, E661, F110-F115, F117-F119, F120-F125, F127-F129, F130-F135, F137-F139, F140-F145, F147-F149, F150-F155, F157-F159, F160-F165, F167-F169, F170-F175, F177-F179, F180-F185, F187-F189, F190-F195, F197-F199, G211, G240, G251, G254, G256, G444, G620, G720, I952, J702-J704, L105, L270-L271, M102, M320, M804, M814, M835, M871, R781, R782-R785, X40-X44, X60-X64, X85, Y10-Y14

E

Appendix E: Alaska Population Data

Table 1. Annual Components of Population Change, Alaska, 2000-2009

July 1 - June 30	End of Period Population	Population Change	Average Annual Rate of Change	Births	Deaths	Natural Increase	Net Migrants
2000-2001	632,200	4,667	0.74	9,980	2,934	7,046	-2,379
2001-2002	640,643	8,443	1.33	9,871	3,075	6,796	1,647
2002-2003	647,884	7,241	1.12	10,025	3,107	6,918	323
2003-2004	657,483	9,599	1.47	10,299	3,060	7,239	2,360
2004-2005	664,334	6,851	1.04	10,368	3,167	7,201	-350
2005-2006	671,202	6,868	1.03	10,656	3,163	7,493	-625
2006-2007	676,056	4,854	0.72	11,057	3,457	7,600	-2,746
2007-2008	681,977	5,921	0.87	11,285	3,505	7,780	-1,859
2008-2009	692,314	10,337	1.50	11,454	3,378	8,076	2,261

Source: U.S. Census Bureau and the Alaska Department of labor and Workforce Development, Research and Analysis Section. Http://labor.alaska.gov/research/pop/estimates/pub/popover.pdf

Table 2. Annual Components of Populations by Census Areas, Alaska, 2000-2009

	Number	Percent
TOTAL POPULATION	**683,142**	**100**
SEX AND AGE		
Male	355,726	52.1
Female	327,416	47.6
Under 5 years	52,030	7.6
5 to 9 years	48,382	7.1
10 to 14 years	49,382	7.3
15 to 19 years	49,878	7.9
20 to 24 years	54,223	8.7
25 to 34 years	59,571	14.2
35 to 44 years	97,084	14.1
45 to 54 years	96,196	15.7
55 to 59 years	106,926	6.3
60 to 64 years	43,235	4.1
65 to 74 years	27,981	4.3
75 to 84 years	13,707	2.0
85 years and over	4,244	0.6
Median age (years)	32.7	(X)
18 years and over	499,977	73.2
Male	261,423	52.3
Female	238,554	47.7
21 years and over	465,467	68.1

62 years and over	62,314	9.1
65 years and over	47,636	7.0
Male	22,568	47.4
Female	25,068	52.6

RACE

One race	632,510	92.6
White	467,650	68.5
Black or African American	25,161	3.7
American Indian and Alaska Native	91,939	13.5
Non-Alaska Native tribal groups	1,494	1.6
Asian	31,878	4.7
Asian Indian	665	0.1
Chinese	1,811	0.3
Filipino	18,110	2.7
Japanese	1,265	0.2
Korean	4,096	0.6
Vietnamese	1,253	0.2
Other Asian 1	4,678	0.7
Native Hawaiian and Other Pacific Islander	4,269	0.6
Native Hawaiian	1,031	0.2
Guamanian or Chamorro	165	0.0
Samoan	2,409	0.4
Other Pacific Islander 2	11,613	0.1
Some other race	11,613	1.7
Two or more races	50,632	7.4
White and Black or African American	5,755	0.8
White and American Indian and Alaska Native	28,466	4.2
White and Asian	5,856	0.9
Black or African American and American Indian and Alaska Native	1,440	0.2

Race alone or in combination with one or more other races 3

White	513,507	75.2
Black or African American	34,753	5.1
American Indian and Alaska Native	125,622	18.4
Asian	41,564	6.1
Native Hawaiian and Other Pacific Islander	6,741	1.0
Some other race	14,832	2.2

HISPANIC OR LATINO AND RACE

Total population	**683,142**	**100**
Hispanic or Latino (of any race)	39,661	5.8
Mexican	20,848	3.1
Puerto Rican	4,386	0.6
Cuban	740	0.1
Other Hispanic or Latino	13,687	2.0
Not Hispanic or Latino	643,481	94.2
White alone	448,329	65.6
Black or African American alone	24,347	3.6
American Indian and Alaska Native alone	90,047	13.2
Asian alone	31,253	4.6
Native Hawaiian and Other Pacific Islander alone	4,100	0.6
Some other race alone	766	0.1
Two or more races	44,639	6.5

RELATIONSHIP

Total population In households	661,243	100
Householder	243,779	35.5
Spouse	118,784	18.0
Child	216,740	32.8
Own child under 18 years	90,565	38.6
Other relatives	42,524	6.4

Under 18 years

Nonrelatives	48,416	7.3
Unmarried partner	18,801	2.8
HOUSEHOLDS BY TYPE		
Total households	**234,779**	**100**
Family households (families)	159,319	67.9
With own children under 18 years	82,275	35.0
Married-couple family	118,716	50.6
With own children under 18 years	56.253	24.0
Male householder, no wife present, family	14,085	6.0
With own children under 18 years	8,227	3.5
Female householder, no husband present, family	26,518	11.3
With own children under 18 years	17,795	7.6
Nonfamily households	75,460	32.1
Householder living alone	57,718	24.6
Householder 65 years and over	11,008	4.7
Households with individuals under 18 years	90,565	38.6
Households with individuals 65 years and over	33,389	14.2
Average household size	2.28	(X)
Average family size	3.37	(X)
HOUSING OCCUPANCY		
Total housing units	280,186	100
Occupied housing units	234,779	83.8
Vacant housing units	45,407	16.2
Homeowner vacancy rate	1.4	(X)
Rental vacancy rate	6.4	(X)
HOUSING TENURE		
Occupied housing units	234,779	100
Owner-occupied housing units	149,672	63.8
Renter-occupied housing units	85,107	36.2
Average household size of owner-occupied unit	2.97	(X)
Average household size of renter-occupied unit	2.55	(X)

Source: U.S. Census Bureau and the Alaska Department of labor and Workforce Development, Research and Analysis Section. Http://quickfacts.census.gov/qfd/states/02000lk.html

Table 3. Annual Laborforce, Employment, and Unemployment for Alaska 2000-2009

Calendar Year	Labor Force	Employment	Unemployment	Unemployment Rate
2000	319,002	299,324	19,678	6.2
2001	321,484	301,694	19,790	6.2
2002	328,385	305,112	23,273	7.1
2003	336,549	310,762	25,787	7.7
2004	339,859	314,753	25,106	7.4
2005	344,305	320,590	23,715	6.9
2006	349,919	327,109	22,810	6.5
2007	352,291	330,875	21,416	6.1
2008	357,458	334,399	23,059	6.5
2009	358,529	330,597	27,932	7.8

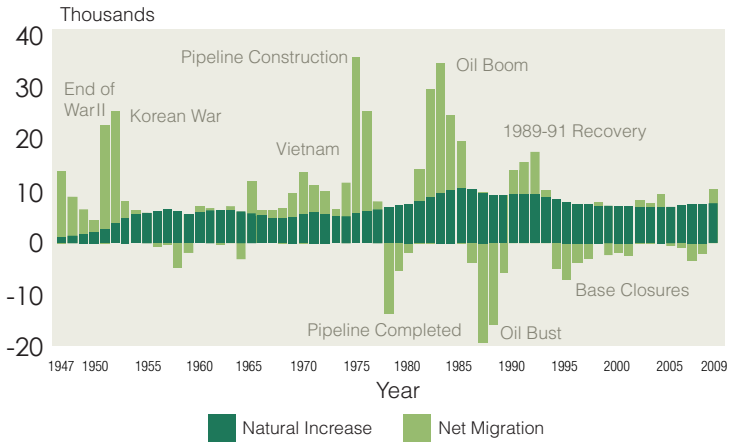
Source: Alaska Department of labor and Workforce Development, Research and Analysis Section.

Http://labor.alaska.gov/research/labforce/labforce.htm

Table 4. Labor Force, Unemployment and Employment Statistics, by Borough and Census Area, Alaska, 2005 and 2009

	Labor Force		Unemployment		Rate		Employment Rate	
	2005	2009	2005	2009	2005	2009	2005	2009
Statewide	**344,919**	**358,529**	**320,590**	**330,597**	**23,715**	**27,932**	**6.9**	**7.8**
Anchorage/Mat-Su MSA*	**185,631**	**195,709**	**174,658**	**181,866**	**10,973**	**13,843**	**5.9**	**7.1**
Municipality of Anchorage	148,927	153,347	140,752	143,290	8,175	10,057	5.5	6.6
Mat-Su Borough	36,704	42,362	33,906	38,576	2,798	3,786	7.6	8.9
Gulf Coast Region	**36,609**	**38,734**	**33,396**	**35,157**	**3,213**	**3,577**	**8.8**	**9.2**
Kenai Peninsula Borough	25,299	26,828	23,086	24,179	2,213	2,649	8.8	9.9
Kodiak Island Borough	6,051	6,583	5,551	6,109	500	474	8.3	7.2
Valdez-Cordova CA	5,259	5,323	4,759	4,869	500	454	9.5	8.5
Interior Region	**53,246**	**53,747**	**49,791**	**49,607**	**3,455**	**4,140**	**6.5**	**7.7**
Denali Borough	1,587	1,408	1,483	1,291	104	117	6.5	8.3
Fairbanks MSA*	45,214	45,870	42,577	42,602	2,637	3,268	5.8	7.1
Southeast Fairbanks CA	3,308	3,601	2,961	3,252	347	349	10.5	9.7
Yukon-Koyukuk CA	3,137	2,868	2,770	2,462	367	406	11.7	14.2
Northern Region	**10,751**	**12,224**	**9,562**	**11,151**	**1,189**	**1,073**	**11.2**	**8.8**
Nome Census Area	3,976	3,957	3,484	3,493	492	464	12.4	11.7
North Slope Borough	3,716	5,287	3,382	5,035	334	252	9.0	4.8
Northwest Arctic Borough	3,059	2,980	2,696	2,623	363	357	11.9	12.0
Southeast Region	**40,163**	**40,026**	**37,345**	**36,960**	**2,818**	**3,066**	**7.0**	**7.7**
Haines Borough	1,471	1,413	1,339	1,284	132	129	9.0	9.1
Juneau Borough	18,336	18,333	17,358	17,246	978	1,087	5.3	5.9
Ketchikan Gateway Borough	7,958	8,305	7,423	7,710	535	595	6.7	7.2
Pr. of Wales-Outer Ketchikan	2,566	2,378	2,230	2,014	336	364	13.1	15.3
Sitka Borough	4,741	4,631	4,478	4,341	263	290	5.6	6.3
Skagway-Hoonah-Angoon CA	1,844	1,791	1,599	1,526	245	265	13.3	14.8
Wrangell-Petersburg CA	2,927	2,862	2,632	2,562	295	300	10.1	10.5
Yakutat Borough	320	313	286	277	34	36	10.6	11.5
Southwest Region	**17,909**	**18,095**	**15,839**	**15,858**	**2,070**	**2,237**	**11.6**	**12.4**
Aleutians East Borough	1,076	1,129	973	1,017	103	112	9.6	9.9
Aleutians West Census Area	3,140	2,996	2,961	2,784	179	212	5.7	7.1
Bethel Census Area	7,084	7,011	6,179	6,017	905	994	12.8	14.2
Bristol Bay Borough	969	1,041	912	991	57	50	5.9	4.8
Dillingham Census Area	2,061	2,145	1,841	1,926	220	219	10.7	10.2
Lake & Peninsula Borough	1,039	1,085	963	996	76	89	7.3	8.2
Wade Hampton CA	2,540	2,688	2,010	2,127	530	561	20.9	20.9

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section
Http://labor.alaska.gov/research/labforce/labforce.htm



Appendix F: About Alaska[1]

Geography

- Alaska, the largest State in the Nation, is approximately one-fifth the size of the contiguous United States. Land area within the State comprises 586,412 square miles; water area comprises 86,051 square miles.
- The State is separated from the contiguous 48 states by 500 miles of Canadian territory; the closest point is in the State of Washington. Alaska is one of the two U.S. States not bordered by another state, Hawaii being the other. Alaska is thus an exclave of the U.S. that is part of the continental U.S. but is not part of the contiguous U.S.
- When superimposed over the 48 contiguous states, Alaska overlaps Texas, Oklahoma, Kansas, New Mexico, and Colorado; Alaska's westernmost to easternmost points would stretch from San Francisco, California, to Jacksonville, Florida.
- Distributed across the State are 297 villages, towns, cities with fewer than 2,500 persons, or outside any community; two-thirds of the communities have no road access to other communities or to the State's limited highway network (2100 miles).
- Alaska is administratively divided into "boroughs," as opposed to "counties." Whereas some states use a three-tiered system, state/county/township, Alaska only uses two tiers, state/borough. The function is the same. Owing to the state's low population density, most of the land is located in unorganized boroughs which, as the name implies, has no intermediate borough government of its own, but is administered directly by the state government. These unorganized boroughs were divided into 11 census areas beginning in the 1970.

Climate

- Alaska has unique climate conditions and seasonal daylight changes. Temperatures can range from as high as 100°F to as low as -80°F.
- Seasonal daylight in northern communities includes 24 hours of daylight in the summer months to no more than the edge of twilight in the winter.

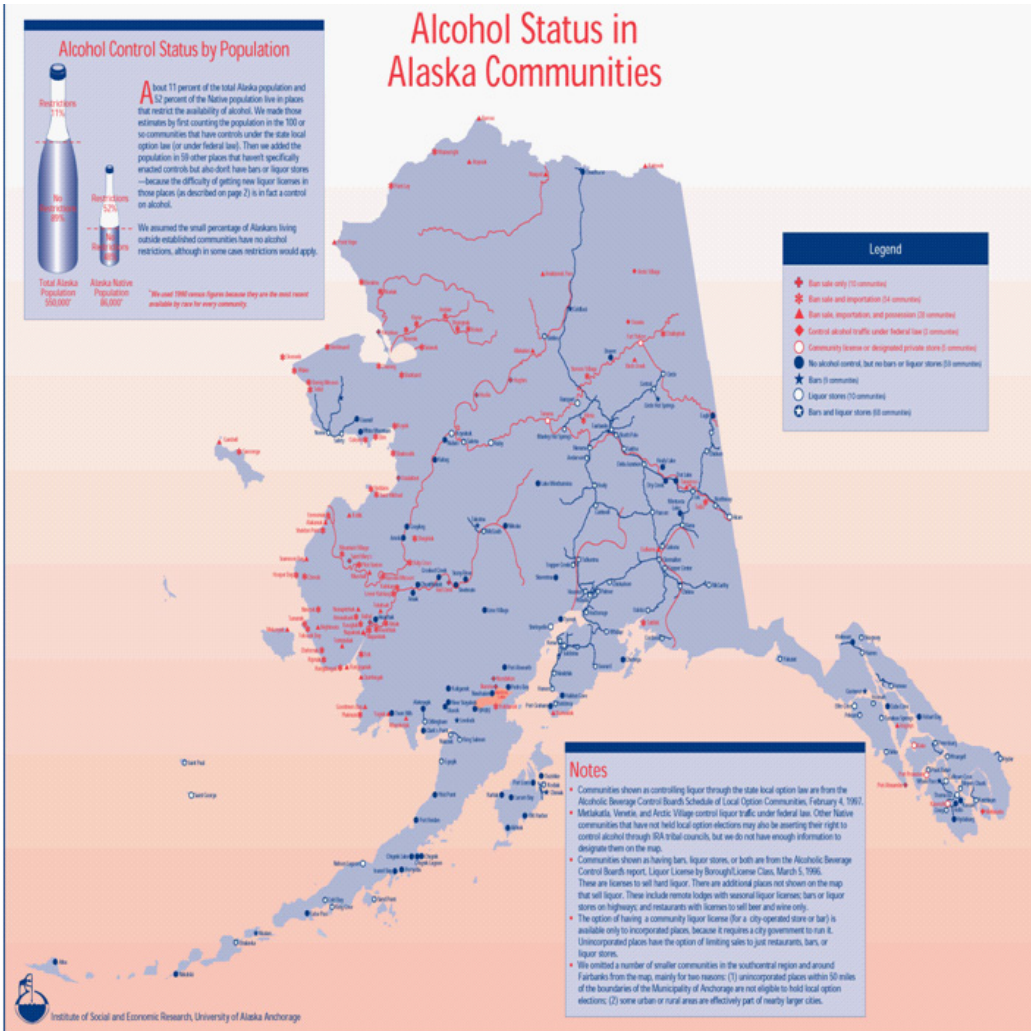
Population

- While the State population has increased six-fold since 1946 (Figure 4),

Alaska population density (excluding Anchorage) is slightly more than one person per square mile.

- As of July 1, 2009, Alaska has an estimated population of 692,314, which is approximately 0.2% on the national population. Alaska's population has increased 6,800, or 1.0%, from the prior year and an increase of 37,812, or 6.0%, since the year July 2000. The population distribution reflects that more than 75% of Alaskans reside in urban areas, including Anchorage (the State's largest city), Fairbanks and Juneau. These urban areas house 51.1% of the State's population.
- The median age for Alaskan males is 33.4 years; and for Alaskan females is 33.7 years, which is less than the national median age of 36.8 years. The median age for males in the United States is 35.5 years; and for females is 38.1 years. Of all states, Alaska has the smallest proportion of persons 65 years and over; 81% of Alaskans are less than 55 years of age. Seventy percent (70%) are 18 years and over.
- The population comprises several racial groups: 70.4% White; 16.2% Alaska Native/American Indian; 4.2% Asian; 3.8% Black, 0.6% Hawaiian/Pacific Islander, and 4.8% Multi-race. Hispanic ethnicity represents 5.0% of the overall state population. (Detailed population data for Alaska may be found in Appendix E.)

Alaska's expansive geography combined with its sparse populations, cultural diversity, and rural infrastructure limitations does lend to unique and challenging aspects for proper collection of data to assure accurate analysis.


Alcohol Status in Alaska Communities
Alcohol Control Status by Population
Restrictions 71%
No Restrictions 29%
Restrictions 52%
No Restrictions 48%
Total Alaska Population 550,000*
Alaska Native Population 86,000*
About 11 percent of the total Alaska population and 52 percent of the Native population live in places that restrict the availability of alcohol. We made those estimates by first counting the population in the 100 or so communities that have controls under the state local option law (or under federal law). Then we added the population in 59 other places that haven't specifically enacted controls but also don't have bars or liquor stores —because the difficulty of getting new liquor licenses in those places (as described on page 2) is in fact a control on alcohol.
We assumed the small percentage of Alaskans living outside established communities have no alcohol restrictions, although in some cases restrictions would apply.
*We used 1990 census figures because they are the most recent available by race for every community.
Legend
Ban sale only (10 communities)
Ban sale and importation (14 communities)
Ban sale, importation, and possession (28 communities)
Control alcohol traffic under federal law (3 communities)
Community license or designated private store (5 communities)
No alcohol control, but no bars or liquor stores (56 communities)
Bars (9 communities)
Liquor stores (10 communities)
Bars and liquor stores (60 communities)
Notes
• Communities shown as controlling liquor through the state local option law are from the Alcoholic Beverage Control Board's Schedule of Local Option Communities, February 4, 1997.
• Metlakatla, Venetie, and Arctic Village control liquor traffic under federal law. Other Native communities that have not held local option elections may also be asserting their right to control alcohol through IRA tribal councils, but we do not have enough information to designate them on the map.
• Communities shown as having bars, liquor stores, or both are from the Alcoholic Beverage Control Board's report, Liquor License by Borough/License Class, March 5, 1996. These are licenses to sell hard liquor. There are additional places not shown on the map that sell liquor. These include remote lodges with seasonal liquor licenses; bars or liquor stores on highways; and restaurants with licenses to sell beer and wine only.
• The option of having a community liquor license (for a city-operated store or bar) is available only to incorporated places, because it requires a city government to run it. Unincorporated places have the option of limiting sales to just restaurants, bars, or liquor stores.
• We omitted a number of smaller communities in the southcentral region and around Fairbanks from the map, mainly for two reasons: (1) unincorporated places within 50 miles of the boundaries of the Municipality of Anchorage are not eligible to hold local option elections; (2) some urban or rural areas are effectively part of nearby larger cities.
Institute of Social and Economic Research, University of Alaska Anchorage