

State Epidemiologic Profile on Substance Use, Abuse and Dependency

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

April 2008 (Revised 01/26/2009)

Section of Prevention and Early Intervention Services
Division of Behavioral Health
Department of Health and Social Services
State of Alaska

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Executive Summary

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

Data from on-going programs (such as the Behavioral Risk Factor Surveillance System, the Youth Risk Behavior Survey, and the National Survey on Drug Use and Health) were melded with state-based mortality, morbidity, and justice data. The resulting descriptive study provided a baseline epidemiological profile of substance use, abuse, dependence and consequences thereof.

This report focused on--first, collecting and consolidating data pertaining to substance consumption and consequence; second, analyzing and evaluating information for long-term use and statistically significant findings; third, prioritizing outcome measures use by health planners, health promotion/disease prevention program managers, policymakers and community advocates; and fourth, identify elements needing expanding surveillance and evaluation. In addition, the report initiated a data directory that provides a means 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/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

- During 2001-2005, the leading causes of premature death, including chronic liver disease, cirrhosis, homicide, suicide, and unintentional injury, were strongly associated with substance abuse
- Adults and Alaska Natives consistently had the highest age adjusted rate of death and experienced the highest rate of alcohol induced death and suicide. Highest rates were found in rural Alaska.
- The high rate of alcohol abuse in Alaska contributed significantly to the rate of serious non-fatal injury. The rate of hospitalized injuries involving alcohol among males was nearly doubled that of females.

Alcohol

- Ethanol consumption was consistently greater than national averages for all alcohol-containing beverages. Spirits were 1.5 times higher than national.
- Trends among Alaskan youth were: early alcohol use appeared more prevalent for males; binge alcohol use increasing with age where high school seniors reporting 2.4 times more binge drinking than freshmen; and 25% of high school students reported accompanying a driver who has been drinking alcohol.
- At least 50% of adults in Alaska reported current alcohol use.
- Prevalence of binge drinking in Alaska remained higher than the national rate for all ages over 18 years of age of with ages 18-34 years reported more binge drinking than older age groups.

Illicit Drugs

- Trends among Alaskan youth indicated nearly half of Alaska high school youth reported having ever used marijuana; one out of four youth in Grades 10, 11 and 12 reported current marijuana use.
- Except for marijuana, abuse of inhalants was reported more than cocaine, heroin, methamphetamine, PCP, and steroids.
- Beginning in 2001, the rate of drug induced death began to increase with a more accelerated rise in Alaska Natives, particularly Alaska Native females. Highest rates were noted in South Central communities of Alaska.
- Surveillance of methamphetamine in Alaska indicated quantities of methamphetamine seized between 2004 and 2006 markedly increased. Anchorage, Mat-Su, and Kenai Peninsula had the most significant problems with clandestine labs that produce quantities for local sale. Ketchikan, Juneau, and other Southeast Alaska communities had larger quantities imported for distribution.

Tobacco

- During 2001-2005, tobacco deaths were 14- to 22-fold higher than the alcohol, drug, and chronic liver disease/cirrhosis, respectively. 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.
- Trends among Alaskan youth indicated cigarette use continued to be prevalent. Alaska Native high school youth reported cigarette use as much as 6 times the rate of Non-Native youth. Reported cigarette use increased for Non-Native youth as grade increased.
- The percentage of Alaska Native adults who smoked was nearly twice as high as White adults who smoke.

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.
- A comprehensive database should be established, maintained and improved to capture departmentalized data to improve our understanding of factors associated with substance consumption and ensuing consequences to early and chronic use.

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 (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 are analyzed by age, gender, race/ethnicity, and grade to produce result tables and charts. The results are reported as numbers of events, rates on total population, and rates of specific populations. A combined 5-year period (2001-2005) is used when presenting mortality rates.

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 resources 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/>
- Juvenile Justice Data, Division of Juvenile Justice, Alaska Department of Health and Social Services. <http://health.hss.state.ak.us/djj/>
- U.S. Census. <http://www.census.gov/main/www/cen2000.html>
- Fatal Accident 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/datawh/ftpserve/ftpdata/ftpdata.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>
- Tobacco Use Behavior Research, Social Sciences and Humanities Library, University of California at San Diego. <http://ssdc.ucsd.edu/tobacco/sales/>
- Youth Risk Behavior Surveillance System (YRBSS).
<http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

Data Resources-State

- 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](http://www.hss.state.ak.us/dph/bvs/default.htm)
- 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/mchept/](http://www.epi.hss.state.ak.us/mchept/)
- Tobacco Tax Program, Tax Division Programs, Alaska Department of Revenue. [Http://www.tax.state.ak.us](http://www.tax.state.ak.us)
- Alaska Uniform Crime Reporting (UCR) Program, Criminal Records and Identification Bureau, Division of Statewide Services, Alaska Department of Public Safety. [Http://www.dps.state.ak.us/UCR/](http://www.dps.state.ak.us/UCR/)
- Alaska Youth Risk Behavior Survey (YRBS) , 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/school/YRBS.htm](http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm)
- 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/](http://www.hss.state.ak.us/dph/chronic/hsl/brfss/)
- Alaska Populations Estimates and Overview, Research and Analysis Section, Alaska Department of Labor. [Http://almis.labor.state.ak.us/](http://almis.labor.state.ak.us/)
- 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](http://www.hss.state.ak.us/dph/chronic/tobacco/PDF/Tobacco_Facts.pdf)

Data Limitations

Many agencies and organizations publish annual summaries of surveys 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 2001 through 2005 to ensure that data was available from all data sources for comparison and data collected provided a statistically valid statewide assessment. 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 have been recomputed based on revised populations that are 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 are 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 is commonly used to measure mortality. Since the age composition of the population can greatly influence the crude death rate, age adjustment is used in mortality statistics. Beginning in 1999, the U.S. and the Alaska Bureau of Vital Statistics began using the year 2000 standard population for age adjustment.

Some data has limited geographical information collected. When borough and census areas are not available, information is present by regions.

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

Under current Alaska statutes, all deaths are reviewed by the Medical Examiner's Office. While the Medical Examiner's Office does screen for toxic substances, however a standardized panel for substances of abuse is not done on all decedents.

The YRBS has been administered in Alaska five times, 1995, 1999, 2001, 2003, 2005 and 2007. Weighted (representative) data were collected in 1995 and 1999, 2003 and 2007, resulting in published reports. In 2001 the YRBS was not administered in Anchorage; and in 2005 the YRBS was not certified for use in Alaska due to limited sample size of participants in the survey. The most recent year of state data (2007) was incorporated into this report.

Introduction

Purpose

The purpose of this project is to establish a State Epidemiological Outcomes Workgroup (SEOW) that will be responsible for the collection, analysis, and the reporting of substance use incidence, prevalence and related data. The SEOW has developed a clear process for collecting and reporting on the federal Substance Abuse and Mental Health Services Administration (SAMHSA) National Outcome Measures (NOMs) related to substance use, abuse and dependency prevention. As a result of the SEOW process, an Epidemiological Profile for alcohol, marijuana and other illicit drugs, and tobacco has been developed. The profile summarizes information from several established sources for use in prevention/intervention planning, monitoring, and evaluation and provides recommendation for other data collection and surveillance to improve SEOW process.

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. This process will result in the development and implementation of the Center's Strategic Prevention Framework (SPF).

The Strategic Prevention Framework 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



Alaska’s Epidemiological Outcomes Workgroup is completing Step 1, Assessment—a cross-discipline, population-based review of alcohol, tobacco and other drug use statistics to better understand their impact on the health of Alaska and to guide the development of a successful strategic plan of action to prevent and improve these conditions.

When the State Epidemiological Outcomes Workgroup (SEOW) contract was awarded to the Alaska Department of Health and Social Services, Division of Behavioral Health, a small internal committee formed to identify the next steps and to discuss staffing needs and suggestions for the SEOW membership.

The role of the Workgroup is to assist in developing an Alaska Epidemiological Profile on Substance Use, Abuse and Dependency by--

1. identifying available data across disciplines;
2. helping to design the focus of the Profile to be most useful for the State of Alaska and the end-users; and
3. providing a critical eye as we uncover the core issues, the root causes and the critical areas of concern that most impact our state’s overall health and well-being in relation to substance use, abuse and dependency.

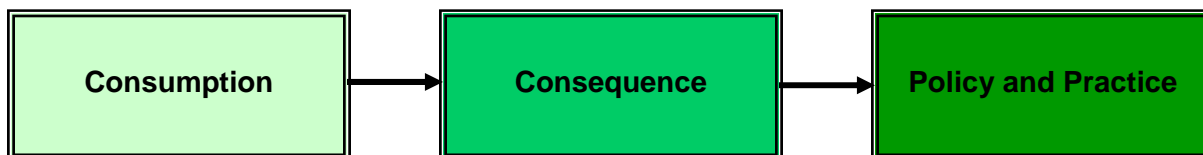
SEOW Selection Process

Members of the SEOW (See Appendix A) were invited to be part of the epidemiologic process based upon their knowledge of and ability to work with substance abuse data. The established group provided a blend of disciplines and agencies with a combined knowledge of data, research and program experience. Appendix A lists the Alaska SEOW membership and their respective agency.

How This Report Was Prepared

The SPF diagram (Figure 2) shows the relationship between substance-related problems and the policies, practices, and programs.

Figure 2. SPF SIG Diagram



The first and most critical step in this diagram is to assess consumption and consequence data of abuse substances in order to identify 1) data issues and needs, and 2) to use analyzed data to prioritize targeted prevention activities and intervention.

At the first meeting of the SEOW group, the need for better, more comprehensive data to truly show the impact of alcohol, tobacco and other drug use and abuse on the overall health of Alaska was emphasized. The importance of having a comprehensive and integrated compilation of data across disciplines will foster better advocacy for resources to continue the work of preventing, intervening, treating and providing long-term recovery services to individuals across Alaska who are impacted by substance abuse.

The SEOW group discussions encompassed what kinds of data might be gathered for a baseline assessment and its availability, such as:

- ❖ Number of birth mothers using alcohol/drugs at time of delivery
- ❖ Number of clients currently receiving substance abuse services (Medicaid, state-funded services and private pay)
- ❖ Number of individuals needing but not receiving substance abuse services
- ❖ Number of clients being served by state-funded services vs. private pay services
- ❖ Number and type of faith-based services and providers
- ❖ Number of tribal services and number of clients using services

Possible data sources were identified along with a contact list for the agencies responsible for maintaining the potential databases (See Appendix B) was developed along with an outline of possible connections and overlaps of surveillance data.

In addition to this initial identification and assessment of potential substance abuse-related data sources, the workgroup approved the development of a data directory that could function as a roadmap for future research needs. The data directory entries would include:

- ❖ Time span; initiation of surveillance
- ❖ Consistency of data collection
- ❖ Data definitions
- ❖ Population specificity
- ❖ Retention plan long-term for data
- ❖ Short-term “snapshot”
- ❖ Barriers/restrictions to data access
- ❖ Agency contact information

During the second meeting, the workgroup discussed the breadth of potential indicators (See Appendix C) and the universal use of the substance abuse epidemiological profile. While the overall goal is to reduce substance abuse, identifying the individual and environmental factors leading to initial use and chronic abuse behavior (pre-, early, chronic, and post-abuse cycles) was deemed essential to evaluating consumption and consequence measures as indicators for abuse and dependency.

A model based on four life domains (productivity, security, social connectedness, and health and the environmental influences) was developed by the workgroup members (See Appendix D). These domains were used to organize factors leading to initial and chronic substance abuse. These factors were:

- Alcohol and drug mortality
- Initial use of alcohol, drugs, and tobacco and consuming behavior related to alcohol and drugs
- Minor consuming and possession arrests and convictions related to alcohol and drugs
- Adult sales of alcohol and tobacco
- Adult consuming behavior related to alcohol and alcohol
- Arrests and convictions for alcohol, drug, and crimes having high correlation to alcohol and drugs
- Referral for alcohol and/or drug treatment
- Treatment bed availability and accessibility
- Domestic, family, and intimate partner violence reports and arrests

- Intentional and unintentional injury
- Graduation, employment/unemployment, population migration, and homelessness/poverty rates
- Social and individual health and wellness rates

The working group then applied identified sources of information from national and state agencies and organization and other unique data sources. The purpose of the exercise helped to 1) ensure availability of datasets for use/consumption, consequence, and contributory factors and 2) evaluate longevity of the measures as useful indicators of substance abuse and prevention activities.

The SEOW members then assisted the lead epidemiologist by providing links to datasets, summary data analysis and annual reports. Besides descriptive analyses of the individual datasets, the final epidemiologic profile report includes information gathered from analyses provided, report materials and other summary information currently available. These data and reports can be accessed using the Data Resource information listed at the front of this report.

About Alaska

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.

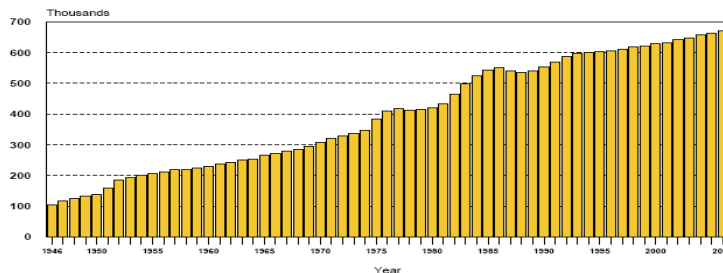
Climate

- 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

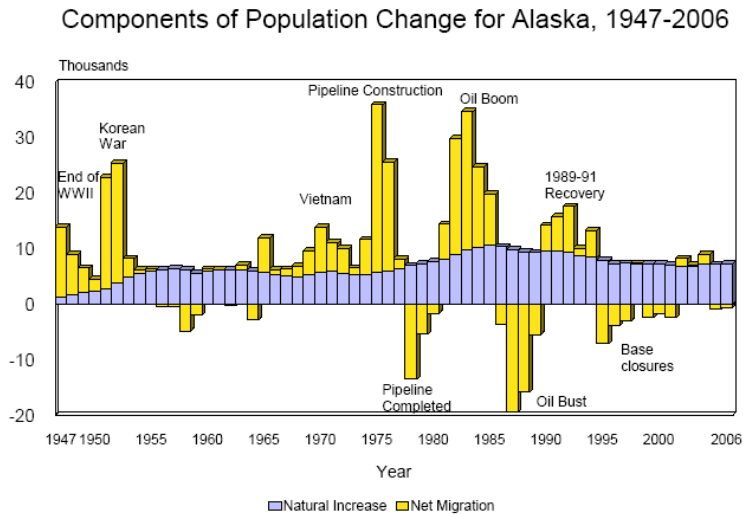
- While the State population has increased six-fold since 1946, Alaska population density (excluding Anchorage) is less than one person per square mile. The population distribution reflects that more than 70% of Alaskans reside in urban areas with Anchorage (the State's largest city) having 42% of the State's population.

Alaska Population Trends
1946-2006



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit.

- As of June 2006, Alaska has an estimated population of 670,053, 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.
- As of June 2006, a natural increase since the last census of 7,310 people (10,258 births minus 2,948 deaths). Alaska experienced a small shift in migration, with 40,547 migrating in and 40,633 migrating out. Population growth has largely occurred in Anchorage, Fairbanks, and Mat-Su boroughs.



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit.

- The current median age for Alaskan males is 33.0; and for Alaskan females is 33.1 years. The current median age for males in the United States is 36 years; and for females is 37.2 years. Of all states, Alaska has the smallest proportion of persons 65 years and over; nearly 90% of Alaskans are less than 55 years of age. Fifty-eight percent are 18 years and over.
- The population comprises several racial groups: 71% White; 16% Alaska Native/American Indian; 4% Asian; 3% Black, 0.5% Hawaiian or Pacific Islander, and 5% multi-race. Hispanic ethnicity represents 4% 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. Therefore, rates/ratios for less than 5 events were not calculated. Rates/ratios for less than 20 events should be evaluated and used with caution.

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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. Juvenile drug and alcohol charges per treatment referral were increasing. Specific data pertaining to the prevalence of alcohol associated in arrests and convictions of adults was not readily available.

Data Analysis

Data on alcohol sales and consumption was provided through Alcohol Epidemiologic Data System (AEDS), the Behavioral Risk Factor Surveillance System (BRFSS), the Youth Risk Behavior Survey (YRBS), and National Survey on Drug Use and Health (NSDUH). 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

Alcohol Epidemiologic Data System (AEDS)

Ethanol consumption was consistently greater than national averages for all alcohol-containing beverages. While all alcohol beverages were higher than national statistics, spirits were 1.4 higher (Table 1; Chart 1). Currently, 135 communities have some restriction that prohibits alcohol sales and possession (Appendix F). Of these, one-third were "dry" communities having a ban of possession (Chart 2), which may contributed to lower age-adjusted rates of serious injury resulting from assault, motor vehicle collisions and other causes. In addition, dry communities with a local police presence had a lower age-adjusted rate of serious injury caused by assault.

Table 1. Trends in Ethanol Consumed Per Capita*, Alaska

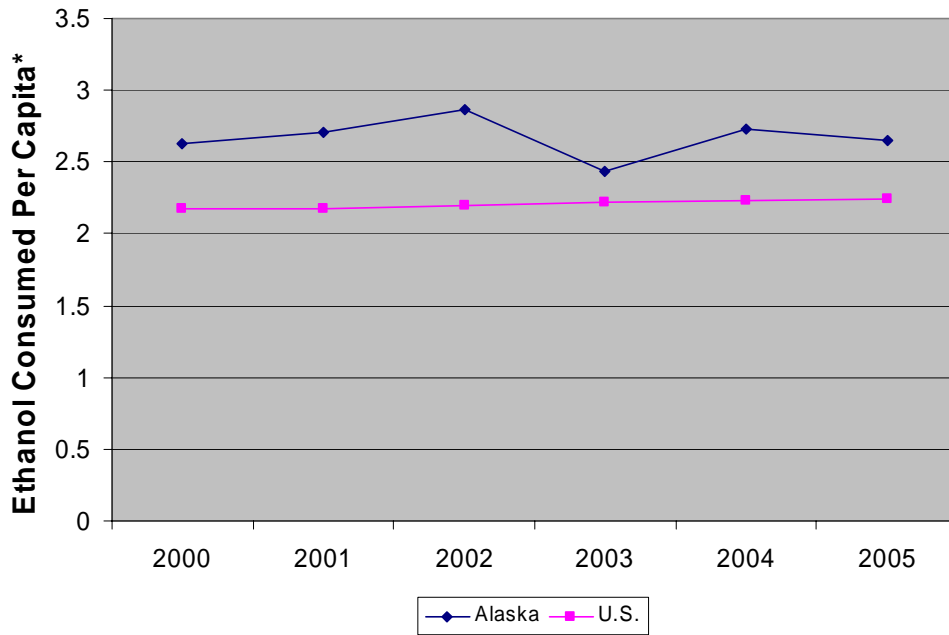
Beverage Type	1999	2000	2001	2002	2003	2004	2005	U.S. 2005
Beer	1.44	1.34	1.34	1.36	1.27	1.32	1.24	1.19
Spirits	0.98	0.92	0.97	1.08	0.79	0.96	0.99	0.70
Wine	0.39	0.37	0.40	0.42	0.37	0.45	0.43	0.36

*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.¹

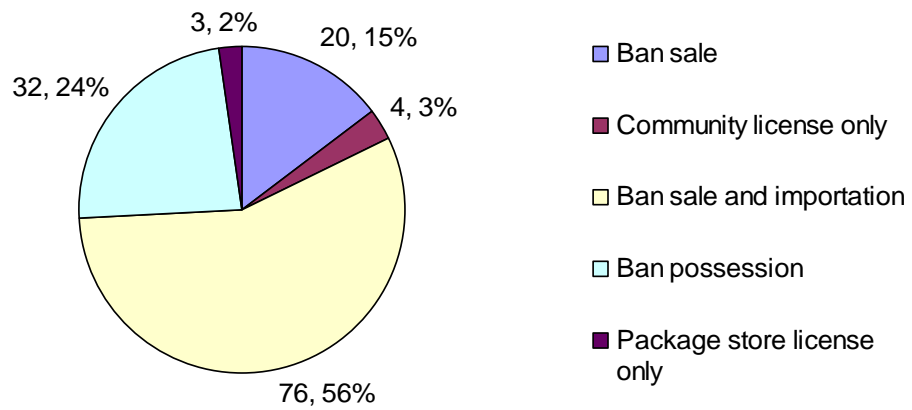
¹ [Http://pubs.niaaa.nih.gov/publications/surveillance73/CONS03.htm](http://pubs.niaaa.nih.gov/publications/surveillance73/CONS03.htm)

Chart 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

Chart 2. Communities with Alcohol Restrictions, Alaska, 2006, N=135



Youth Risk Behavior Survey (YRBS)

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.
- Episodic heavy (binge) alcohol use was defined as having five or more drinks within a couple of hours.

YRBS results indicated a sustained long-term decline in initial and episodic heavy drinking (binge drinking). The prevalence of early use of alcohol among Alaska high school youth was higher among males than females (Table 2); however overall prevalence appeared to decline (Chart 3) and remain at and below national results. In 2007, 40% of Alaska high school youth reported having had at least one drink in the past 30 days; 26% of high school youth reported episodic heavy drinking. Alcohol use was more frequently reported by youths between 16 and 17 years of age. High school seniors were 2.3 times more likely to report binge drinking than their freshman cohort in 2003 and 2007; a 20% decline from 1995 (Chart 4).

Table 2. Trends in Alcohol Use Among Youth, by Gender, Alaska YRBS

		1995	1999	2003	2007	U.S. 2005	U.S. 2007
Female	% Alcohol Before 13	34.1	29.7	20.4	16.3	22	20.0
	% Episodic Heavy Alcohol Use	27.2	32.6	23.4	23.9	23.5	24.1
Male	% Alcohol Before 13	39.1	37.1	25.6	24.0	29.2	27.4
	% Episodic Heavy Alcohol Use	35.0	35.1	29.1	27.3	27.5	27.8

Chart 3. Trends in Youth Reporting Alcohol Use Before Age 13, by Grade, Alaska YRBS

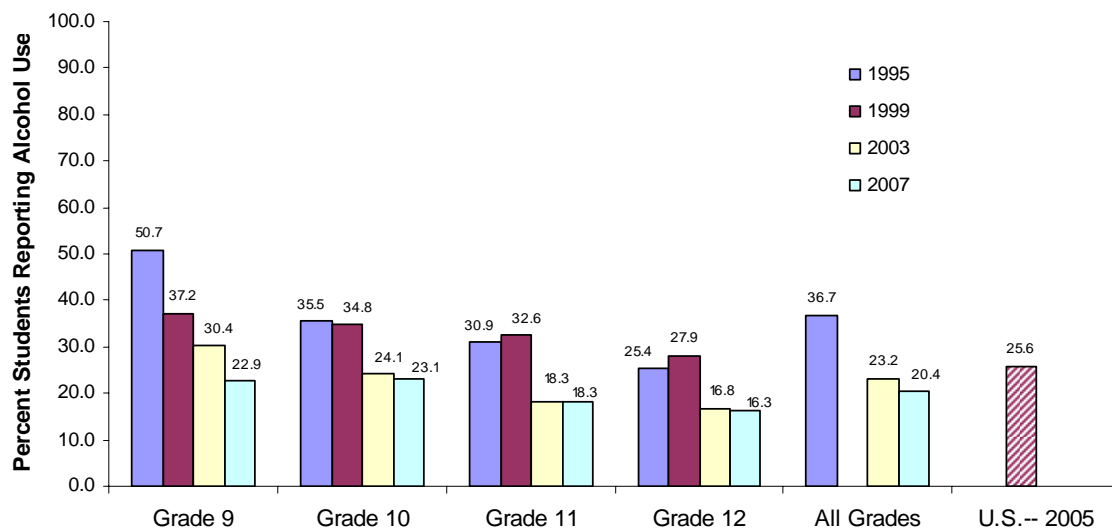
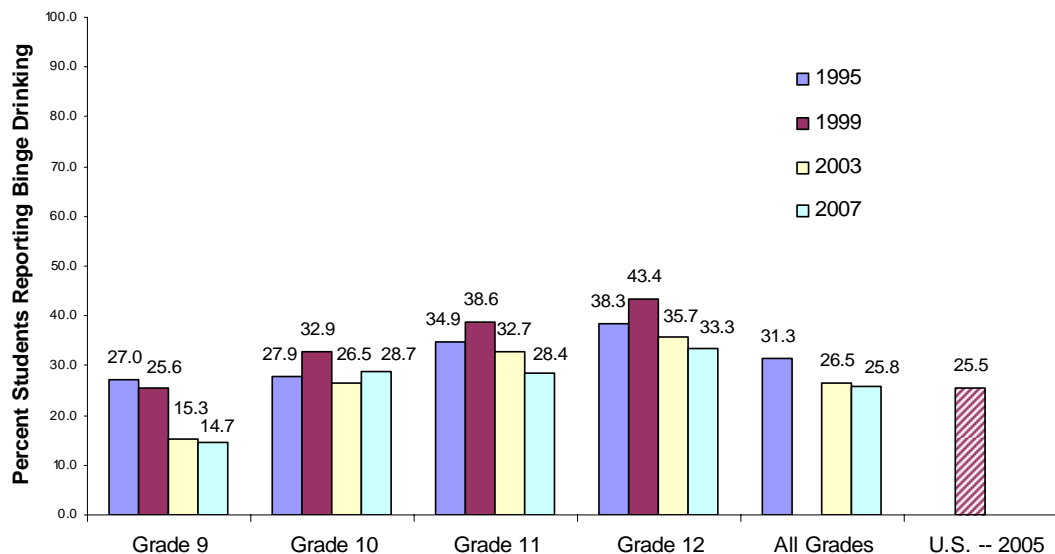


Chart 4. Trends in Youth Reporting Binge Drinking, by Grade, Alaska YRBS



Behavioral risk Factor Surveillance System (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.

BRFSS results indicated over 60% of adults in Alaska reported current alcohol use with no significant change among males and a slight decline of use among females from 2001 to 2005. Both males and females reported a slightly higher current alcohol use than the national average. The prevalence of binge alcohol use was 2.5-fold higher for males than females. A slight difference was found between males and females for heavy alcohol use (Table 3).

Table 3. Trends in Alcohol Use Among Adults, by Gender, Alaska BRFSS

		2001	2002	2003	2004	2005	U.S. 2005
Female	% Binge Alcohol Use	11.0	10.9	11.7	8.7	9.7	7.0
	% Current Alcohol Use	56.3	55.2	57.0	52.3	52.0	46.0
	% Heavy Alcohol Use	5.5	5.2	6.3	4.7	4.2	4.2
Male	% Binge Alcohol Use	24.8	25.2	24.7	23.4	24.9	21.9
	% Current Alcohol Use	66.4	66.8	66	62.9	66.8	61.4
	% Heavy Alcohol Use	6.1	6.9	7.9	5.5	5.9	6.2

According to the 2005 BRFSS report, results indicate 18% of adults surveyed reporting binge drinking for all ages over 18 years of age. Ages 18 and 34 years reported higher rates than older age groups, where prevalence was highest for young adults (age 18 to 20 years). Current alcohol consumption by Alaskan between the ages of 21 and 54 years appeared to be equally prevalent and less prevalence in younger and in aging populations. Report of heavy alcohol use has least prevalent (Table 4).

Table 4. Trends in Alcohol Use Among Adults, by Age Group, Alaska BRFSS

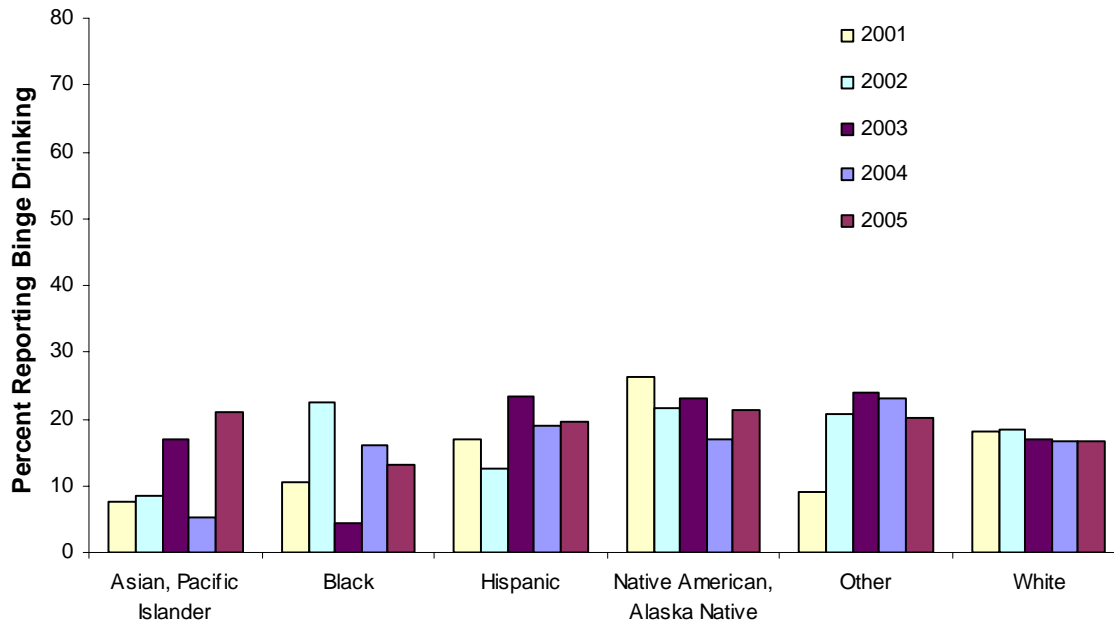
		2001	2002	2003	2004	2005	U.S. 2005
Ages 18 thru 20	% Binge Alcohol Use	15.6	25.8	22.1	9.4	31.2	19.5
	% Current Alcohol Use	38.5	39.9	45.0	34.3	48.1	40.2
	% Heavy Alcohol Use	6.0	4.8	9.3	1.5	6.3	6.1
Ages 21 thru 29	% Binge Alcohol Use	31.6	28.9	26.0	30.1	28.3	26.0
	% Current Alcohol Use	76.2	73.0	65.0	62.1	65.6	61.2
	% Heavy Alcohol Use	5.7	8.4	10.1	6.2	7.3	7.6
Ages 30 thru 34	% Binge Alcohol Use	24.0	18.5	22.6	21.1	20.1	19.1
	% Current Alcohol Use	65.9	55.8	65.8	71.2	60.7	59.1
	% Heavy Alcohol Use	4.5	3.2	5.7	5.1	6.5	4.8
Ages 35 thru 54	% Binge Alcohol Use	16.5	17.1	18.5	15.5	15.4	14.6
	% Current Alcohol Use	62.1	64.4	66.5	58.7	63.4	57.5
	% Heavy Alcohol Use	6.0	6.8	7.1	5.0	4.5	5.1
Ages 55 thru 64	% Binge Alcohol Use	6.0	11.3	12.2	10.6	11.5	7.6
	% Current Alcohol Use	56.5	54.5	56.7	51.6	57.2	50.3
	% Heavy Alcohol Use	5.8	4.3	5.0	6.1	4.5	4.4
Ages 65 and over	% Binge Alcohol Use	6.7	6.2	5.8	3.0	5.2	3.3
	% Current Alcohol Use	42.4	49.0	44.7	50.3	42.7	40.5
	% Heavy Alcohol Use	4.0	3.5	3.8	4.3	3.3	3.3

Report of binge drinking was consistently higher than reported nationwide prevalence. In contrast, prevalence of current alcohol use appeared highest among White, Hispanic, and Other races. In regards to heavy alcohol use, results were variable over the time that the survey was administered and should be interpreted with caution (Table 5; Chart 5).

Table 5. Trends in Alcohol Use Among Adults, by Race and Ethnicity, Alaska BRFSS

		2001	2002	2003	2004	2005	U.S. 2005
Asian, Pacific Islander	% Binge Alcohol Use	7.5	8.6	17.0	5.4	21.0	7.6
	% Current Alcohol Use	48.4	48.5	49.8	25.0	40.5	45.2
	% Heavy Alcohol Use	1.4	1.2	4.3	1.9	2.2	2.5
Black	% Binge Alcohol Use	10.6	22.5	4.3	16.1	13.0	9.8
	% Current Alcohol Use	47.8	72.8	65.8	42.9	31.6	42.3
	% Heavy Alcohol Use	5.0	7.8	1.2	4.5	N/A	3.5
Hispanic	% Binge Alcohol Use	16.8	12.5	23.5	19.0	19.5	16.9
	% Current Alcohol Use	59.1	62.6	56.4	46.5	56.8	47.5
	% Heavy Alcohol Use	4.7	4.9	5.7	6.5	0.6	5.2
Native American, Alaska Native	% Binge Alcohol Use	26.2	21.7	23.0	16.9	21.3	17.4
	% Current Alcohol Use	50.5	47.5	44.1	39.5	43.5	45.3
	% Heavy Alcohol Use	8.4	4.0	7.6	4.1	6.2	7.3
Other	% Binge Alcohol Use	9.1	20.7	24.0	23.1	20.1	11.9
	% Current Alcohol Use	44.9	69.4	66.6	81.4	62.7	49.9
	% Heavy Alcohol Use	N/A	3.3	10.3	5.6	14.8	4.9
White	% Binge Alcohol Use	18.0	18.3	17.0	16.7	16.7	14.5
	% Current Alcohol Use	65.2	64.2	65.2	63.3	64.5	56.9
	% Heavy Alcohol Use	6.1	7.0	7.1	5.5	4.9	5.4

Chart 5. Trends in Adults Reporting Binge Alcohol Use, by Race and Ethnicity, Alaska BRFSS



National Survey on Drug Use and Health (NSDUH)

Definitions of alcohol use:

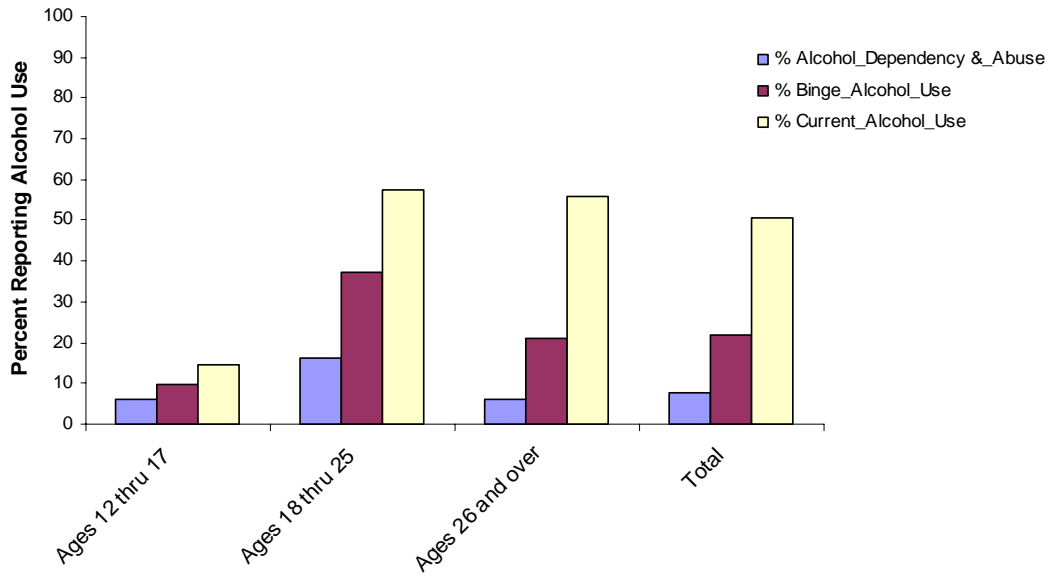
- Current alcohol use was defined as any reported use within the past 30 days.
- Heavy alcohol use was defined as having more than five or more drinks on the same occasion (at the same time or within a couple of hours of each drink) on each of 5 or more days in the past 30 days.
- Binge alcohol use was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

NSDUH results indicated 15% of Alaskan youth reported alcohol use and 10% of youth reported binge drinking. Because alcohol can be legally purchased at 21 years of age, a lower prevalence was expected in this age group. There was no significant difference found in prevalence of alcohol dependency/abuse, alcohol use, and treatment from results of the 2003-2004 survey (Table 6; Chart 6).

Table 6. Trends in Reported Alcohol Use, by Age Group, Alaska NSDUH

		2003-2004	2004-2005	U.S. 2004-2005
Ages 12 thru 17	% Alcohol Dependency/Abuse	5.7	6.0	5.8
	% Binge Alcohol Use	11.4	9.6	10.5
	% Current Alcohol Use	16.0	14.7	17.1
	% Needing Treatment in Past Year	5.2	5.7	5.5
Ages 18 thru 25	% Alcohol Dependency/Abuse	16.3	16.1	17.5
	% Binge Alcohol Use	39.1	37.3	41.5
	% Current Alcohol Use	57.8	57.4	60.7
	% Needing Treatment in Past Year	15.8	15.7	16.9
Ages 26 and over	% Alcohol Dependency/Abuse	6.2	6.1	6.3
	% Binge Alcohol Use	20.1	21.0	21.1
	% Current Alcohol Use	53.9	55.7	54.0
	% Needing Treatment in Past Year	5.6	5.8	5.9
All Ages	% Alcohol Dependency/Abuse	7.4	7.5	7.7
	% Binge Alcohol Use	21.5	21.8	22.7
	% Current Alcohol Use	49.3	50.6	51.1
	% Needing Treatment in Past Year	7.3	7.2	7.3

Chart 6. Reported Alcohol Use, by Age Group, Alaska NSDUH, 2004-2005



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. Marijuana use was the most commonly reported drug of abuse. Juvenile drug and alcohol arrests had more than tripled from 1,031 in 2000 to 3,580 in 2005.

In a 1999 National Institute of Justice survey, 54% of arrestees in Anchorage tested positive for illicit drugs, where cocaine and marijuana were identified most often. Less than 5% of tests were positive for opiates, methamphetamine, and PCP.

Data Analysis

Data on illicit drug use was provided through the Youth Risk Behavior Survey (YRBS). Most national averages were available for most recent year comparison.

Youth Risk Behavior Survey (YRBS)

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.

YRBS results indicated nearly 45% of Alaska high school youth reported having ever used marijuana, which is lower than previously reported yet still higher than nationwide prevalence. One-fifth of youth surveyed reported current marijuana use with slightly higher prevalence among males and no significant change between grades 10-12. While report of ever using cocaine and marijuana was more prevalent among males, the report of ever using inhalants was more prevalent among females (Tables 1 and 2; Chart 1). Results from the 2007 YRBS indicated lifetime (ever used) marijuana use was most prevalent followed by abuse of inhalants and cocaine. Other drug use reported included ecstasy (7.5%), methamphetamines (4.6%), steroids (3.3%), substances injected (2.1%), and heroin (1.6%), of which no significant difference in prevalence was found.

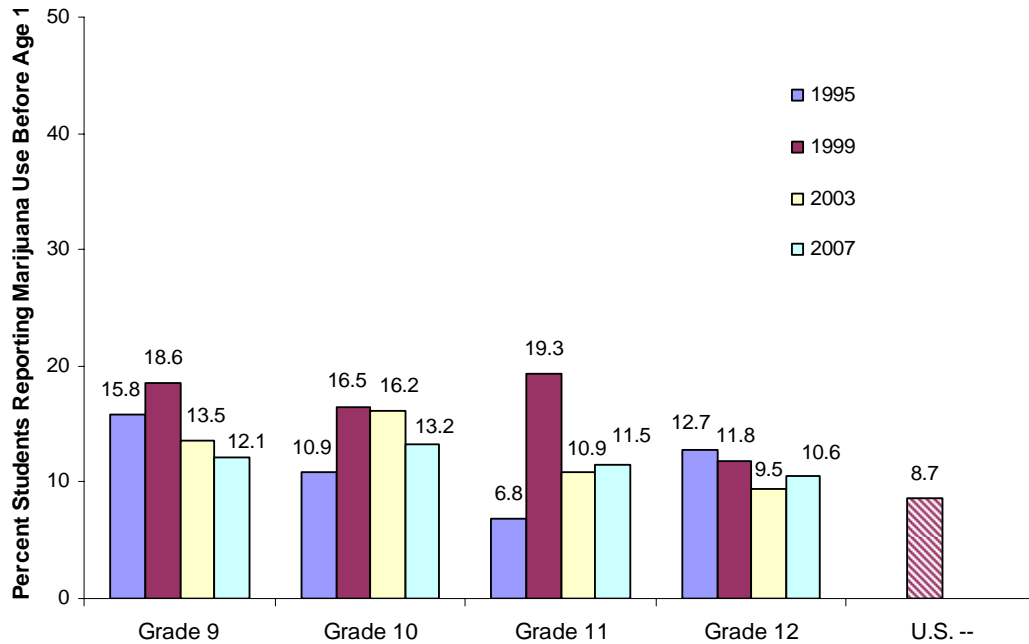
Table 1. Trends of Illicit Drug Use Among Youth, by Gender, Alaska YRBS

		1995	1999	2003	2007	U.S. 2005	U.S. 2007
Female	% Ever Used Cocaine	6.4	8.4	5.2	6.6	6.8	7.8
	% Ever Used Inhalants	20.9	15.7	10.4	16.7	13.5	12.4
	% Current Marijuana Use	24.9	27.4	21.2	18.9	18.2	21.4
	% Marijuana Before 13	10.3	14.6	9.9	9.5	6.3	11.2
Male	% Ever Used Cocaine	9.7	8.5	7.7	8.7	8.4	6.5
	% Ever Used Inhalants	23.4	13.1	9.9	12.3	11.3	14.3
	% Current Marijuana Use	32.1	32.8	25.9	22.0	22.1	16.9
	% Marijuana Before 13	13.2	18.7	15.8	14.1	11.0	5.2

Table 2. Trends of Illicit Drug Use Among Youth, by Grade, Alaska YRBS

		1995	1999	2003	2007	U.S. 2005	U.S. 2007
Grade 9	% Ever Used Cocaine	6.6	5.4	4.0	6.0	6.0	4.8
	% Ever Used Inhalants	25.2	15.5	7.3	13.6	14.1	15.0
	% Current Marijuana Use	27.8	22.2	17.5	16.9	17.4	14.7
	% Marijuana Before 13	15.8	18.6	13.5	12.1	11.2	11.2
Grade 10	% Ever Used Cocaine	7.1	9.8	5.8	9.9	7.2	7.2
	% Ever Used Inhalants	20.7	15	11.5	17.9	13.2	14.6
	% Current Marijuana Use	25.7	31.6	27.7	23.7	20.2	19.3
	% Marijuana Before 13	10.9	16.5	16.2	13.2	9.1	9.1
Grade 11	% Ever Used Cocaine	8.5	10.3	9.9	6.7	8.7	7.7
	% Ever Used Inhalants	21.5	14.4	12.3	13.4	11.4	12.5
	% Current Marijuana Use	31.7	40.8	26.8	19.8	21.0	21.4
	% Marijuana Before 13	6.8	19.3	10.9	11.5	7.1	7.1
Grade 12	% Ever Used Cocaine	11.4	10.0	7.7	8.2	8.9	9.5
	% Ever Used Inhalants	20.7	12.2	11	12.9	10.1	10.2
	% Current Marijuana Use	30.9	30.5	24.3	22.2	22.8	25.1
	% Marijuana Before 13	12.7	11.8	9.5	10.6	6.2	6.2

Chart 1. Trends in Youth Reporting Current Marijuana Use, Alaska YRBS



National Survey on Drug Use and Health (NSDUH)

Definitions of illicit drug use:

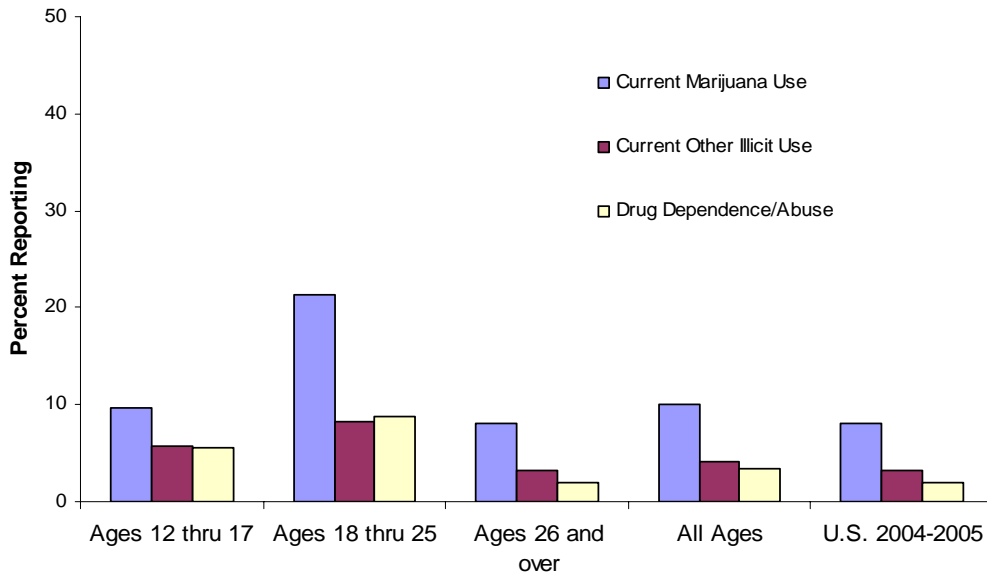
- Illicit drugs include marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP], lysergic acid diethylamide [LSD], and Ecstasy [MDMA]), heroin, or prescription-type psychotherapeutics used non-medically, which include stimulants, sedatives, tranquilizers,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

NSDUH results indicated 10% of surveyed Alaskan adults reported current use marijuana. Nearly 22% of adults between ages 18-25 years reported current marijuana use; 10% of youth ages 12-17 reported current use of marijuana. The 2007 YRBS survey results indicated at least 20% of students in Grade 10, 11, and 12 reported current marijuana use, which more closely mirrors the NSDUH results for young adults ages 18-25 years (Table 3; Chart 2).

Table 3. Trends in Reported Illicit Drug Use, by Age Group, Alaska NSDUH

		2003-2004	2004-2005	U.S. 2004-2005
Ages 12 thru 17	% Current Marijuana Use	12	9.7	7.2
	% Current Other Illicit Use	5.5	5.7	5.1
	% Drug Dependence/Abuse	6.2	5.5	5
	% Needing Treatment in Past Year	4.8	4.8	4.7
Ages 18 thru 25	% Current Marijuana Use	23	21.4	16.4
	% Current Other Illicit Use	7.8	8.3	8.5
	% Drug Dependence/Abuse	9	8.7	8.4
	% Needing Treatment in Past Year	7.8	7.8	7.7
Ages 26 and over	% Current Marijuana Use	7	8	4
	% Current Other Illicit Use	3	3.2	2.5
	% Drug Dependence/Abuse	1.8	2	1.7
	% Needing Treatment in Past Year	2.4	2.4	2.7
All Ages	% Current Marijuana Use	9.9	10.1	8
	% Current Other Illicit Use	4	4.2	3.2
	% Drug Dependence/Abuse	3.4	3.4	2
	% Needing Treatment in Past Year	3.5	3.5	2.4

Chart 2. Reported Illicit Drug Use, Dependency or Abuse, by Age Groups, Alaska NSDUH, 2004-2005



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).

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, and national averages were available for most recent year comparison. As of 2003, Alaska has achieved “20% or below” compliance that was established by the federal Synar Amendment² prohibiting the sales and distribution of tobacco products to minors.

Between 1996 and 2005, cigarette sales diminished by 32%. This trend in cigarette sales (Table 1) 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.

Table 1. Trend in Annual Cigarette Sales Per Capita, Alaska

	2000	2001	2002	2003	2004	2005	U.S. 2005
Cigarette Packs Sold Per Adult	103.4	98.8	96.2	89.9	86.9	84.4	84.4

Youth Risk Behavior Survey (YRBS)

Definitions of cigarette use:

- Current use was defined as any reported use one or more times in the 30 days preceding the survey.

In 2007, YRBS results indicated that cigarette use continued to be prevalent among Alaska high school youth. Greater than half of youth reported lifetime (ever tried) cigarette smoking and 18% have continued to smoke in the past month however the overall reduction in early, current, and daily use by high school youth was statistically significant, particularly after 1999. While females reported slightly more current and daily cigarette use, more males reported early cigarette use before 13 years of age (Table 2; Chart 1). Alaska Native high school youth reported cigarette use as much as 6 times the rate of Non-Native youth. The reported cigarette use increased for Non-Native youth as grade increased (Chart 2).

In light of the continued prevalence of cigarette use, 61% of students who reported current cigarette use have tried to quit smoking in the past year. However, 10% of high school youth reported use of smokeless tobacco (chewing tobacco, snuff, or dip) during the past month. Not

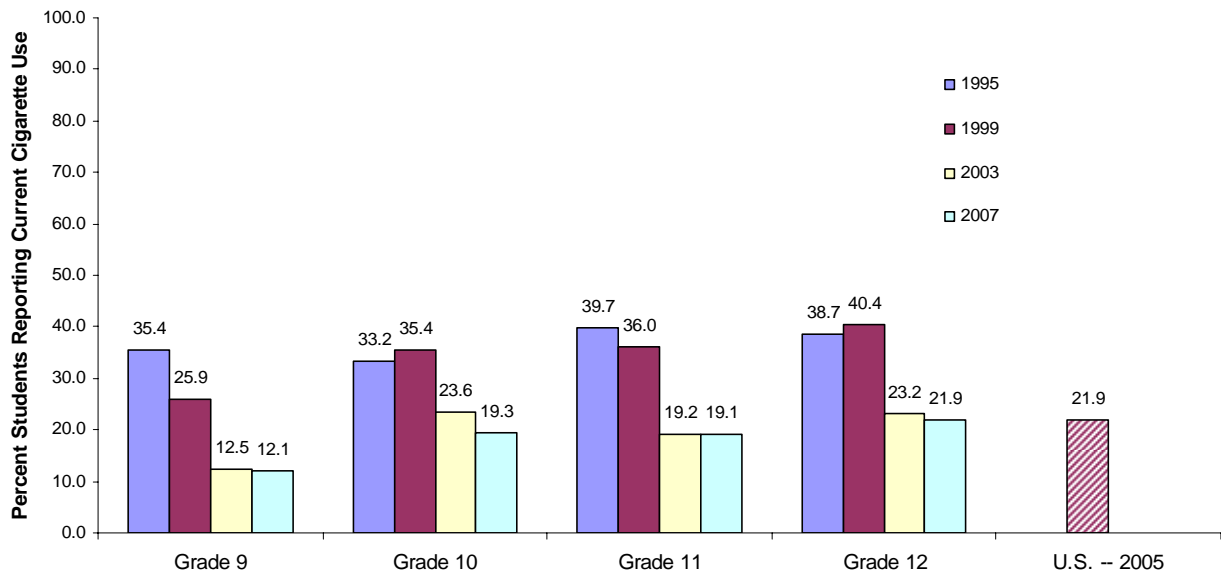
² [Http://prevention.samhsa.gov/tobacco/default.aspx](http://prevention.samhsa.gov/tobacco/default.aspx)

available for this survey was information pertaining to the use of iqmik³, a substance made of tobacco and the ash of a fungus (*Phellinus igniarius*) that grows on birch trees. The practice was not new and was prevalent in several regions, particularly the Yukon-Kuskokwim Delta.

Table 2. Trends in Cigarette Use Among Youth, by Gender, Alaska YRBS

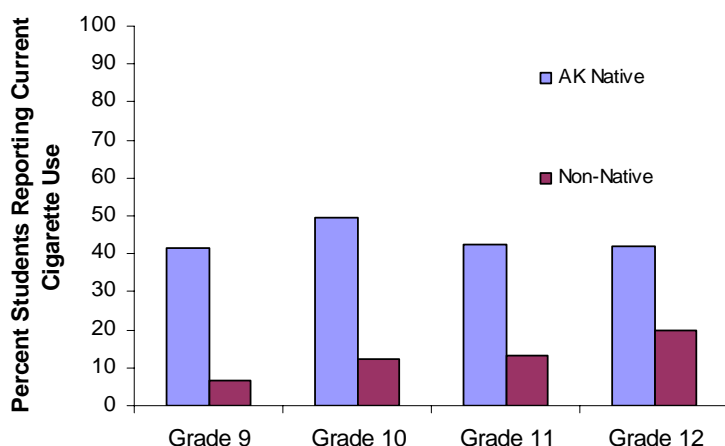
		1995	1999	2003	2007	U.S. 2005	U.S. 2007
Female	% Cigarette Before 13	28.1	31.9	18.2	14.3	13.6	11.9
	% Current Cigarette Use	36.5	35.8	20.2	19.7	20.3	18.7
	% Daily Cigarette Use	20.5	18.9	8.2	15.5	13.5	11.8
Male	% Cigarette Before 13	33	33	20.9	17.4	18.3	16.4
	% Current Cigarette Use	36.4	31.1	18.4	15.9	22.9	21.3
	% Daily Cigarette Use	21.4	16.6	7.9	12	13.3	13.0

Chart 1. Trend in Current Cigarette Use Among Youth, by Gender, Alaska YRBS



³ [Http://www.tobacco.org/news/79236.html](http://www.tobacco.org/news/79236.html)

Chart 2. Youth Reporting Current Cigarette Use, by Race, Alaska YRBS, 2003



Behavioral Risk Factor Surveillance Survey (BRFSS)

Definitions of cigarette use:

- Current use was defined as any reported use within the past 30 days.

In 2005, BRFSS results indicated that at least 25% of adults in Alaska reported cigarette use. The prevalence of cigarette use appeared to remain relatively constant, ranging from a survey high of 29% in 1994 to a survey low of 25% in 2000. Significantly more males reported cigarette use than females. Prior to 2003, adults ages 18-29 years reported the highest rates for current and daily cigarette uses, (Table 3 and 4). Over half of adult smokers had incomes below the federal poverty level (BRFSS, 2004).

Of adults using smokeless tobacco, 8% are using iqmik⁴, a substance made of tobacco and the ash of a fungus (*Phellinus igniarius*) that grows on birch trees. The practice was not new and was prevalent in several regions, particularly the Yukon-Kuskokwim Delta.

Table 3. Trends in Cigarette Use Among Adults, by Gender, Alaska BRFSS

		2001	2002	2003	2004	2005	U.S 2005
Female	% Current Cigarette Use	25.9	26.5	21.9	23.3	21.9	18.4
	% Daily Cigarette Use	19.5	20.7	15.1	16.0	15.2	13.7
Male	% Current Cigarette Use	26.4	32	30.2	26.2	27.8	22.3
	% Daily Cigarette Use	18.4	23.1	23.1	16.7	22.2	16.1

⁴ [Http://www.tobacco.org/news/79236.html](http://www.tobacco.org/news/79236.html)

Table 4. Trends in Cigarette Use Among Adults, by Age Group, Alaska BRFSS

		2001	2002	2003	2004	2005	U.S 2005
Ages 18 thru 20	% Current Cigarette Use	30.3	34.2	19.1	21.8	32.1	21.9
	% Daily Cigarette Use	22.7	25.2	11.1	14.2	25.6	14.5
Ages 21 thru 29	% Current Cigarette Use	33.1	41.1	32.9	31.6	33.2	27.6
	% Daily Cigarette Use	19.6	28.0	23.2	21.0	21.5	18.2
Ages 30 thru 34	% Current Cigarette Use	29.4	25.9	26.0	23.9	21.7	21.4
	% Daily Cigarette Use	21.8	22.2	20.4	14.6	17.4	14.4
Ages 35 thru 54	% Current Cigarette Use	27.1	28.0	28.2	27.1	26.6	22.8
	% Daily Cigarette Use	20.7	21.1	20.4	18.3	20.4	17.3
Ages 55 thru 64	% Current Cigarette Use	14.4	27.4	21.0	19.2	16.8	18.7
	% Daily Cigarette Use	12.3	24.0	18.1	12.6	14.6	14.6
Ages 65 and over	% Current Cigarette Use	14.2	15.7	14.9	12.5	13.8	8.9
	% Daily Cigarette Use	10.8	7.9	11.7	7.4	10.1	6.7

Cigarette use increased significantly in 2002 in the all groups other than Alaska Native and White. The prevalence of cigarette use among Alaska Native and White adults appeared to remain relatively constant over all years that the survey was conducted. The percentage of Alaska Native adults who smoked was nearly twice as high as White adults who smoke (Chart 3; Table 5).

Chart 3. Trends in Current Cigarette Use Among Adults, by Race and Ethnicity, Alaska BRFSS

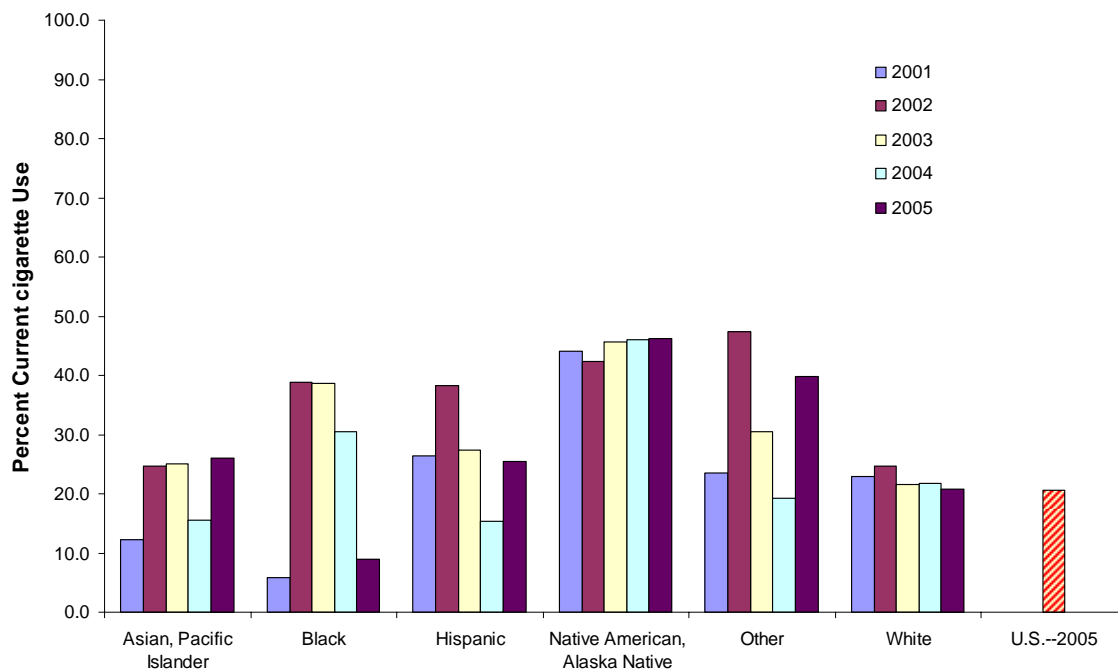


Table 5. Trends in Cigarette Use Among Adults, by Race and Ethnicity, Alaska BRFSS

		2001	2002	2003	2004	2005	U.S. 2005
Asian, Pacific Islander	% Current Cigarette Use	12.2	24.7	25.0	15.6	26.1	11.8
	% Daily Cigarette Use	8.8	16.5	15.2	12.7	21.1	8.2
Black	% Current Cigarette Use	5.9	38.9	38.6	30.5	8.9	20.9
	% Daily Cigarette Use	5.1	21.5	26.2	22.9	6.2	14.3
Hispanic	% Current Cigarette Use	26.4	38.3	27.3	15.4	25.5	17.5
	% Daily Cigarette Use	23.2	23.4	14.2	9.6	13.1	9.8
Native American, Alaska Native	% Current Cigarette Use	44.1	42.4	45.6	46.0	46.2	34.9
	% Daily Cigarette Use	30.8	30.7	29.6	27.4	30.6	26.1
Other	% Current Cigarette Use	23.4	47.3	30.5	19.2	39.8	22.1
	% Daily Cigarette Use	17.1	29.5	25.6	16.7	38.9	16.7
White	% Current Cigarette Use	23.0	24.6	21.5	21.8	20.7	21.0
	% Daily Cigarette Use	17.2	19.5	16.9	14.6	16.1	16.0

National Survey on Drug Use and Health (NSDUH)

Definitions of tobacco product and cigarette use:

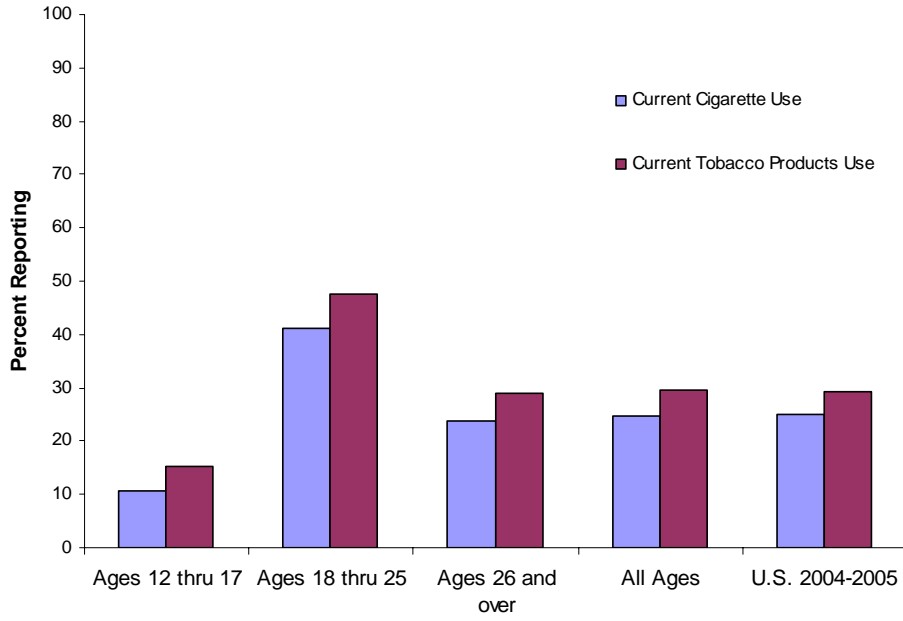
- Tobacco product includes cigarettes, chewing tobacco, snuff, cigars, and pipe tobacco.
- Current use was defined as any reported use within the past 30 days.

NSDUH survey data mirrored the BRFSS data in that young adults ages 18-25 years reported a significantly higher rate for cigarette use (Table 6; Chart 4).

Table 6. Trends in Reported Cigarette and Tobacco Products Use, by Age Group, Alaska NSDUH

		2003-2004	2004-2005	U.S. 2004-2005
Ages 12 thru 17	% Current Cigarette Use	13.2	10.8	11.3
	% Current Tobacco Products Use	15.9	15.1	13.8
Ages 18 thru 25	% Current Cigarette Use	42.7	41.3	39.3
	% Current Tobacco Products Use	47.8	47.6	44.4
Ages 26 and over	% Current Cigarette Use	24.6	23.8	24.2
	% Current Tobacco Products Use	28.7	28.9	28.8
All Ages	% Current Cigarette Use	25.5	24.6	24.9
	% Current Tobacco Products Use	29.6	29.7	29.3

Chart 4. Reported Cigarette and Tobacco Products Use, by Age Group, Alaska NSDUH, 2004-2005



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CONSEQUENCE

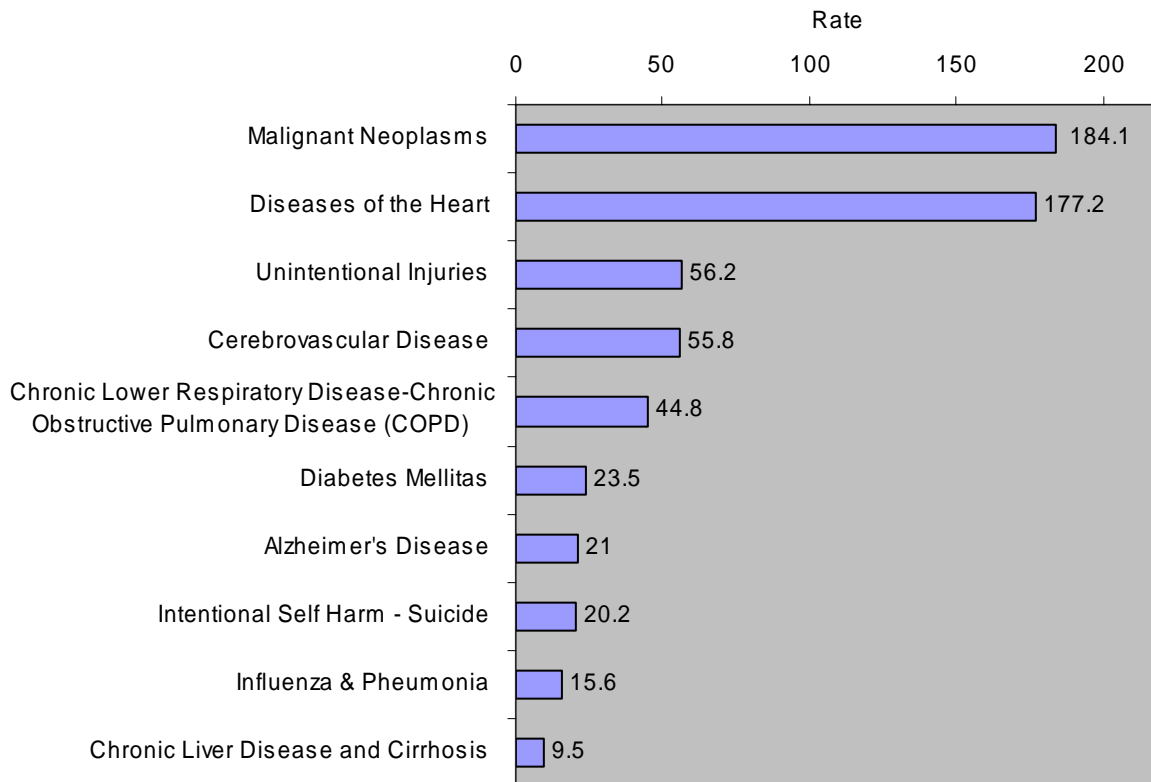
Problem Statement: Morbidity and Mortality

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 overcome limitations that are inherent with the use of crude death rates due to annual changes in population distribution, such as populations with higher proportion of elderly adults that will have a higher crude death rate.

Data Analysis

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 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. Until recently, unintentional injury has been the third leading cause of death in Alaska and has been identified as a major contributing factor for recreational, home, and occupational injuries.

Chart 1: Ten Leading Causes of Mortality in Alaska, 2001-2005



Rates are per 100,000 population; all ages rates are age-adjusted to the year 2000 US standard population. Source: Alaska Bureau of Vital Statistics, April 2008.

As expected, the number and rate of death increased with age, and was generalizable across all genders and race. Alaska males had significantly higher rates than females except for Black males over the age of 65 years. Alaska Natives consistently had the highest age adjusted rate of death. Rates of death were not homogenous across boroughs and census areas. Leading causes of premature death, including chronic liver disease, cirrhosis, homicide, suicide, and unintentional injury, were strongly associated with substance abuse (Table 1-4; Chart 2).

Table 1. All Cause of Death by Age, Gender, and Race, Alaska, 2001-2005

		0-24		25-64		65+		All Ages	
		Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹
Female	Asian	25	66.6	76	156.0	131	1,804.2	232	369.9
	Black	14	43.6*	82	278.0	77	2,909.0	173	555.9
	Native	173	126.6	620	489.1	815	4,464.0	1,608	932.7
	White	188	45.8	1,435	222.1	2,907	3,754.7	4,530	637.5
	All Races ²	402	65.2	2,224	261.3	3,943	3,734.4	6,569	669.4
Male	Asian	38	104.2	97	239.3	126	2,776.6	261	584.4
	Black	35	105.6	129	382.5	82	3,840.7	246	863.4
	Native	298	202.1	887	714.2	819	5,497.4	2,004	1,279.1
	White	391	89.2	2,813	391.6	3,073	4,168.0	6,277	875.1
	All Races ²	767	117.0	3,957	431.6	4,118	4,321.1	8,842	926.8
Total	Asian	63	85.1	173	193.8	257	2,178.2	493	456.4
	Black	49	75.1	211	333.7	159	3,325.0	419	698.7
	Native	471	165.8	1,507	600.5	1,634	4,928.4	3,612	1,094.5
	White	579	68.2	4,248	311.4	5,980	3,956.3	10,807	753.9
	All Races ²	1,169	91.9	6,181	349.7	8,061	4,012.7	15,411	793.2

¹ Rates are per 100,000 population in age group; all ages 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 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

Table 2. All Cause of Death by Gender and Borough/Census Area, Alaska, 2001-2005

	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	39	768.9	20	543.0	19	1974.4*
Aleutians West	63	957.9	38	1,027.1	25	894.5
Anchorage	5,954	749.8	3,325	892.2	2,628	630.1
Bethel	466	1,000.7	283	1,214.9	183	789.4
Bristol Bay Borough	22	646.8	20	1,257.4	2	**
Denali Borough	29	685.1	19	661.1*	10	756.3*
Dillingham	150	1,094.0	90	1,336.8	60	886.3
Fairbanks North Star Borough	1,724	783.0	934	845.6	790	720.2
Haines Borough	76	675.7	44	842.7	32	568.1
Juneau Borough	677	681.8	356	792.9	321	591.3
Kenai Peninsula Borough	1,478	825.2	864	997.4	614	680.0
Ketchikan Gateway Borough	432	826.6	253	979.4	179	675.0
Kodiak Island Borough	254	711.0	158	814.3	96	597.9
Lake And Peninsula	67	1,134.0	43	1,439.9	24	781.1
Matanuska-Susitna Borough	1,664	830.9	976	945.8	688	715.0
Nome	328	1,086.2	209	1,351.2	119	783.7
North Slope Borough	171	956.9	101	1,027.8	70	808.6
Northwest Arctic Borough	206	1,041.7	128	1,288.3	78	828.6
Prince Of Wales-Outer Ketchikan	142	886.7	94	1,033.3	48	713.2
Sitka Borough	243	701.4	134	831.6	109	573.8
Skagway-Hoonah-Angoon	76	630.5	47	695.2	29	518.6
Southeast Fairbanks	190	900.8	123	1,068.4	67	693.7
Valdez-Cordova	247	734.5	157	848.7	90	600.5
Wade Hampton	195	972.7	115	1,202.4	80	754.8
Wrangell-Petersburg	248	852.6	131	941.9	117	761.4
Yakutat Borough	24	2,433.1	19	2995.7*	5	**
Yukon-Koyukuk	212	909.2	141	1,101.1	71	681.0
ALASKA Total	15,412	793.2	8,842	926.8	6,569	669.4

¹ Rates are per 100,000 population; all rates are age-adjusted to the year 2000 US standard population.

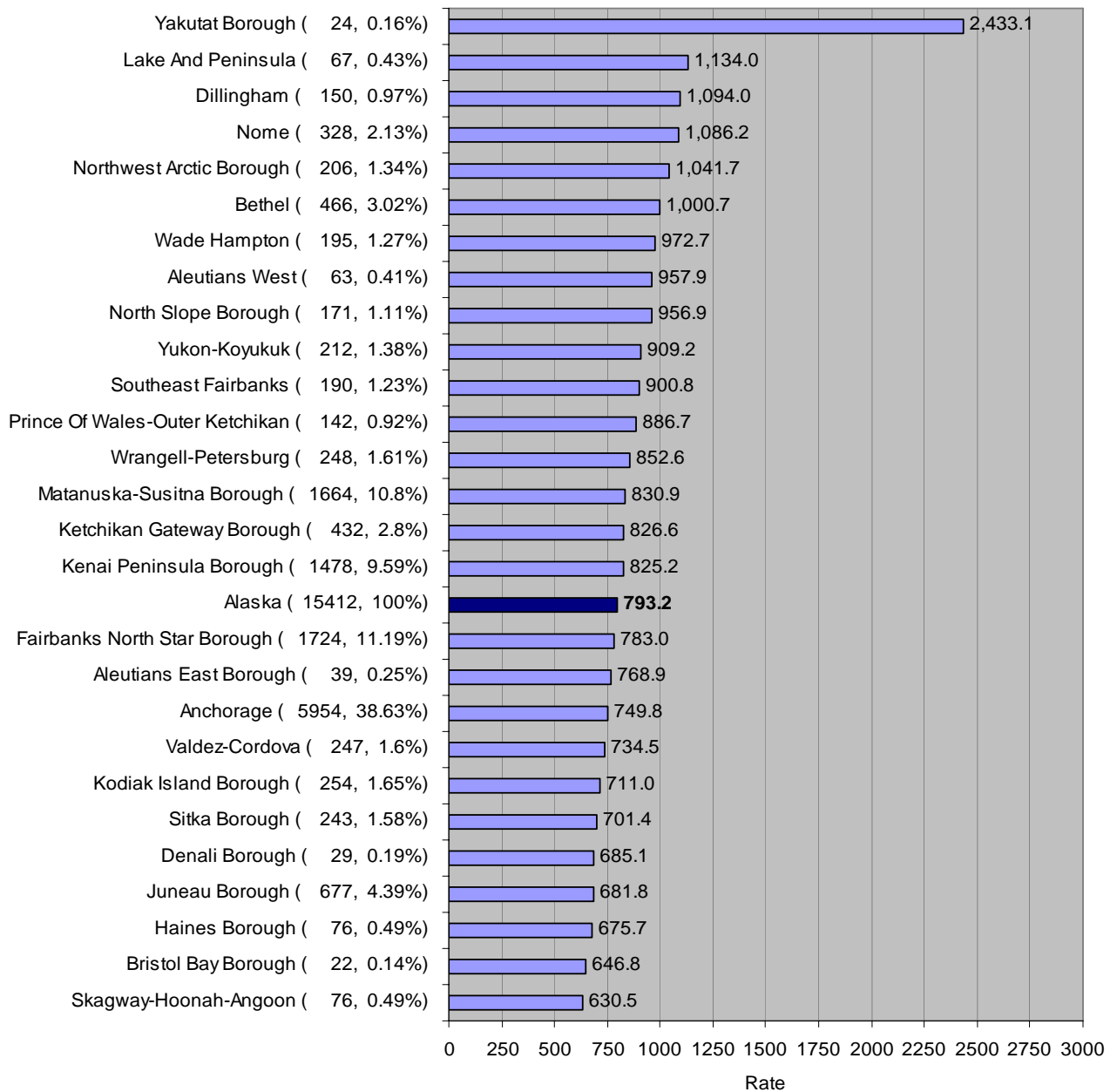
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.

** Rates based on fewer than 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

Chart 2. All Cause of Death and Rates¹ by Borough/Census Area, Alaska, 2001-2005

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



¹ Rates are per 100,000 population ; all rates are age-adjusted to the year 2000 US standard population.
 Source: Alaska Bureau of Vital Statistics, April 2008.

Table 3. Cause of Death Associated with Substance Abuse, Alaska, 2001-2005

Health Indicators for Census Areas/Boroughs	Number of Deaths						
	All Causes of Death	Alcohol Induced	Drug Induced	Unintentional Injury	Suicide	Homicide	Chronic Liver Disease & Cirrhosis
Aleutians East Borough	39	3	0	3	2	0	1
Aleutians West	63	3	2	11	4	0	1
Anchorage	5,954	205	201	530	218	91	117
Bethel	465	27	2	68	36	7	2
Bristol Bay Borough	22	1	1	4	2	0	1
Denali Borough	29	0	0	3	1	0	0
Dillingham	150	5	2	35	5	2	4
Fairbanks North Star Borough	1,724	69	51	173	56	31	34
Haines Borough	76	2	1	6	0	1	0
Juneau Borough	677	17	10	46	20	0	14
Kenai Peninsula Borough	1,478	51	48	163	44	12	36
Ketchikan Gateway Borough	432	22	6	33	8	6	9
Kodiak Island Borough	254	13	4	28	8	0	7
Lake And Peninsula	67	8	0	18	1	2	2
Matanuska-Susitna Borough	1,664	32	58	202	72	21	23
Nome	328	24	5	55	36	7	6
North Slope Borough	171	8	0	23	14	5	1
Northwest Arctic Borough	205	10	2	34	27	1	3
Prince Of Wales-Outer Ketchikan	142	9	1	12	5	1	5
Sitka Borough	243	7	5	23	7	0	4
Skagway-Hoonah-Angoon	76	1	1	9	3	1	1
Southeast Fairbanks	190	16	0	27	9	2	3
Valdez-Cordova	247	20	5	27	13	2	10
Wade Hampton	194	4	1	32	29	3	0
Wrangell-Petersburg	248	3	6	24	3	4	0
Yakutat Borough	24	2	0	5	0	0	0
Yukon-Koyukuk	212	23	5	40	16	7	1
ALASKA Total	15,409	586	420	1,642	639	207	285

Source: Alaska Bureau of Vital Statistics, April 2008.

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 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
Drug-Induced	

Table 4. Cause of Death Associated with Substance Abuse, Alaska, 2001-2005

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	768.9	**	0.0	**	**	0.0	**
Aleutians West	957.9	**	**	72.4*	**	0.0	**
Anchorage	749.8	15.9	14.2	42.8	16.5	6.3	10.7
Bethel	997.5	43.2	**	92.6	42.9	7.3*	**
Bristol Bay Borough	646.8	**	**	**	**	0.0	**
Denali Borough	685.1	0.0	0.0	**	**	0.0	0.0
Dillingham	1094.0	**	**	174.6	**	**	**
Fairbanks North Star Borough	783.0	18.7	12.2	46.7	14.8	6.9	10.3
Haines Borough	675.7	**	**	47.0*	0.0	**	0.0
Juneau Borough	681.8	11.0*	7.4*	34.1	13.1	0.0	12.5*
Kenai Peninsula Borough	825.2	17.9	18.7	71.7	17.3	4.9*	14.6
Ketchikan Gateway Borough	826.6	31.2	8.4*	50.5	12.3*	8.0*	11.7*
Kodiak Island Borough	711.0	19.6*	**	46.5	13.3*	0.0	10.2*
Lake And Peninsula	1134.0	107.9*	0.0	211.0*	**	**	**
Matanuska-Susitna Borough	830.9	11.3	16.3	65.5	21.8	6.1	10.0
Nome	1086.2	71.7	**	135.8	78.1	15.4*	18.7*
North Slope Borough	956.9	33.5*	0.0	95.0	38.1*	**	**
Northwest Arctic Borough	1038.3	31.3*	**	113.7	73.8	**	**
Prince Of Wales-Outer Ketchikan	886.7	48.0*	**	38.2*	**	**	**
Sitka Borough	701.4	15.8*	**	54.3	17.3*	0.0	**
Skagway-Hoonah-Angoon	630.5	**	**	70.7*	**	**	**
Southeast Fairbanks	900.8	50.7*	0.0	99.6	29.7*	**	**
Valdez-Cordova	734.5	36.2	**	55.6	21.8*	**	19.4*
Wade Hampton	965.1	**	**	99.7	81.4	**	0.0
Wrangell-Petersburg	852.6	**	18.9*	80.1	**	**	0.0
Yakutat Borough	2433.1	**	0.0	**	0.0	0.0	0.0
Yukon-Koyukuk	909.2	79.3	**	139.0	50.3*	24.0*	**
ALASKA Total	793.0	19.3	12.8	56.2	20.2	6.1	10.9

¹ Rates are per 100,000 population; all 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 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

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 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
Drug-Induced	

Problem Statement: Alcohol-Related Consequences

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.

Data Analysis

Overall, males experienced nearly twice the number of alcohol induced deaths. Alaska Natives experience the highest rate of alcohol induced death. Native males ages 25-64 years have a 17% higher rate of death than Native females. In 2005, nearly one of every 13 Native deaths was an alcohol induced death. Highest rates were found in rural Alaska (Table 1; Chart 1 and 2). 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 1. Alcohol Induced Death by Age, Gender, and Race, Alaska, 2001-2005

		Age Groups							
		0-24		25-64		65+		All Ages	
		Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹
Female	Asian	0	0.0	1	**	0	0.0	1	**
	Black	1	**	0	0.0	0	0.0	1	**
	Native	3	**	109	86.0	12	65.7*	124	53.8
	White	0	0.0	71	11.0	5	**	76	6.3
	All Races	4	**	181	21.3	17	16.1*	202	13.1
Male	Asian	0	0.0	1	**	0	0.0	1	**
	Black	0	0.0	4	**	1	**	5	**
	Native	11	7.5*	128	103.1	21	141.0	160	75.7
	White	5	**	173	24.1	38	51.5	216	18.5
	All Races	16	2.4*	308	33.6	60	63.0	384	25.7
Total	Asian	0	0.0	2	**	0	0.0	2	**
	Black	1	**	4	**	1	**	6	7.9*
	Native	14	4.9*	237	94.4	33	99.5	284	63.9
	White	5	**	244	17.9	43	28.4	292	12.6
	All Races	20	1.6	489	27.7	77	38.3	586	19.3

¹ Rates are per 100,000 population in age group; all ages 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.

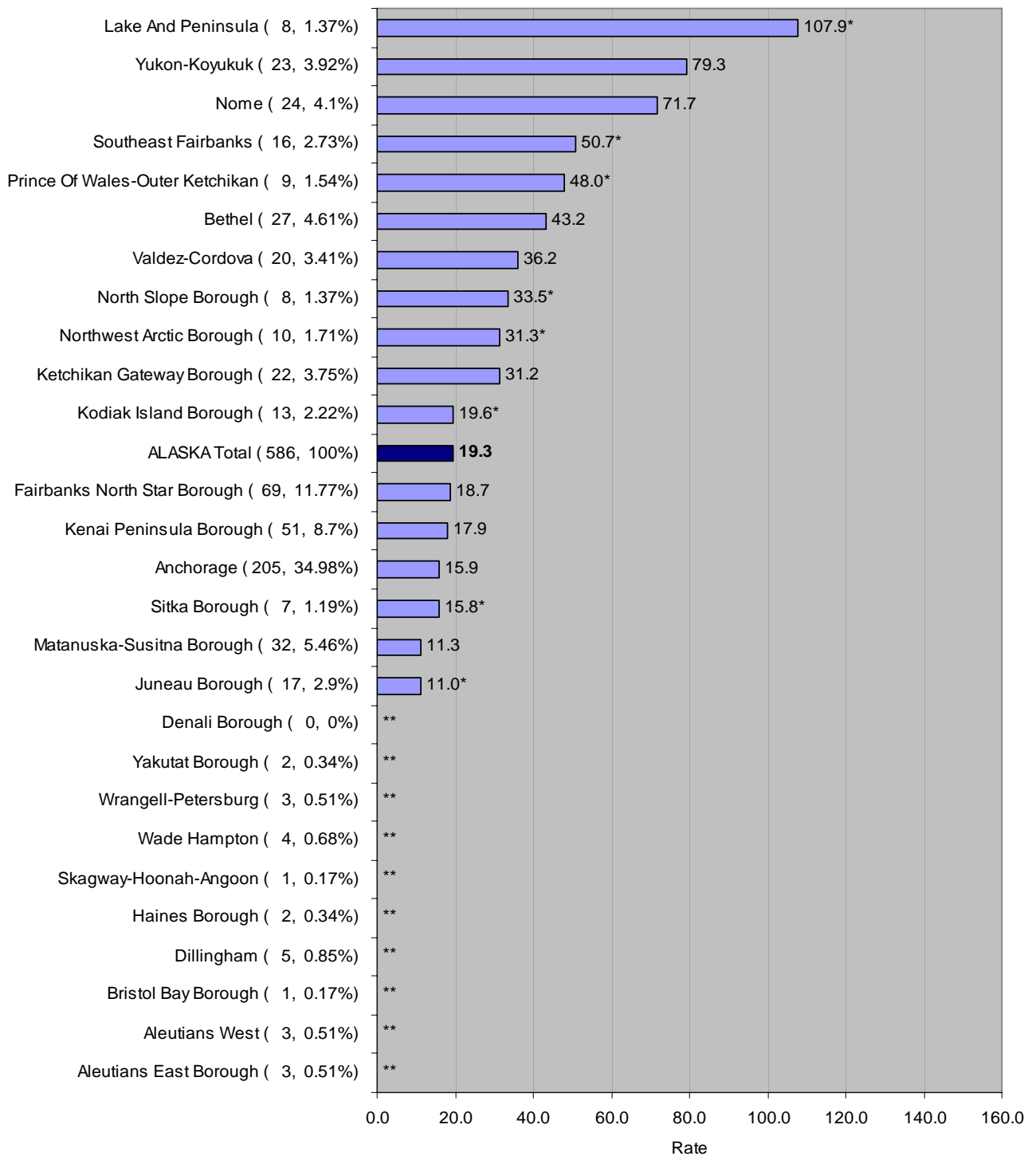
** Rates based on fewer than 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

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

Chart 1. Alcohol Induced Death and Rates¹ by Borough/Census Area, Alaska, 2001-2005

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



¹ Rates are per 100,000 population, age-adjusted to the year 2000 US standard population.

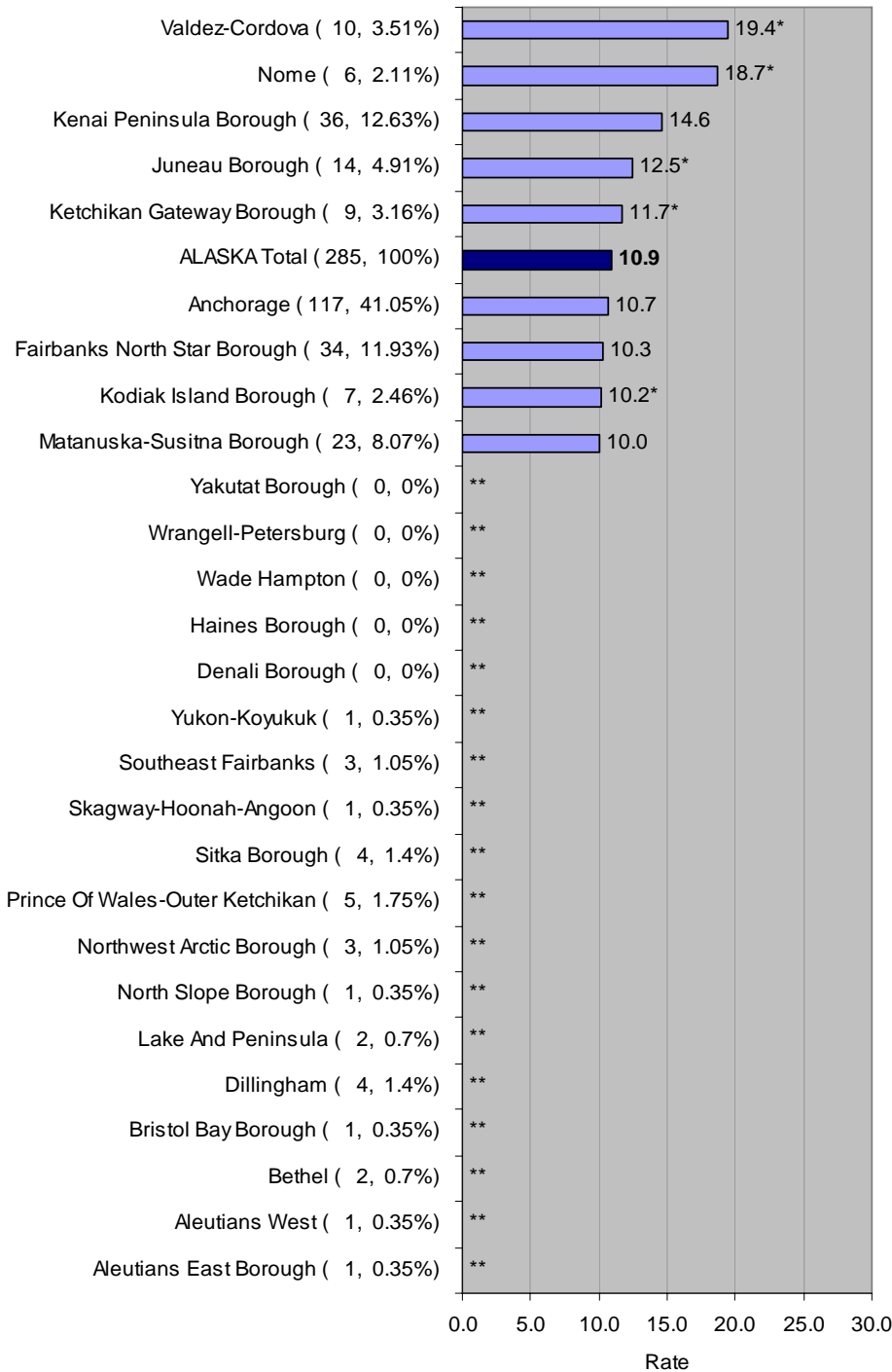
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.

** Rates based on fewer than 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

Chart 2. Chronic Liver Disease and Cirrhosis Death and Rates¹ by Borough/Census Area, Alaska, 2001-2005

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



¹Rates are per 100,000 population; all 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 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

Alaska Natives experienced the highest rate of death due to unintentional injury. Alaska Native ages 25-64 years experienced nearly twice the rate of death than White and All Races. In 2004, Alaska males were 2.6 times more likely than females to die from unintentional injury. Lake and Peninsula had the highest rates of unintentional injury, followed by Dillingham and Yukon-Koyukuk (Table 2; Chart 3).

Table 2. Unintentional Injury Death by Age, Gender, and Race, Alaska, 2001-2005

		0-24		25-64		65+		All Ages	
		Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹
Female	Asian	5	**	5	**	2	**	12	15.2*
	Black	2	**	7	23.7*	2	**	11	24.6*
	Native	47	34.4	82	64.7	14	76.7*	143	55.5
	White	64	15.6	174	26.9	59	76.2	297	29.5
	All Races	118	19.1	270	31.7	78	73.9	466	33.0
Male	Asian	8	21.9*	14	34.5*	2	**	24	32.5
	Black	13	39.2*	10	29.6*	1	**	24	36.8
	Native	103	69.9	198	159.4	41	275.2	342	143.9
	White	162	37.0	530	73.8	90	122.1	782	70.0
	All Races	287	43.8	755	82.4	134	140.6	1,176	78.7
Total	Asian	13	17.6*	19	21.3*	4	**	36	22.9
	Black	15	23.0*	17	26.9*	3	**	35	31.0
	Native	150	52.8	280	111.6	55	165.9	485	98.7
	White	226	26.6	704	51.6	149	98.6	1,079	50.1
	All Races	405	31.8	1,025	58.0	212	105.5	1,642	56.2

¹ Rates are per 100,000 population in age group; all ages rates are age-adjusted to the year 2000 US standard population.

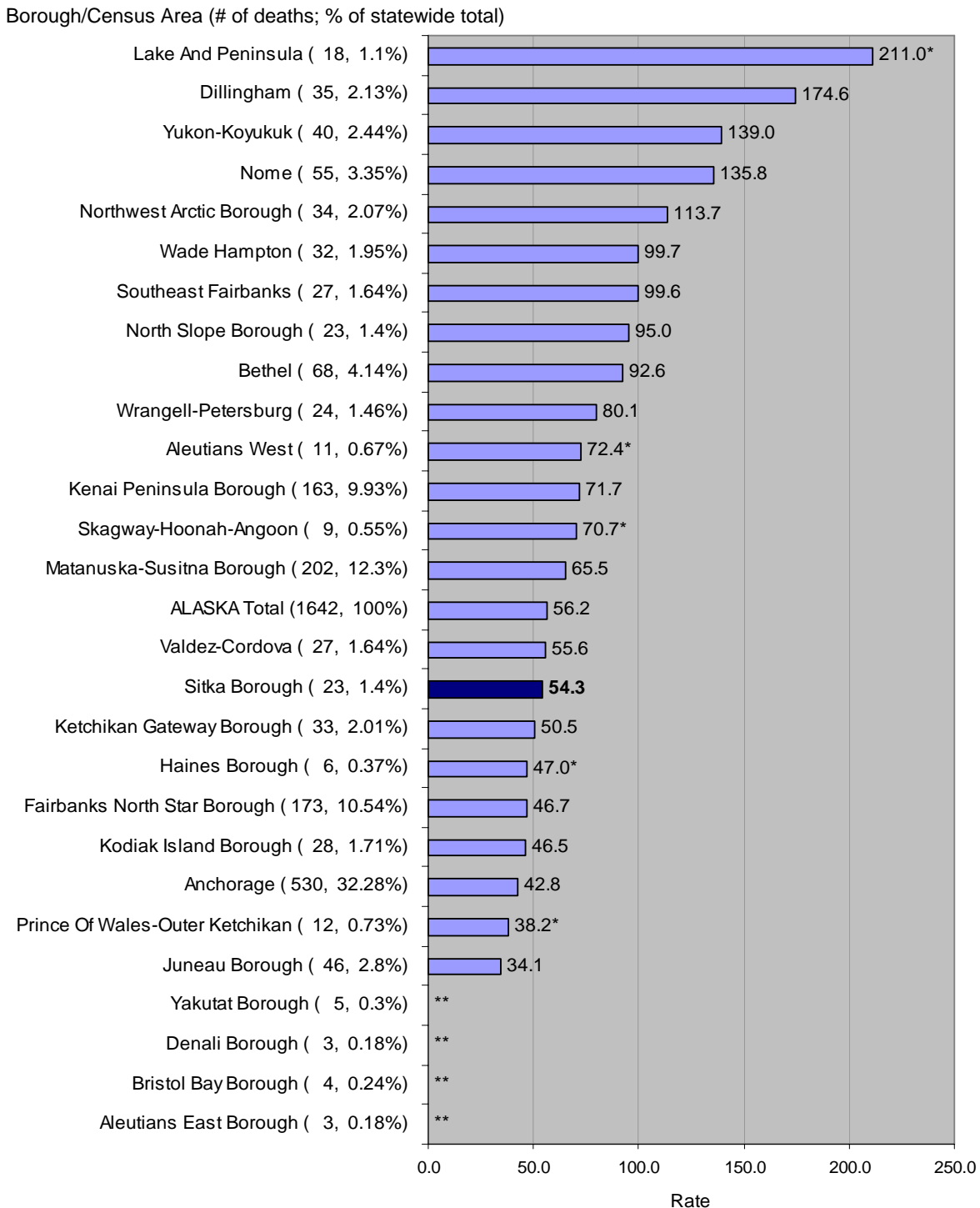
* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.

** Rates based on fewer than 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

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

Chart 3. Unintentional Injury Death and Rates¹ by Borough/Census Area, Alaska, 2001-2005



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 10 events are not reported.
 Source: Alaska Bureau of Vital Statistics, April 2008.

Alaska Trauma Registry (ATR)

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. The rate of males was nearly double that of females for hospitalized injuries associated with alcohol use at the time of the injury (Chart 4; Table 3). Of these hospitalizations, the highest prevalence was among Alaska Natives (59%) followed by Whites (33%).

Chart 4. Number of Hospitalized Injury Associated with Alcohol Use, Alaska Residents, by Gender, ATR 2001-2005

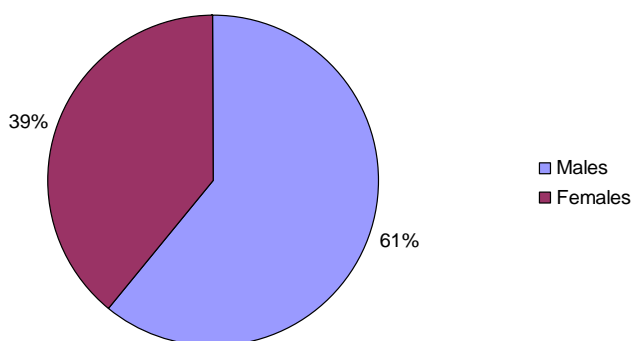


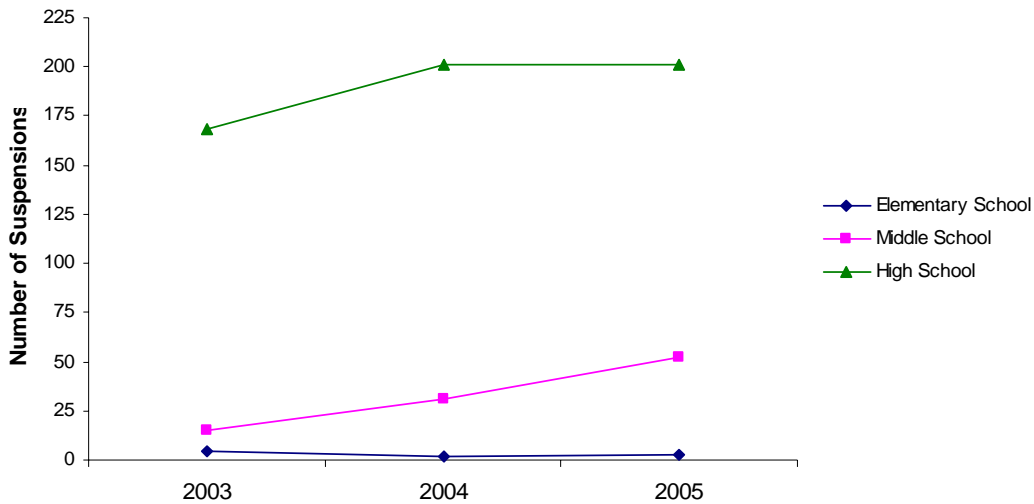
Table 3. Hospitalized Injury Associated with Alcohol Use, Alaska Residents, by Race and Ethnicity, ATR 2001-2005

	Number of Recordable Injuries	Number of Suspected or Proven Alcohol Use by Patient At Time of Injury	Percent of Recordable Injuries by Race
Asian / Pacific Islander	529	57	10.8%
Black	581	98	16.9%
Hispanic	363	64	17.6%
Native American / Alaska Native	8,165	3,424	41.9%
White	12,823	1,934	15.1%
Unknown	1,230	231	18.8%
Total	23,691	5,808	24.5%

School Suspensions and Expulsions Due to Alcohol

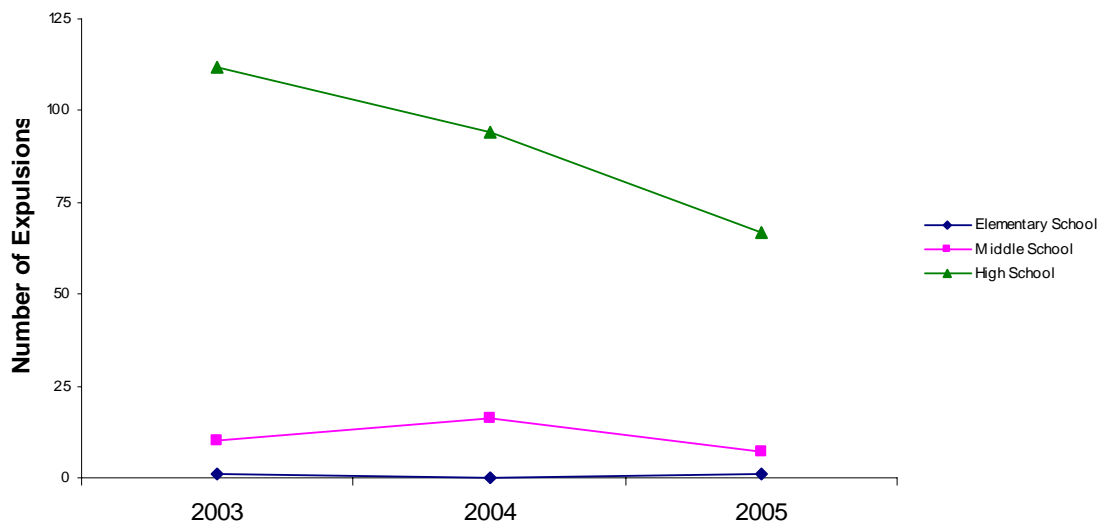
From 2003 to 2005, 677 suspension and 41 expulsions from school were related to alcohol. High school suspension and expulsions for alcohol use occurred more frequently than middle and elementary school (Chart 5 and 6). While the number of high school suspensions remained unchanged, middle school suspensions rose 68% in 2005. The ratio of expulsion-suspension for high school students shifted from 1:20 in 2004 to 1:14 in 2005. Suspensions for elementary school students presented no statistically significant change.

Chart 5. Trends in Alcohol Related School Suspensions, Alaska, 2003-2005



Source: Alaska Department of Education & Early Development

Chart 6. Trends in Alcohol Related School Expulsions, Alaska, 2003-2005



Source: Alaska Department of Education & Early Development

Fetal Alcohol Spectrum Disorders (FASD)

SAMMHTSA 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 issues. 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 Alaska Maternal Child Health (MCH) Unit collects information pertaining to FASD infants and a summary of select birth characteristics (Table 4) and prevalence in Alaska (Chart 7) is provided below.

Table 4. FASD by Select Birth Characteristics, Alaska 1996-2002

	Number	Rate 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

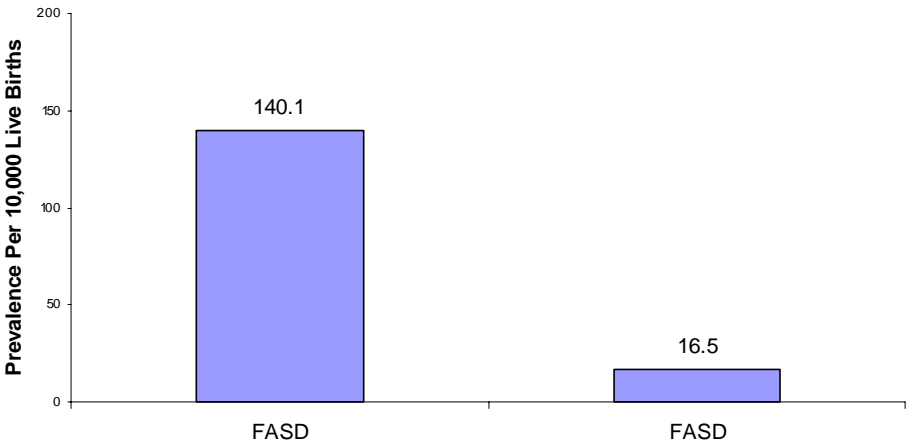
¹ Rate per 10,000 live births.

* Rates based on fewer than 20 events are statistically unreliable and should be used with caution.

**Rates based on fewer than 10 events are not reported.

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

Chart 7. Prevalence of Specific Fetal Alcohol Spectrum Disorders, Alaska, 1996-2002



¹ Rate 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 10 events are not reported.
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.

Data Analysis

Drug induced mortality included deaths from dependent and non-dependent use of drugs (legal & illegal) and poisoning from medically prescribed and other 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. Highest rates were noted in Wrangell-Petersburg and South Central communities of Alaska (Table 1; Chart 1).

Table 1. Drug-induced Death by Age, Gender, and Race, Alaska, 2001-2005

		0-24		25-64		65+		All Ages	
		Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹
Female	Asian	1	**	7	23.7*	0	0.0	8	12.6*
	Black	10	7.3*	38	30.0	4	**	52	20.6
	Native	11	2.7*	122	18.9	3	**	136	11.2
	White	22	3.6	168	19.7	7	6.6*	197	12.4
	All Races	1	**	1	**	0	0.0	2	**
Male	Asian	1	**	2	**	0	0.0	3	**
	Black	2	**	32	25.8	1	**	35	14.4
	Native	24	5.5	150	20.9	6	8.1*	180	14.0
	White	28	4.3	188	20.5	7	7.3*	223	13.2
	All Races	1	**	1	**	0	0.0	2	**
Total	Asian	2	**	9	14.2*	0	0.0	11	8.7*
	Black	12	4.2*	70	27.9	5	**	87	17.6
	Native	35	4.1	272	19.9	9	6.0*	316	12.6
	White	50	3.9	356	20.1	14	7.0*	420	12.8
	All Races	1	**	7	23.7*	0	0.0	8	12.6*

¹ Rates are per 100,000 population in age group; all ages 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.

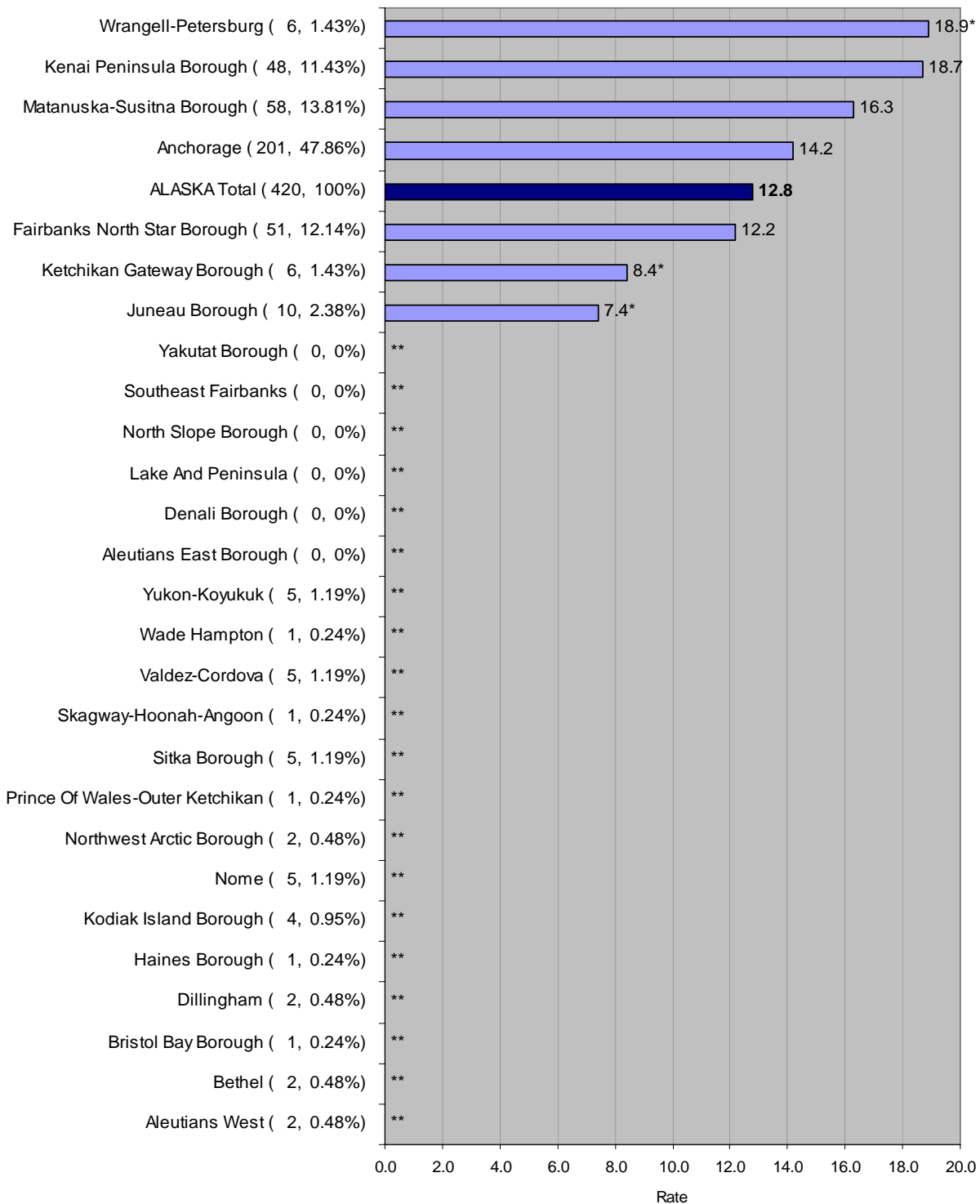
** Rates based on fewer than 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

Cause of Death:	ICD-10 Codes
Drug-Induced ²	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

Chart 1. Drug Induced Death and Rates¹ by Borough/Census Area, Alaska, 2001-2005

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



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 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

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. The rate of males was double that of females for hospitalized injuries associated with alcohol use at the time of the injury (Chart 2; Table 2).Of these hospitalizations, the prevalence was nearly equal among Alaska Natives (46%%) and non-Alaska Natives (51%).

Chart 2. Number of Hospitalized Injury Associated with Drug Use, Alaska Residents, by Gender, ATR 2001-2005

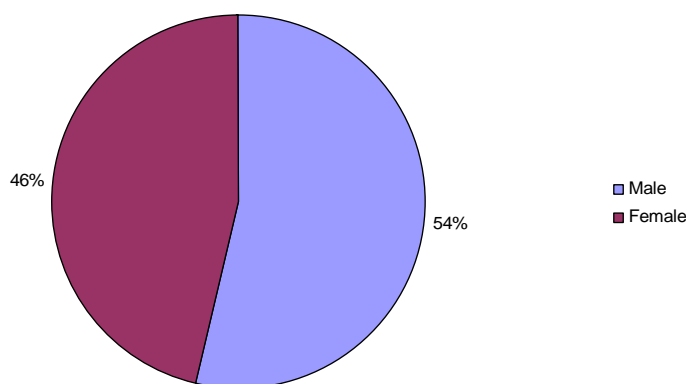


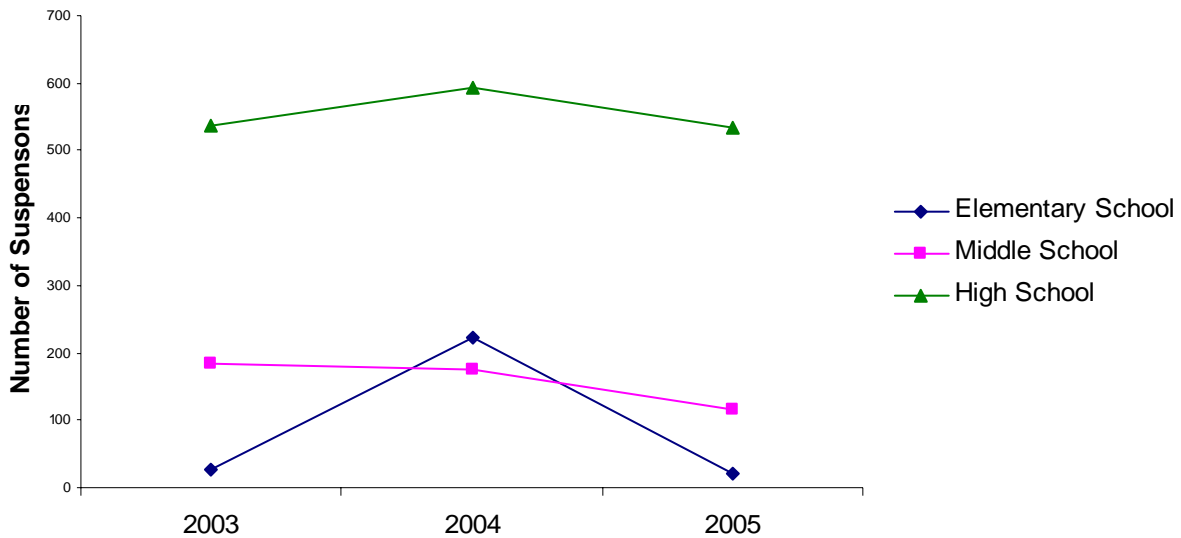
Table 2. Hospitalized Injury Associated with Drug Use, Alaska Residents, by Race and Ethnicity, ATR 2001-2005

	Number of Recordable Injuries	Number of Suspected or Proven Drug Use by Patient At Time of Injury	Percent of Recordable Injuries by Race
Asian / Pacific Islander	529	44	8.3%
Black	581	109	18.8%
Hispanic	363	46	12.7%
Native American / Alaska Native	8,165	1,224	15.0%
White	12,823	1,157	9.0%
Unknown	1,230	98	8.0%
Total	23,691	2,678	11.3%

School Suspensions and Expulsions Due to Illicit Drugs

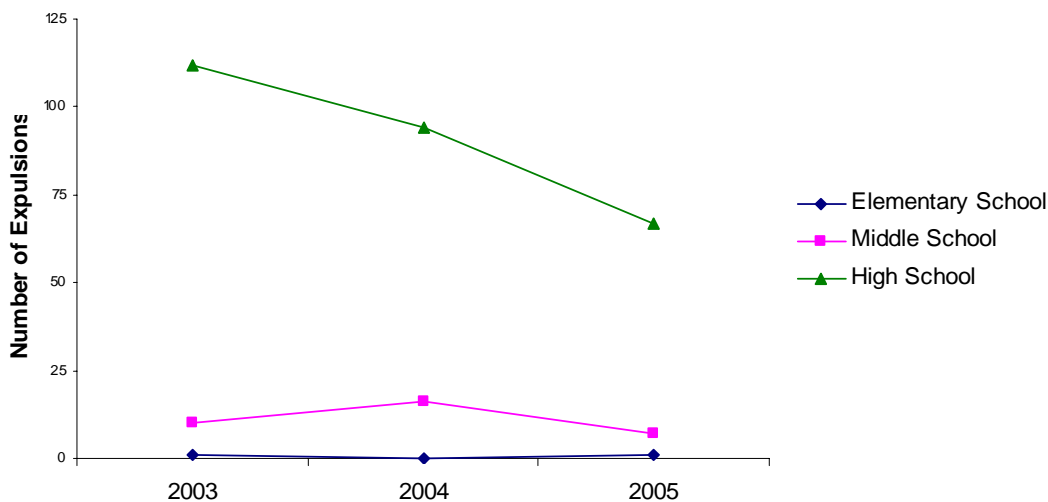
From 2003 to 2005, 2,411 suspension and 308 expulsions from school were related to alcohol. Suspensions for drug use have increased in all levels in 2005. School suspensions for drug use mirrored suspensions for alcohol use, occurred more frequently in high school than middle and elementary school. A significant decline in suspensions in middle school students was apparent, a decrease of 36% from 2003 to 2005 (Chart 3). Expulsions for middle and elementary school students presented no statistically significant change. Of interest was the dramatic decline in expulsions for high school students by 40% (Chart 4).

Chart 3. Trends in Drug Related School Suspensions, Alaska, 2003-2005



Source: Alaska Department of Education & Early Development

Chart 4. Trends in Drug Related School Expulsions, Alaska, 2003-2005



Source: Alaska Department of Education & Early Development

Problem Statement: Tobacco Use

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 shorten lives of Alaskans more than all infectious diseases and lead to more deaths than alcohol and drug use.

Data Analysis

Deaths associated with tobacco use were the most prevalent of all substance-related deaths for Alaskans. One out of six 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 was 14- to 22-fold higher than the alcohol, drug, and chronic liver disease/cirrhosis, respectively. Alaska Natives have 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 1). Causes of death attributable to tobacco use include several types of cancer, cardiovascular disease, respiratory disease, and infant death (Table 2).

Table 1. Smoking Attributable Death* by Age, Gender, and Race, Alaska, 2001-2005

		0-24		25-64		65+		All Ages	
		Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Age Adjusted Rate ^{1,2}
Female	Asian	0	0.0	6	13.0*	12	40.4*	18	53.5*
	Black	0	0.0	11	52.1*	8	81.6*	19	133.7*
	Native	0	0.0	63	57.9	128	168.9	191	226.8
	White	0	0.0	234	40.6	424	131.8	658	172.5
	All Races	0	0.0	319	42.2	575	131.3	894	173.6
Male	Asian	0	0.0	18	45.5*	23	132.5	41	178.1
	Black	0	0.0	23	106.8	17	209.6*	40	316.4
	Native	0	0.0	107	103.3	184	327.1	291	430.4
	White	0	0.0	488	71.5	685	247.5	1,173	319.0
	All Races	0	0.0	638	75.4	911	252.9	1,549	328.4
Total	Asian	0	0.0	24	27.3	35	74.8	59	102.2
	Black	0	0.0	34	78.9	25	141.8	59	220.8
	Native	0	0.0	170	80.1	312	237.0	482	317.2
	White	0	0.0	722	57.5	1,109	184.3	1,831	241.9
	All Races	0	0.0	957	60.0	1,486	185.4	2,443	245.4

*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.

² All ages 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 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

Table 2. Number and Percent of Deaths Due to Select Causes Estimated to be Due to Tobacco Use, Alaska Residents, 2001-2005

Causes of Death Associated With Tobacco Use	Total Deaths	Tobacco Related Deaths	Percent Tobacco Related Deaths
Malignant Neoplasms	1,720	1,105	64%
Lip, Oral Cavity, Pharynx	65	45	69%
Esophagus	99	70	71%
Stomach	94	20	21%
Pancreas	196	48	24%
Larynx	8	7	88%
Trachea, Lung, Bronchus	1,046	858	82%
Cervix Uteri	24	3	13%
Kidney and Renal Pelvis	76	20	26%
Urinary Bladder	75	31	41%
Acute Myeloid Leukemia	37	3	8%
Cardiovascular Diseases	3,890	766	20%
Ischemic Heart Disease	2,008	453	23%
Other Heart Disease	864	126	15%
Cerebrovascular Disease	843	123	15%
Atherosclerosis	36	6	17%
Aortic Aneurysm	82	51	62%
Other Arterial Disease	57	7	12%
Respiratory Diseases	880	572	65%
Pneumonia, Influenza	213	37	17%
Bronchitis, Emphysema	94	82	87%
Chronic Airways Obstruction	573	453	79%
Infant Deaths	72	12	17%
Total	6,562	2,455	37%

Source: Alaska Bureau of Vital Statistics, April 2008.

Problem Statement: Alcohol- and Drug-Related Transportation Crashes

In 2006, Alaska ranked 21st out of the fifty states for motor vehicle deaths (based on 2005 statistics collected and assessed by the United Health Foundation). One out of four fatal motor vehicle crashes were alcohol related.

Data Analysis

Data alcohol- and drug-related transportation risk behavior and associated fatalities was provided through the Fatality Accident Reporting System (FARS), the Behavioral Risk Factor Surveillance System (BRFSS), and the Youth Risk Behavior Survey (YRBS). Most national averages were available for most recent year comparison.

Youth Risk Behavior Survey (YRBS)

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.

Between 2003 and 2007, the prevalence of drinking and operating a motor vehicle had not changed significantly. Overall, Alaska high school youth reported fewer alcohol-related motor vehicle events in 2007 than in previous years of the survey and continued below the national average. However one out of four youth still accompany a driver who had been drinking alcohol. Female high school students continued to self-report fewer drinking and driving episodes. A significant decline was noted for high school seniors who had fewer affirmations to questions relating alcohol consumption to motor vehicle use (Table 1 and 2.)

Table 1. Trends in Motor Vehicle Driving After Drinking Among Youth, by Gender, Alaska YRBS

		1999	2003	2007	U.S. 2005	U.S. 2007
Female	% Driving After Drinking	11.2	8.0	7.8	8.1	8.1
	% Passenger With a Drinking Driver	31.0	25.0	25.4	29.6	28.8
Male	% Driving After Drinking	15.9	14	11.3	11.7	12.8
	% Passenger With a Drinking Driver	29.2	24.7	21.5	27.2	29.5

Table 2. Trends in Motor Vehicle Driving After Drinking Among Youth, by Grade, Alaska YRBS

		1999	2003	2007	U.S. 2005	U.S. 2007
Grade 9	% Driving After Drinking	8.8	6.1	5.0	5.5	5.5
	% Passenger With a Drinking Driver	25.8	22.0	20.9	27.9	27.6
Grade 10	% Driving After Drinking	12.5	11.8	7.8	6.6	8.7
	% Passenger With a Drinking Driver	30.5	26.4	27.7	27.8	28.7
Grade 11	% Driving After Drinking	16.2	14.8	10.9	12.1	11.5
	% Passenger With a Drinking Driver	29.4	26.5	25.0	28.0	29.2
Grade 12	% Driving After Drinking	20.2	13.9	16.5	17.1	18.3
	% Passenger With a Drinking Driver	36.7	25.8	20.6	30.1	31.5

Behavior Risk Factor Surveillance Survey (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 BRFSS survey collected information pertaining to driving after drinking on even years. From 2000 to 2004, there appeared to be no significant change in adult Alaskans report of driving after drinking (Table 3 and 4.)

Table 3. Trends of Adults Driving After Drinking Among Adults, by Gender, Alaska BRFSS

		2000	2002	2004	U.S. 2004
Male	% Driving After Drinking	3.4	3.1	2.9	3.3
Female	% Driving After Drinking	1.1	1.4	1.3	0.9

Table 4. Trends of Adults Driving After Drinking Among Adults, by Age Group, Alaska BRFSS

		2000	2002	2004	U.S. 2004
Ages 18 thru 20	% Driving After Drinking	5.4	3.7	0.5	3.1
Ages 21 thru 29	% Driving After Drinking	4.8	2.8	1.8	4.3
Ages 30 thru 34	% Driving After Drinking	3.2	2.0	2.7	2.7
Ages 35 thru 54	% Driving After Drinking	1.5	2.7	2.8	2.0

Ages 55 thru 64	% Driving After Drinking	0.8	1.0	1.1	1.0
Ages 65 and over	% Driving After Drinking	0.1	0.7	0.4	

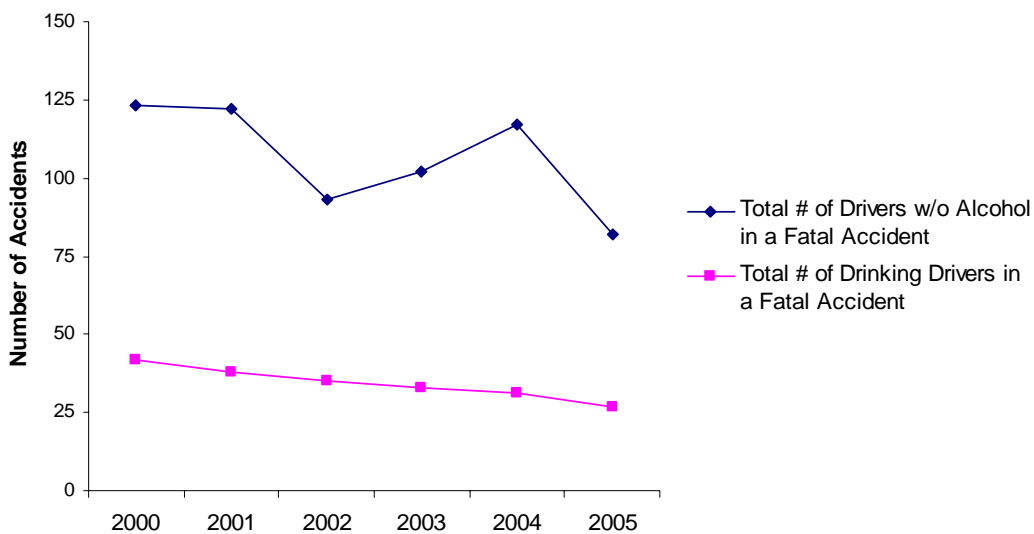
Fatal Accident Reporting System (FARS)

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 non-alcohol related motor vehicle events was somewhat variable, however the numbers drinking drivers involved in fatal motor vehicle episodes continued to decline between 2000 and 2005 (Table 5; Chart 1).

Table 5. Fatalities Due to Alcohol-Related Motor Vehicle Crashes, by Rate, FARS

Year	Fatal Crashes	Fatalities	Fatalities Due to Alcohol-Related Crashes			
			Alcohol-Related Fatal Crashes	Alcohol-Related Crashes	Percent Alcohol Related Crashes	Percent Alcohol Related Fatalities
2000	93	106	56	56	60	53
2001	80	89	42	47	52	53
2002	78	89	38	37	48	41
2003	89	100	36	37	40	37
2004	97	100	31	31	31	31
2005	67	73	26	37	38	50

Chart 1. Trends in Fatal Motor Vehicle Accidents, Alaska FARS



Beginning in 2002, Alaska rate for alcohol-related motor vehicle crashes fell below the national average (Table 6).

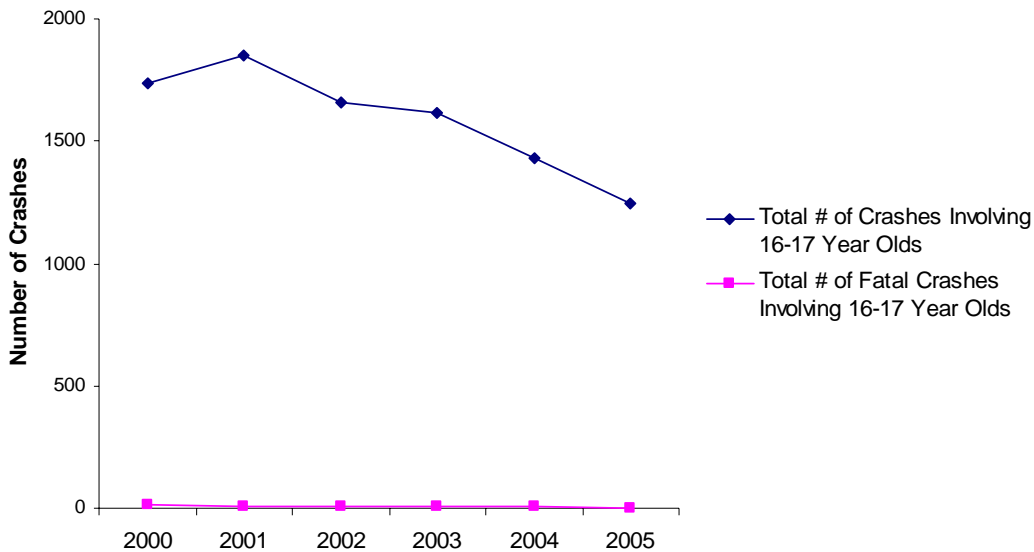
Table 6. Comparison of Fatalities Due to Alcohol-Related Motor Vehicle Crashes, by Rate, FARS

Year	Alaska Rate *	National Rate *	National/State Ratio
2000	8.9	6.2	1.44
2001	7.3	6.1	1.20
2002	5.7	6.1	0.94
2003	5.6	5.9	0.96
2004	4.7	5.8	0.81
2005	5.2	5.7	0.92

* Rate per 100,000 Population; rate calculation based on estimate population affected

The total number of crashes involving young Alaskan adults declined approximately 25% between 2000 and 2005, of which the number of fatal crashes involving 16 and 17 year olds remained statistically unchanged but significantly important (Chart 2).

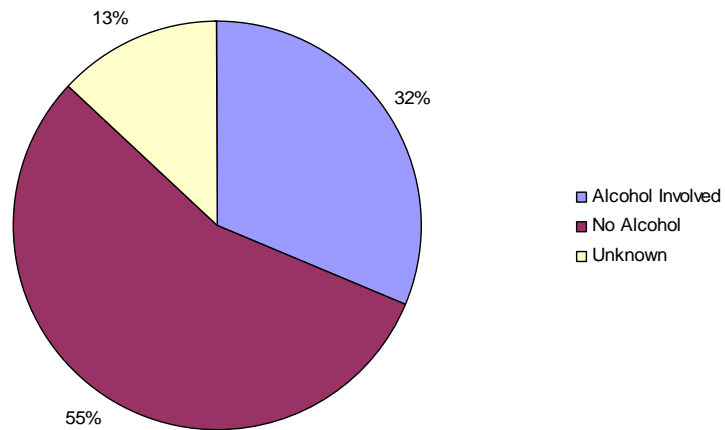
Chart 2. Trends in Crashes Involving Youth Ages 16 and 17 Year, Alaska FARS



Drowning and Recreational Boating Fatality Databases

Boating in Alaska can be 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. Between 2000 and 2004, 92 recreational boating fatalities were identified of which one-third were associated with alcohol use (Chart 3.) The majority (90%) of the victims were male.

Chart 3. Recreational Boating Fatalities Associated with Alcohol, Alaska, 2000-2004



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 2006 Annual Drug Report by Alaska Bureau of Alcohol and Drug Enforcement, Alaska's current drugs of choice (excluding tobacco) are 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 a leading cause of violent, suicidal, and injury-related deaths.

At this time, 108 communities have statutes prohibiting the sale, import, and/or possession of alcohol.

Data Analysis

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. In 2005, the suicide rate among males was three times higher than females. Suicide was the fourth leading cause of death among Alaska Natives, where highest rates are found among Native males and in communities in the northern Alaska (Table 1; Chart 1).

Table 1. Suicide Death by Age, Gender, and Race, Alaska, 2001-2005

		0-24		25-64		65+		All Ages	
		Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹	Deaths	Rate ¹
Female	Asian	2	**	2	**	0	0.0	4	**
	Black	0	0.0	2	**	0	0.0	2	**
	Native	29	21.2	26	20.5	1	**	56	18.9
	White	10	2.4*	70	10.8	3	**	83	7.0
	All Races	41	6.6	100	11.8	4	**	145	9.1
Male	Asian	2	**	5	**	1	**	8	10.8*
	Black	1	**	1	**	0	0.0	2	**
	Native	73	49.5	94	75.7	1	**	168	58.2
	White	53	12.1	225	31.3	34	46.1	312	27.0
	All Races	131	20.0	327	35.7	36	37.8	494	31.1
Total	Asian	4	**	7	7.8*	1	**	12	7.0*
	Black	1	**	3	**	0	0.0	4	**
	Native	102	35.9	120	47.8	2	**	224	38.6
	White	63	7.4	295	21.6	37	24.5	395	17.1
	All Races	172	13.5	427	24.2	40	19.9	639	20.2

¹ Rates are per 100,000 population in age group; all ages 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.

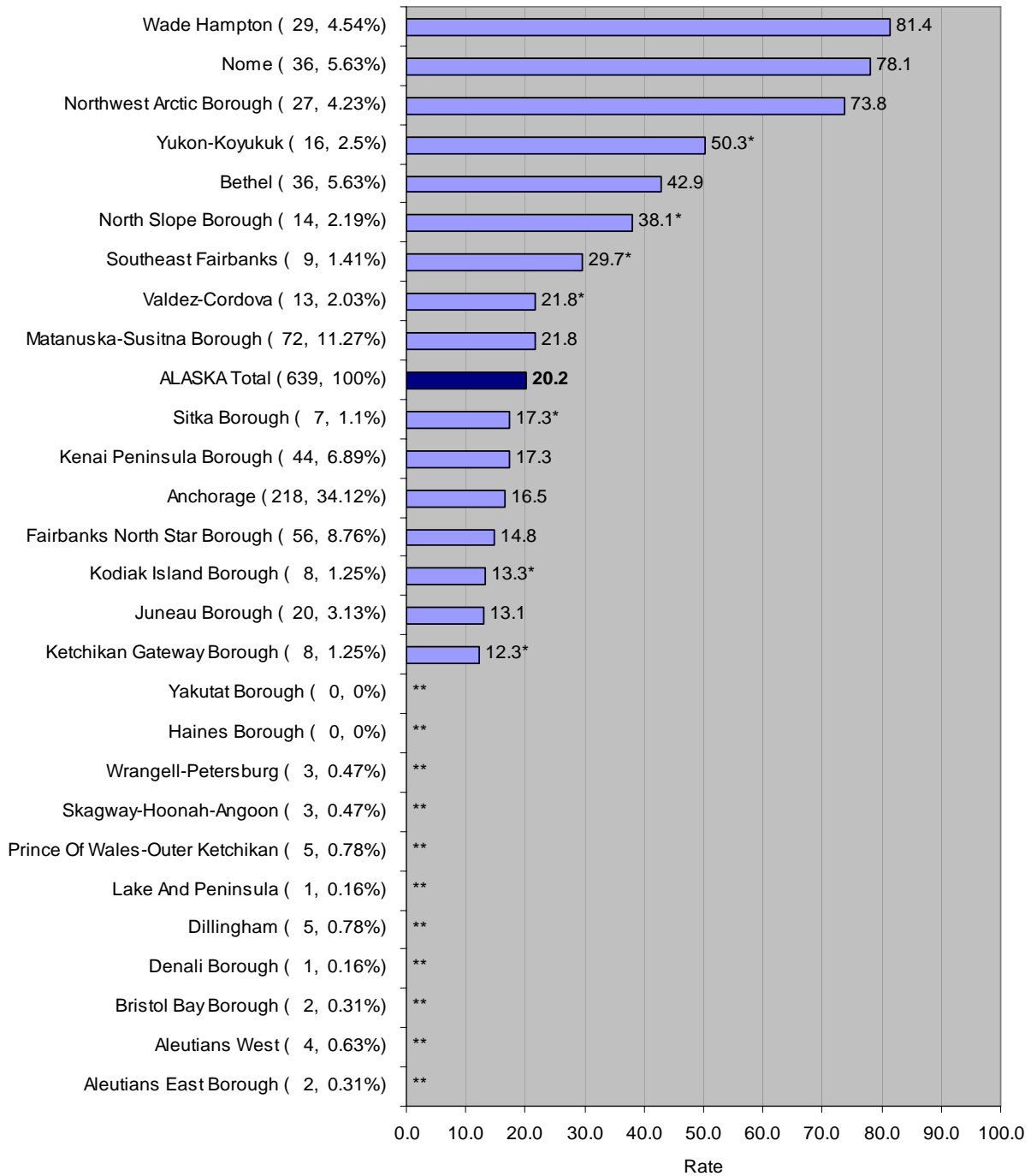
** Rates based on fewer than 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

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

Chart 1. Suicide Death and Rates¹ by Borough/Census Area, Alaska, 2001-2005

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



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 10 events are not reported.

Source: Alaska Bureau of Vital Statistics, April 2008.

Alaska Fatality Assessment and Control Evaluation (AK FACE)

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

In 2006, 27% of all 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 2-3).

Chart 2. Trends in Occupational Fatalities Associated with Alcohol Use, Alaska

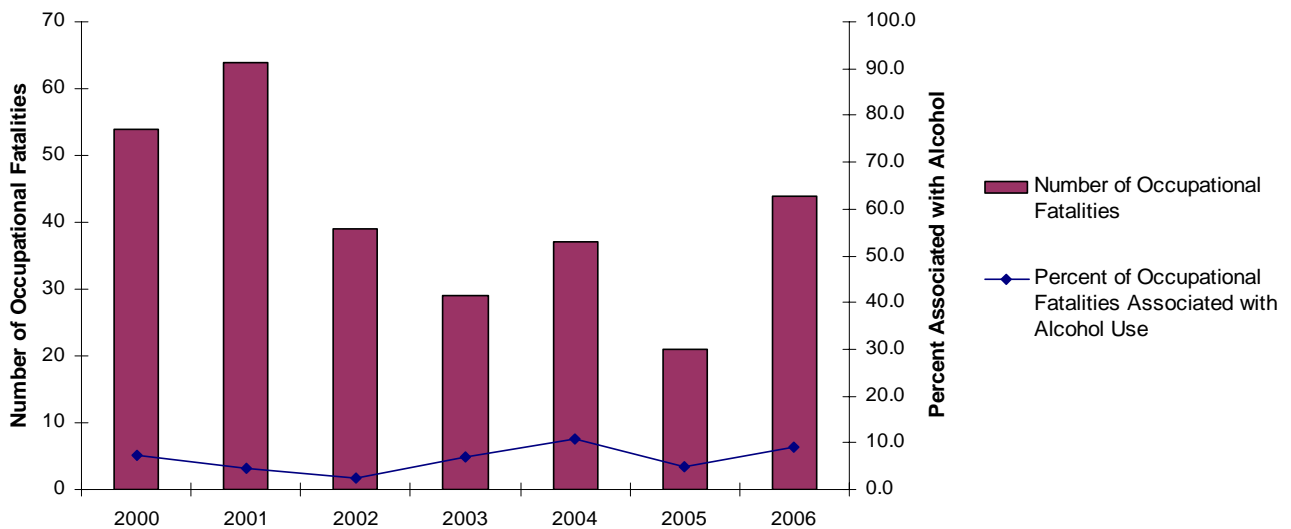
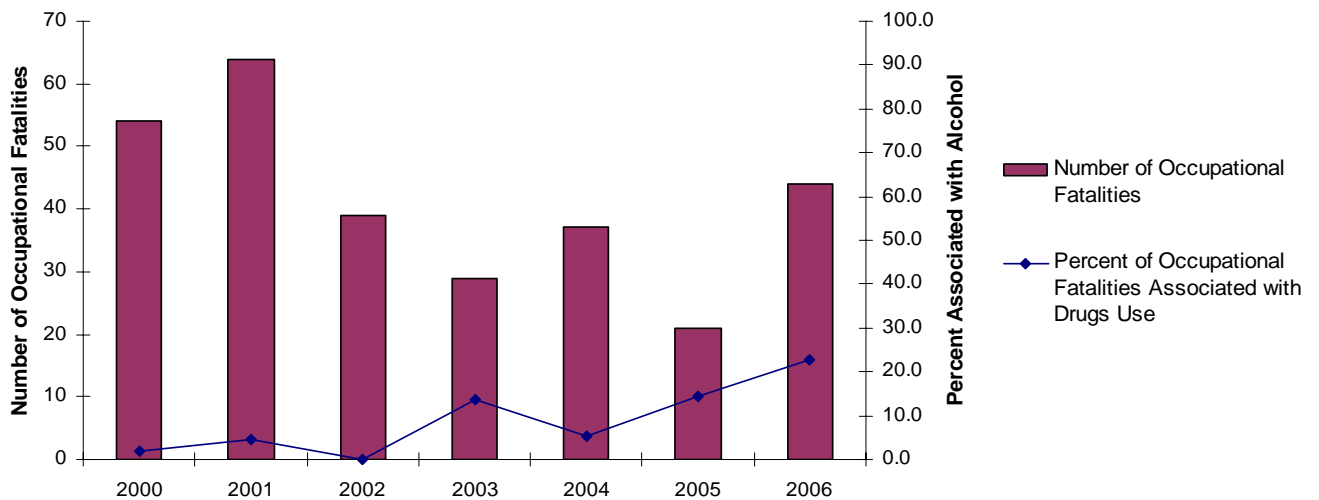


Chart 3. Trends in Occupational Fatalities Associated with Drug Use, Alaska



Alaska Violent Death Reporting System (VDRS)

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 2003-2006 Alaska VDRS data indicated one out three victims tested positive for alcohol and/or drug use (amphetamine, anti-depressants, cocaine, marijuana, opiates, or other drugs considered as evidence), which may have contributed to pre-event circumstances (Table 2).

Tests for alcohol were conducted for 50% of decedents; drug tests for amphetamines, cocaine, marijuana, and opiates were conducted for 48-49% of decedents. Twenty-two percent of decedents were tested for antidepressants. Toxicology results indicated that one-third of decedents who tested positive for alcohol were above the legal limit of 0.08% mg/dl, and one-fourth of decedents tested were positive for marijuana.

Table 2. Trends in Violent Death Associated with Substance Abuse, Alaska VDRS, 2003-2005

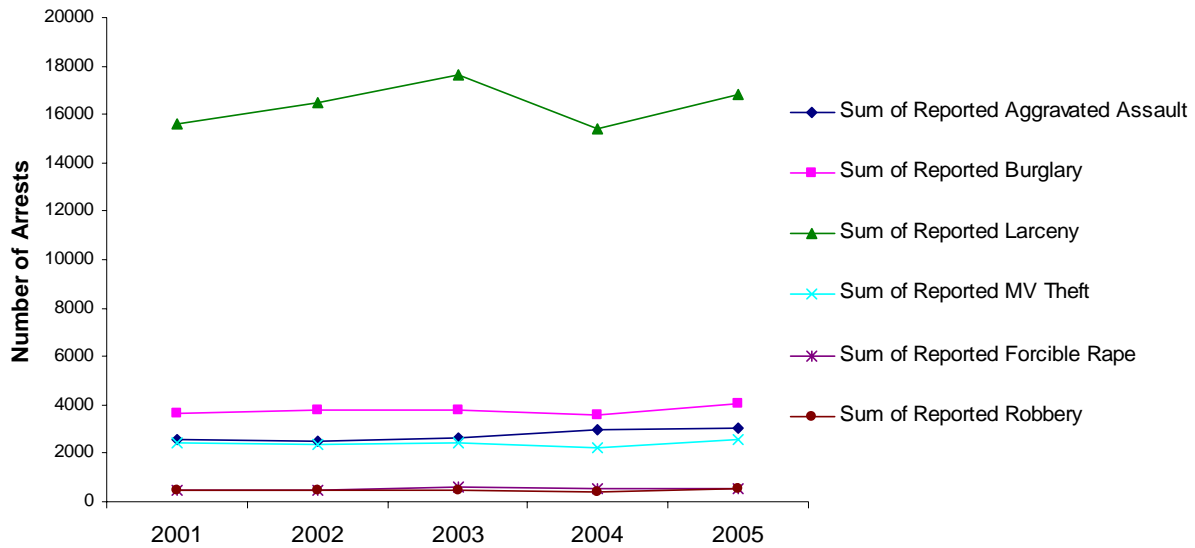
	2003-2005
	Percent Positive
Decedents Tested for Alcohol	33*
Decedents Tested for Cocaine	14
Decedents Tested for Opiates (inc. heroin and prescription pain killers)	11
Decedents Tested for Amphetamines	5
Decedents Tested for Antidepressants	11

* Count of positive tests for alcohol only included blood alcohol concentration of >0.08 mg/dl
Source: Alaska Violent Death Reporting System, 2003-2005 Summary Report.
<http://www.hss.state.ak.us/dph/ipems/AKVDRS/assets/AKVDRS.pdf>

Alaska Uniform Crime Report (UCR)

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 97% of these agencies contribute to the UCR. Reported crimes associated with substance abuse were based on crime index offenses that can be monitored over time. From 2001 to 2005, report of larceny was 4-fold greater than burglary. Report of forcible rape and robbery had the lowest reported activity (Chart 4).

Chart 4. Trends in Crime Associated with Substance Abuse, Alaska UCR



While the crime index totals by year were variable, a gradual increase was noted index crimes except for forcible rape (Table 3).

Table 3. Crime Index and Rate Variance, Alaska UCR 2004-2005

	Population	Total Offenses	Violent Crimes	Aggravated Assault	Burglary	Larceny-Theft	Forcible Rape	Robbery
Crime Index	+ 1.7	+ 9.2	+ 3.8	+ 2.6	+ 12.7	+ 9.1	- 4.2	+ 23.2
Crime Rate		+ 7.4	+ 2.1	+ 0.9	+ 10.8	+ 7.3	N/A	+ 21.2

In 2005, 1,562 Alaskan adults, ages 18 years and over, were arrested for drug offenses (sales, manufacture, and possession). Sixty-nine percent of these arrests were for drug possession, of which the most common offense was for marijuana possession (71%). The ratio of males arrested for drug sales/manufacture was nearly 3-fold greater than females. This pattern was consistent for drug possession where arrests of males were 4-fold greater than females (Chart 5, Table 4).

Chart 5. Trends in Drug Offenses, Adults - 18 Year of Age and Older, Alaska UCR

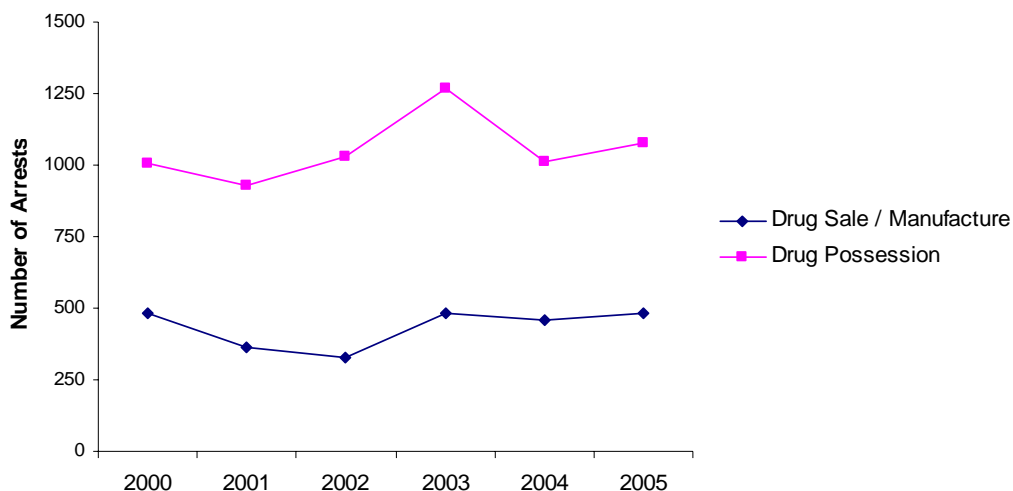


Table 4. Drug Arrests, Adults - 18 Year of Age and Over, by Gender, Alaska UCR

		2001	2002	2003	2004	2005
Drug Sales/ Manufacture	Female	98	81	95	131	128
	Male	266	249	390	329	356
Drug Possession	Female	175	191	252	173	215
	Male	751	841	1017	839	863

In 2005, 320 Alaskan juveniles, ages 17 years and under, were arrested for drug offenses (sales, manufacture, and possession). Eighty-two percent of these arrests were for drug possession, of which marijuana possession was the most common offense. Arrests of juvenile males for drug sales/manufacture were similar to adult offenders, 3-fold greater than juvenile females. This pattern was consistent for drug possession where arrests of juvenile males were 4-fold greater (Chart 6, Table 5).

Chart 6. Trends in Drug Offenses, Youth - 17 Year of Age and Under, Alaska UCR

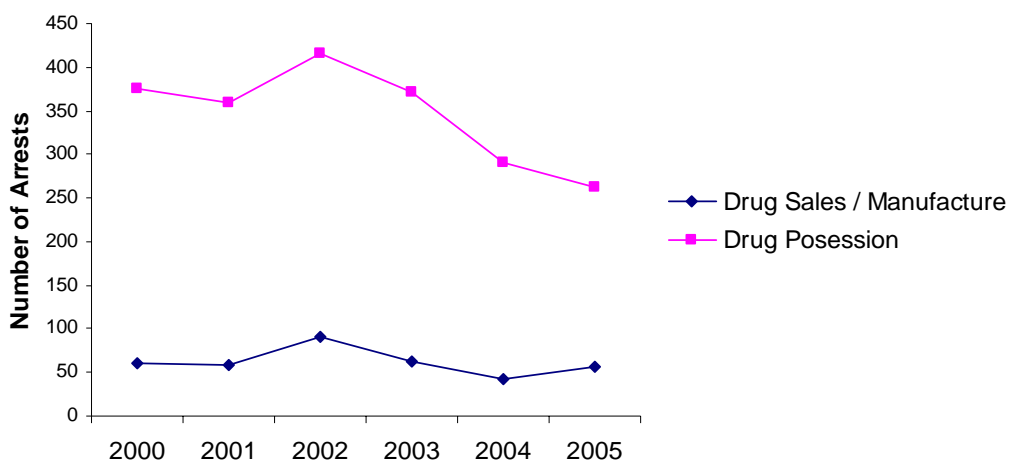


Table 5. Trends in Drug Arrests, Youth - 17 Year of Age and Under, by Gender, Alaska UCR

		2001	2002	2003	2004	2005
Drug Sales/ Manufacture	Female	11	11	18	15	15
	Male	47	80	44	27	42
Drug Possession	Female	74	89	102	77	63
	Male	285	326	269	214	200

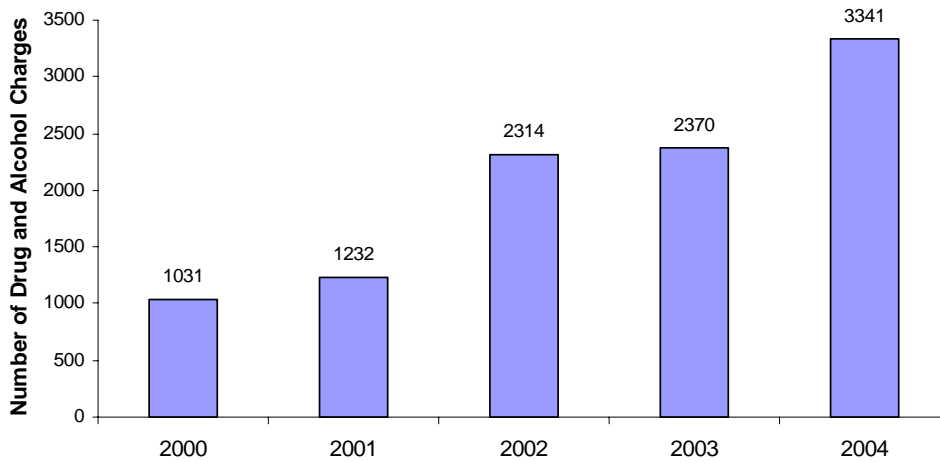
Juvenile Justice

Definition of juvenile offender:

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.

Juvenile correction facilities and programs are under the jurisdiction of the Alaska Division of Juvenile Justice (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 a 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. Between 2000 and 2004, the number of arrests and charges for juvenile offenders increased 3-fold as did the average number of charges per offender (Chart 7; Table 11).

Chart 7. Trends in Drug and Alcohol Charges for Juvenile Offenders, Alaska DJJ



Source: Alaska Division of Juvenile Justice, February 2007.

Table 6. Drug and Alcohol Referrals for Juvenile Offenders, Alaska DJJ

	Unduplicated Juveniles	Unduplicated Referrals	Referrals resulting in B1 orders	Total D&A Charges	Average # of charges per referral
2000	646	698	1	1,031	1.5
2001	620	678	1	1,232	1.8
2002	718	799	9	2,314	2.9
2003	711	752	12	2,370	3.2
2004	672	759	14	3,341	4.4
2005	651	739	12	3,580	4.8
2006	494	556	6	2,882	5.2
Total Summed	4512	4,981	55	16,750	3.4

Duplication between years 425

Source: Alaska Division of Juvenile Justice, February 2007.

Table 7. 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 2007.

Table 8. Drug and Alcohol Referral for Juvenile Offenders, by Race, Alaska DJJ

	2000	2001	2002	2003	2004
American Indian / Alaska Native	196	187	241	198	277
Asian / Pacific Islander	16	6	3	12	8
Black	38	21	23	25	28
Multi-Race	12	26	50	56	47
Other	3	2	3	10	8
White	411	425	467	438	380
Unknown	22	11	12	13	11

Source: Alaska Division of Juvenile Justice, February 2007.

Alaska Bureau of Alcohol and Drug Enforcement (ABADE)

Surveillance of methamphetamine problems in Alaska appeared conflicting in that report of charges and arrests and drug lab seized were declining. However, quantities of methamphetamine seized between 2004 and 2006 indicated a marked increase of its availability in Alaska (Table 6). According to the Alaska Bureau of Alcohol and Drug Enforcement (ABADE), Anchorage, Mat, 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.

Table 9. Trends of Methamphetamine Use in Alaska, ABADE

	2004	2005	2006
Methamphetamine Labs Seized	62	42	18
Methamphetamine-related Charges/Arrests	132	234	117
Methamphetamine Seized (grams)	1,759	2,783	7,971

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

Appendix A: Alaska Epidemiological Outcomes Workgroup Membership

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State of Alaska
Department of Corrections

Appendix B: Data Sources Considered

Division of Behavioral Health (internal):

- ❖ AK AIMS – 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 diagnostic data
- ❖ FAS Knowledge, Attitudes, Beliefs & Behaviors (KABB) Survey
- ❖ MH(BH)SIP data

Division of Behavioral Health (external):

- ❖ National Household Survey
- ❖ Uniformed Reporting System (URS)
- ❖ Treatment Episodes Data System (TEDS)
- ❖ Fatal Accident 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)—2005 did not receive weighted data, have data for 1995 and 2003
- ❖ 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 Trauma Registry (inpatient)
- ❖ Alaska Violent Death Registry
- ❖ Maternal Infant Mortality Review data
- ❖ Child Death/Fatality Review data
- ❖ 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 (Prosecutor's office)
- ❖ Justice Center (UAA)—ADAM Report; number ordered to alcohol assessment (Bob Langworthy and Brad Merstal)
- ❖ Judicial Council (Larry Cohen and Toni Morris)

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)
- ❖ Three (3) intensive therapeutic services (data rich) in Arizona, Wildwood and Hiland Mountain Correctional Centers
- ❖ Jail diversion data

Department of Public Safety:

- ❖ APSIN data
- ❖ Number of DUI's
- ❖ Alcohol/drug-related arrests

Department of Education and Early Development:

- ❖ Youth Risk Behavior Survey (YRBS)
- ❖ School Report Cards
- ❖ Graduation rates
- ❖ School/Student Profiles (every other year)
- ❖ Suspensions, Expulsions and Truancy related to alcohol, tobacco, drugs and violence (since 1999)

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 CPS cases involving Substance Abuse
- ❖ Child Advocacy Center data

Miscellaneous Data Sources:

- ❖ Veteran's Administration Information (DC)
- ❖ Veteran's Centers
- ❖ 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 (Jim Sellers contact)
- ❖ 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.
- ❖ GPRA
- ❖ Alaska Injury Prevention Center (suicide follow-back study)
- ❖ Drunk Driving (Random Survey)
- ❖ National Highway Traffic Safety Administration (DUIs, Underage Drinking, etc.)
- ❖ Crisis Lines – Careline Crisis Intervention (Fairbanks) and Providence (Anchorage)
- ❖ Hospital data – suicide attempts, discharge data
- ❖ 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)
- ❖ Grading Grown-ups (AASB & Becky Judd)
- ❖ Profiles of Student Life -- since 1995 by schools (AASB & Becky Judd)
- ❖ Domestic Violence Program data
- ❖ University of Alaska (CHSW, Justice Center, Center for Human Development, Institute for Circumpolar Health, Center for Substance Abuse)

Appendix C: Alaska Epidemiological Outcomes Indicators Considered

Alcohol Consumption Indicators:

30-Day alcohol use (YRBS), (BRFSS), (NSDUH)
Percent of students reporting drinking 5 or more drinks on at least one occasion in the past 30 days (YRBS), (NSDUH), (BRFSS)
Heavy drinkers (adult men having more than two drinks per day and adult women having more than one drink per day) (BRFSS)
Lifetime Alcohol Use (YRBS)
Age of first use of Alcohol (YRBS)
Percentage of students who during the past 30 days drove a car or other vehicle driven by someone who had been drinking alcohol (YRBS)
Percentage of students who during the past 30 days drove a car or other vehicle when they had been drinking alcohol (YRBS)
Percentage of adults aged 18 and older reporting driving after having “perhaps too much to drink” in the past 30 days (BRFSS)
Per capita consumption (all beverages), based on population >14 years (AEDS)
Percentage of students who had at least one drink of alcohol on school property on one or more of the past 30 days (YRBS)
Percentage of case sales (D.O.R.)
Percentage of cash sales (D.O.R.)
Percent of women reporting the use of alcohol during pregnancy (MCHB_DP)
Number of persons discharged from hospitals for alcoholic psychoses (as per ICD-10 codes) per 100,000 population
Number of persons discharged from hospitals for alcohol dependence (as per ICD-10 codes) per 100,000 population

Illicit Drug Consumption Indicators:

30-day marijuana use (YRBS), (NSDUH)
30-day cocaine use (YRBS)
30-day inhalant use (YRBS)
30-day any illicit drug use other than marijuana (NSDUH)
Lifetime marijuana use (YRBS)
Lifetime cocaine use (YRBS)
Lifetime inhalant use (YRBS)
Lifetime heroin use (YRBS)
Lifetime methamphetamine use (YRBS)
Lifetime ecstasy use (YRBS)
Percentage of students who took steroid pills/shots without a doctor’s prescription one or more times during their life (YRBS)
Percentage of students who tried marijuana for the first time before age 13 (YRBS)
Lifetime injecting drugs (YRBS)
Percentage of students who used marijuana on school property one or more times during the past 30 days (YRBS)
Percentage of students who were offered, sold, or given an illegal drug on school property during the past 12 months (YRBS)

Tobacco Consumption Indicators:

Percentage of students who smoke cigarettes on one or more of the past 30 days (YRBS), (NSDUH), (ATS)

Percentage of students who used chewing tobacco or snuff on one or more of the past 30 days (YRBS), (ATS)

Percentage of students who used any tobacco during the past 30 days (YRBS)

Percentage of students who smoked cigars, cigarillos, or little cigars on one or more of the past 30 days (YRBS)

Percentage of students who smoked two or more cigarettes per day on the days they smoked during the past 30 days (YRBS)

Percentage of adults aged 18+ who report smoking 100 cigarettes in their lifetime and now smoke everyday (BRFSS)

Percentage of students who smoked cigarettes on 20 or more of the past 30 days (YRBS)

Percentage of students who ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days (YRBS)

Percentage of students who ever tried cigarette smoking, even one or two puffs (YRBS)

Have you smoked at 100 cigarettes in your entire life (ATS)

Percentage of students reporting any use of cigarettes in their lifetime (BRFSS)

Percentage of students who smoked a whole cigarette for the first time before age 13 (YRBS)

Age of first use of cigarettes (ATS)

Number of packets of cigarettes sold per capita (SETD)

Percentage of students who smoked more than 10 cigarettes per day on the days that they smoked during the past 30 days (YRBS)

Of smokers: on average, how many cigarettes a day do you now smoke (ATS)

Of smokers: During the past 30 days, how many days did you smoke cigarettes (ATS)

Of smokers: on days when you smoked during the past 30 days, about how many cigarettes did you smoke a day? (ATS)

Percentage of births to mothers who smoked during pregnancy (PRAMS)

Percentage of students who used chewing tobacco or snuff on school property on one or more of the past 30 days (YRBS)

Percentage of students who smoked cigarettes on school property on one or more of the past 30 days (YRBS)

Percentage of students who were current smokers and have tried to quit smoking during the past 12 months (YRBS)

Alcohol Consequence Indicators:

Chronic liver disease/cirrhosis deaths per 100,000 population using ICD-10 codes (K70-K74), (BVS)

Suicides per 100,000 population using ICD-10 codes X85-Y09, Y87 (CDC_wonder), (WVR), (BVS)

The rate (100,000) of suicide deaths among youths aged 15-19 (BVS)

Homicides per 100,000 population using ICD-10 codes X85-Y09, Y87.1 (BVS)

Vehicle and traffic deaths per 100,000 population (BVS)

The death rate per 100,000 for unintentional injuries among children aged 14 years and younger due to motor vehicle crashes (BVS)

Death rate per 100,000 of non-fatal injuries due to motor vehicle crashes among children aged 14 and younger (BVS)

Rate of other unintentional injuries (ATR)

Unintentional accident deaths per 100,000 population (BVS)

The death rate per 10,000 due to unintentional injuries among children aged 14 and younger (BVS)
 Teen deaths by accident, homicides and suicide: (BVS)
 Teen Deaths all Causes: (BVS)
 Infant Mortality: (BVS)
 Child deaths: (BVS)
 The infant mortality rate per 100,000 live births (BVS)
 The child death rate per 100,000 children aged 1-14 (BVS)
 Percent of fatal motor crashes that are alcohol related (FARS), (NHTSA), (DOT)
 Alcohol related vehicle death rate (FARS), (NHTSA), (DOT)
 Percent of Alcohol involved drivers among all drivers in fatal crashes (FARS)
 Deaths caused by motor vehicle accidents (FARS)
 Percentage of injury crashes that are alcohol-related (NHTSA), (DOT)
 Percentage of non-fatal injuries that are alcohol-related (NHTSA), (DOT)
 Percentage of property damage that is alcohol-related (NHTSA), (DOT)
 Rate of non-fatal injuries caused by motor vehicle crashes (NHTSA)
 Rate of boating accidents per year (USCG)
 Total boating accidents per year (USCG)
 Total boating fatal accidents per year (USCG)
 Total boating fatalities per year (USCG)
 Number of boating injuries per year (USCG)
 Number of boating accidents per year (USCG)
 Number of boating fatalities with alcohol involvement (USCG)
 Number of boating injuries with alcohol involvement (USCG)
 Number of boating accidents with alcohol involvement (USCG)
 Number of violent crimes reported (DCI), (UCR)
 Number of murder, manslaughter reported (DCI), (UCR)
 Number of rapes reported (DCI), (UCR)
 Number of robberies reported (DCI), (UCR)
 Number of aggravated assaults reported (DCI), (UCR)
 Number of violent crimes arrests (DCI), (UCR)
 Number of murder, manslaughter arrests (DCI), (UCR)
 Number of rapes arrests (DCI), (UCR)
 Number of robberies arrests (DCI), (UCR)
 Number of aggravated assaults arrests (DCI), (UCR)
 DUI (DCI), (UCR)
 Liquor laws (DCI), (UCR)
 Drunkenness (DCI), (UCR)
 Total number of domestic violence incidents (DCI)
 Total number of domestic violence arrests (DCI)
 Percent of persons aged 12 and older meeting DSM_IV criteria for alcohol abuse or dependence (NSDUH)
 Percent of persons receiving treatment for alcohol dependency or alcohol-related disorders from licensed public treatment facilities, per 100,000 population (TEDS)
 Number of Alaska K12 alcohol related expulsions (ASB)
 Number of Alaska K12 alcohol related suspensions (ASB)

Illicit Drug Consequence Indicators:

Viral hepatitis death per 100,000 population (BVS)
 Rate of HIV deaths (BVS)

Malnutrition deaths per 100,000 population (BVS)
 Number of property crimes reported (DCI), (UCR)
 Number of burglaries reported (DCI), (UCR)
 Number of larceny reported (DCI), (UCR)
 Number of vehicle thefts reported (DCI), (UCR)
 Amount of arson reported (DCI), (UCR)
 Number of property crimes arrests (DCI), (UCR)
 Number of burglaries arrests (DCI), (UCR)
 Number of larceny arrests (DCI), (UCR)
 Number of vehicle thefts arrests (DCI), (UCR)
 Amount of arson arrests (DCI), (UCR)
 Drug abuse violations (DCI)
 Drug manufacture violations (DCI)
 Drug possession violations (DCI)
 Number of Alaska K12 drug related expulsions (ASB)
 Number of Alaska K12 drug related suspensions (SDFS)
 Number of EMS medical response (drug overdose) (EMSP)
 Reported AIDs cases and annual rates per 100,000 (HIV/AIDS)
 Estimated numbers of cases and rates (per 100,000 population) of AIDS (Population +13)
 (HIV/AIDS)
 DEA drug violation arrests (DEA)
 Controlled substance arrests/charges (cocaine) (DCI)
 Controlled substance seizures/purchases (cocaine) (DCI)
 Controlled substance seizures/purchase (crack cocaine) (DCI)
 Highway patrol cocaine seizures (DCI)
 Highway patrol cocaine cases (DCI)
 Federal drug seizures (cocaine) (DEA)
 Controlled substance arrests/charges (marijuana) (DCI)
 Controlled substance seizures/purchases (marijuana) (DCI)
 Controlled substance seizures/purchase (hashish) (DCI)
 Controlled substance seizures/purchase (sinsemilla plants) (DCI)
 Controlled substance seizures/purchase (marijuana plants) (DCI)
 Controlled substance seizures/purchase (ditchweed/wild plants) (DCI)
 Highway patrol marijuana seizure (DCI)
 Highway patrol marijuana cases (DCI)
 Federal drug seizures (marijuana) (DEA)
 Highway patrol hashish seizure (DCI)
 Highway patrol hashish cases (DCI)
 Controlled substance arrests/charges (methamphetamine) (DCI)
 Controlled substance seizures/purchases (methamphetamine) (DCI)
 Highway patrol methamphetamine seizure (DCI)
 Highway patrol methamphetamine cases (DCI)
 Federal drug seizures methamphetamine (DEA)
 Controlled substance seizures/purchases (clandestine labs) (DCI)
 Highway patrol clandestine labs seizures (DCI)
 Number of meth clandestine labs seizures (DPS)
 Federal drug seizures (labs – DEA, State, local) (DPS)
 Number of treatment facilities in Alaska (AK AIMS)
 Number of treatment beds funded by Alaska (AK AIMS)

Tobacco Consequence Indicators:

Lung cancer deaths per 100,000 population (BVS)
Chronic lower respiratory diseases per 100,000 population (BVS)
Cardiovascular deaths per 100,000 population (BVS)
Percentage of low birth rate babies (WCFH)
Percent of live births weighing less than 2,500 g. (WCFH)
Percent of singleton births weighing less than 2,500 g. (WCFH)
Percent of births weighing less than 1,500 g. (WCFH)
Percent of singleton births weighting less than 1,500 g. (WCFH)
Adults who have been told they currently have asthma (BRFSS)
Adults who have ever been told they have asthma (BRFSS)

Combination:

Of students who had sexual intercourse, the percentage who drank alcohol or used drugs before last sexual intercourse (YRBS)
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 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)
Teen Births (15-17): (KC), (BVS)
Teen Births (18-19): (BVS)
Teen Births (15-19): (BVS)
Percentage of high school dropouts (ASB)
Persons incarcerated in juvenile detention facilities: rate per 100,000 (DJJ)
Adoptions of Children with Public Child Welfare Agency Involvement (BVS)
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)
Maltreatment rates (OCS), (DSDS)
Percentage of children in foster care maltreated by foster care provider (OCS)
Rate of children per 100,000 population who received preventive services (DHSS)
Offenses against family and children (APSIN)
Number of children with substantiated allegations of abuse (OCS)
Number of substantiated allegations of abuse (DJJ), (DOL)
Rate of death from malnutrition (BVS)
Number of Alaska K12 alcohol and drug related suspensions (ASB)
The neonatal mortality rate per 100,000 live births (BVS), (WCFH)
The post-neonatal mortality rate per 100,000 live births (BVS), (WCFH)
The perinatal mortality rate per 1,000 live births plus fetal deaths (BVS), (WCFH)
Rate per 1,000 women aged 15-19 years with a reported case of Chlamydia (EPI)
Rate per 1,000 women aged 20-44 years with a reported case of Chlamydia (EPI)

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 to hospital ER for alcohol related injuries (as per ICD-10 codes) per 100,000 population

Rate of fetal alcohol syndrome per 100,000 live births

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+

Appendix D: Major Measures of Alcohol, Illicit Drug, and Tobacco Use, Abuse, and Dependency

Alcohol/Illicit Drug/Tobacco Use/Consumption	Youth, Adult, Both	Data Source
Age of first use	Youth	YRBS
Use before 13 years of age	Youth	YRBS
Binge drinking	Both	YRBS, BRFSS
Tobacco sales		Tobacco Sales
Alcohol sales	Both	Alcohol Sales
Communities with restricted alcohol sales		AK ABAD
Alcohol use/abuse/dependence	Both	NSDUH, YRBS
Marijuana/drug use/abuse/dependence	Both	NSDUH
Tobacco Use	Both	YRBS, BRFSS
Driver of/Passenger in motor vehicle after drinking	Both	YRBS, BRFSS
Alcohol/Illicit Drug/Tobacco Consequence	Youth, Adult, Both	Data Source
Minor consuming and possession arrests/convictions	Youth	DJJ
Referrals to DJJ for alcohol/drug treatment	Youth	DJJ
DUI	Both	DJJ, Courts
Fatal motor vehicle crashes	Both	FARS
Driver positive for alcohol/drugs	Both	FARS
Alcohol/drug manufacture/possession/sales arrests	Both	UCR
Unintentional injury	Both	ATR, AK FACE
Hospitalization for alcohol/drug	Both	HDDS
Suicide	Both	BVS, AK VDRS
Homicide	Both	BVS, AK VDRS
Undetermined cause of death related to alcohol/drugs	Both	BVS, AK VDRS
Occupational death related to alcohol/drugs	Adult	AK FACE
Firearm injuries	Both	Epi
Firearm deaths	Both	BVS, AK VDRS
Alcohol/drug/tobacco related mortality	Both	BVS, NCHS
Poisoning	Both	AK PCP
Prenatal exposure	Both	PRAMS, ABDR, MCH
Arrests for crimes have high correlation to alcohol/drugs	Both	UCR

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

Productivity

- School, work, extracurricular activities
- Education benchmarks
- Suspension/expulsion for alcohol/drugs

Data Source

CSR
DEED
DEED

Security

- Homelessness
- Domestic/family/intimate partner violence

AK VDRS

- Poverty
- Child abuse reports
- Rape/sexual assault

DOL-RA

YRBS

Social Connectedness

- Spirituality
- Supportive adult(s) in life

YRBS

Health

- STD rate
- Pregnancy rate
- Sexual activity
- Wellness
- Violence-bullying

Epi

YRBS

YRBS

YRBS

Life Domain Issues - Adult

Productivity

- Work, subsistence, activities
- Loss of productivity

Data Source

CSR
DOL-RA

Security

- Homelessness
- Domestic/family/intimate partner violence

AK VDRS
PRAMS

- Poverty
- Rape/sexual assault

CDV
DOL-RA
UCR

Social Connectedness

- Spirituality

Health

- STD rate
- Pregnancy rate
- Nutrition
- Wellness
- Exercise

Epi

BRFSS

BRFSS

BRFSS

Appendix E: Alaska Population Data

Table 1. Annual Components of Population Change, Alaska, 2000-2006

July 1-June 30	End of Period Population	Population Change	Average Annual Rate of Change	Components of Change			
				Births	Deaths	Natural Increase	Net Migrants
2000-2001	632,241	4,708	0.75	9,980	2,934	7,046	(2,338)
2001-2002	640,544	8,303	1.3	9,892	3,075	6,817	1,486
2002-2003	647,747	7,203	1.12	10,025	3,107	3,918	285
2003-2004	656,834	9,087	1.39	10,301	3,060	7,241	1,846
2004-2005	663,253	6,419	0.97	10,351	3,112	7,239	(820)
2005-2006	670,053	6,800	1.02	10,258	2,948	7,310	(510)

Source: U.S. Census Bureau and the Alaska Department of labor and Workforce Development, Research and Analysis Section

Table 2. Annual Components of Populations by Census Areas, Alaska, 2000-2006

	Number	Percent
TOTAL POPULATION	626,932	100.0
SEX AND AGE		
Male	324,112	51.7
Female	302,820	48.3
Under 5 years	47,591	7.6
5 to 9 years	53,771	8.6
10 to 14 years	56,661	9.0
15 to 19 years	50,094	8.0
20 to 24 years	39,892	6.4
25 to 34 years	89,473	14.3
35 to 44 years	114,049	18.2
45 to 54 years	94,952	15.1
55 to 59 years	27,423	4.4
60 to 64 years	17,327	2.8
65 to 74 years	22,507	3.6
75 to 84 years	10,558	1.7
85 years and over	2,634	0.4
Median age (years)	32.4	(X)
18 years and over	436,215	69.6
Male	226,111	36.1
Female	210,104	33.5
21 years and over	410,474	65.5
62 years and over	45,300	7.2
65 years and over	35,699	5.7
Male	16,724	2.7

Female	18,975	3.0
RACE		
One race	592,786	94.6
White	434,534	69.3
Black or African American	21,787	3.5
American Indian and Alaska Native	98,043	15.6
Asian	25,116	4.0
Asian Indian	723	0.1
Chinese	1,464	0.2
Filipino	12,712	2.0
Japanese	1,414	0.2
Korean	4,573	0.7
Vietnamese	814	0.1
Other Asian ¹	3,416	0.5
Native Hawaiian and Other Pacific Islander	3,309	0.5
Native Hawaiian	695	0.1
Guamanian or Chamorro	227	0.0
Samoan	1,670	0.3
Other Pacific Islander ²	717	0.1
Some other race	9,997	1.6
Two or more races	34,146	5.4
<i>Race alone or in combination with one or more other races ³</i>		
White	463,999	74.0
Black or African American	27,147	4.3
American Indian and Alaska Native	119,241	19.0
Asian	32,686	5.2
Native Hawaiian and Other Pacific Islander	5,515	0.9
Some other race	15,151	2.4
HISPANIC OR LATINO AND RACE		
Total population	626,932	100.0
Hispanic or Latino (of any race)	25,852	4.1
Mexican	13,334	2.1
Puerto Rican	2,649	0.4
Cuban	553	0.1
Other Hispanic or Latino	9,316	1.5
Not Hispanic or Latino	601,080	95.9
White alone	423,788	67.6
RELATIONSHIP		
Total population	626,932	100.0
In households	607,583	96.9
Householder	221,600	35.3
Spouse	116,318	18.6
Child	206,127	32.9
Own child under 18 years	174,113	27.8
Other relatives	24,481	3.9
Under 18 years	10,808	1.7
Nonrelatives	39,057	6.2
Unmarried partner	16,568	2.6
In group quarters	19,349	3.1
Institutionalized population	4,824	0.8
Noninstitutionalized population	14,525	2.3
HOUSEHOLDS BY TYPE		

Total households	221,600	100.0
Family households (families)	152,337	68.7
With own children under 18 years	88,484	39.9
Married-couple family	116,318	52.5
With own children under 18 years	63,245	28.5
Female householder, no husband present	23,937	10.8
With own children under 18 years	17,243	7.8
Nonfamily households	69,263	31.3
Householder living alone	52,060	23.5
Householder 65 years and over	8,985	4.1
Households with individuals under 18 years	95,129	42.9
Households with individuals 65 years and over	26,349	11.9
Average household size	2.74	(X)
Average family size	3.28	(X)
HOUSING OCCUPANCY		
Total housing units	260,978	100.0
Occupied housing units	221,600	84.9
Vacant housing units	39,378	15.1
For seasonal, recreational, or occasional use	21,474	8.2
Homeowner vacancy rate (percent)	1.9	(X)
Rental vacancy rate (percent)	7.8	(X)
HOUSING TENURE		
Occupied housing units	221,600	100.0
Owner-occupied housing units	138,509	62.5
Renter-occupied housing units	83,091	37.5
Average household size of owner-occupied unit	2.89	(X)
Average household size of renter-occupied unit	2.49	(X)

Source: U.S. Census Bureau and the Alaska Department of labor and Workforce Development, Research and Analysis Section

Table 3. Annual Laborforce, Employment, and Unemployment for Alaska 2000-2006

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	327,078	303,883	23,195	7.1
2003	332,466	306,971	25,495	7.7
2004	335,679	310,895	24,784	7.4
2005	339,305	316,289	23,016	6.8
2006	346,769	323,531	23,238	6.7

Source: U.S. Census Bureau and the Alaska Department of labor and Workforce Development, Research and Analysis Section

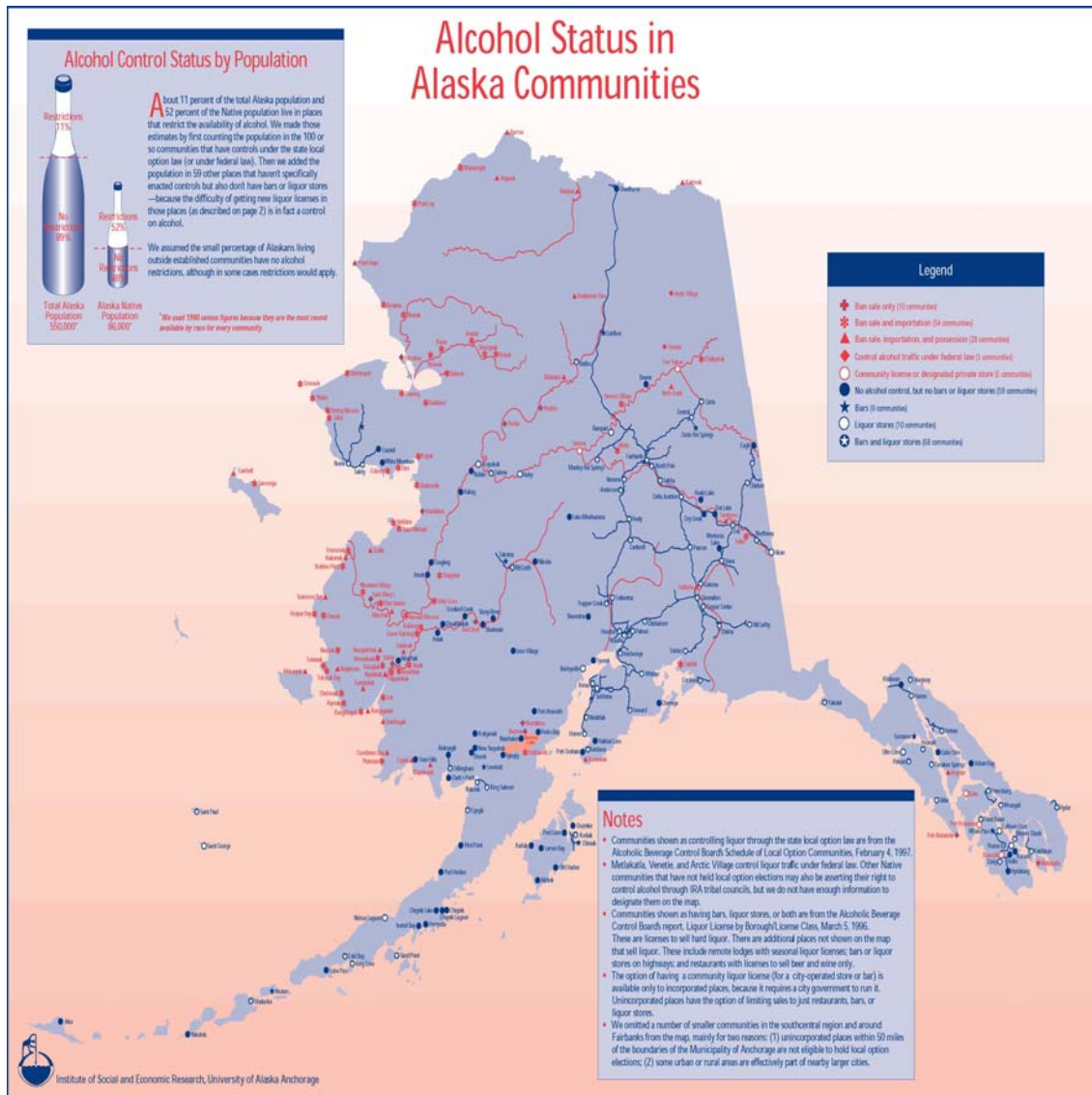
Table 4. Labor Force, Unemployment and Employment Statistics, by Borough and Census Area, Alaska

	Labor Force		Unemployment		Rate		Employment	
	2006	2005	2006	2005	2006	2005	2006	2005
Statewide	337,521	338,850	26,116	23,418	7.7	6.9	311,405	315,432
Anchorage/Mat-Su MSA*	186,032	188,635	11,839	10,543	6.4	5.6	174,193	178,092
Municipality of Anchorage	150,167	152,431	8,668	7,765	5.8	5.1	141,499	144,666
Mat-Su Borough	35,865	36,204	3,171	2,778	8.8	7.7	32,694	33,426
Gulf Coast Region	34,225	33,890	3,597	3,476	10.50%	10.30%	30,628	30,414
Kenai Peninsula Borough	23,700	23,897	2,557	2,249	10.8	9.4	21,143	21,648
Kodiak Island Borough	6,054	5,441	465	734	7.7	13.5	5,589	4,707
Valdez-Cordova CA	4,471	4,552	575	493	12.9	10.8	3,896	4,059
Interior Region	50,978	52,318	3,959	3,426	7.80%	6.50%	47,019	48,892
Denali Borough	795	819	134	110	16.9	13.4	661	709
Fairbanks MSA*	43,721	45,072	2,993	2,592	6.8	5.8	40,728	42,480
Southeast Fairbanks CA	3,526	3,424	411	356	11.7	10.4	3,115	3,068
Yukon-Koyukuk CA	2,936	3,003	421	368	14.3	12.3	2,515	2,635
Northern Region	10,841	11,132	1,160	1,082	10.70%	9.70%	9,681	10,050
Nome Census Area	3,884	3,939	504	467	13	11.9	3,380	3,472
North Slope Borough	3,488	3,683	324	295	9.3	8	3,164	3,388
Northwest Arctic Borough	3,469	3,510	332	320	9.6	9.1	3,137	3,190
Southeast Region	37,139	37,477	3,342	2,931	9.00%	7.80%	33,797	34,546
Haines Borough	1,022	1,102	148	135	14.5	12.3	874	967
Juneau Borough	17,949	18,008	1,075	968	6	5.4	16,874	17,040
Ketchikan Gateway Borough	7,011	7,118	633	547	9	7.7	6,378	6,571
Pr. of Wales-Outer Ketchikan	2,372	2,431	421	387	17.7	15.9	1,951	2,044
Sitka Borough	4,446	4,447	304	257	6.8	5.8	4,142	4,190
Skagway-Hoonah-Angoon CA	1,502	1,475	321	299	21.4	20.3	1,181	1,176
Wrangell-Petersburg CA	2,585	2,618	389	295	15	11.3	2,196	2,323
Yakutat Borough	252	278	51	43	20.2	15.5	201	235
Southwest Region	18,305	15,398	2,219	1,960	12.10%	12.70%	16,086	13,438
Aleutians East Borough	1,352	548	108	104	8	19	1,244	444
Aleutians West Census Area	3,972	1,900	214	191	5.4	10.1	3,758	1,709
Bethel Census Area	7,292	7,248	979	860	13.4	11.9	6,313	6,388
Bristol Bay Borough	456	637	74	64	16.2	10	382	573
Dillingham Census Area	1,785	1,854	210	189	11.8	10.2	1,575	1,665
Lake & Peninsula Borough	853	595	101	73	11.8	12.3	752	522
Wade Hampton CA	2,595	2,616	533	479	20.5	18.3	2,062	2,137

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

Appendix F: Alaska Communities Restricting Alcohol

In the late 1970s, the Alaska Legislature passed a “local option” law to help communities to combat alcohol abuse and its related problems. The local option law allows communities to vote on alcohol restrictions as “dry”, “damp”, or “wet”. Dry communities prohibit possession of alcohol. It can not be legally imported, sold, produced, or consumed. Damped communities limit the amount of alcohol that can be possessed for personal use. Each community sets its own limitation on the type and amount of alcohol that can be imported and sold. In addition, the community determines its own penalties for violation, of which most are a Class C felony for illegal import and sales. Wet communities restrict sales to liquor and grocery stores and to restaurants and bars that serve alcohol.



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