

ALASKA VIOLENT DEATH REPORTING SYSTEM

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Additional information pertaining to the Alaska Violent Death Reporting System (AK VDRS) and a link to the National Violent Death Reporting System (NVDRS) are available at www.epi.hss.state.ak.us/injury/programs.htm

This revised publication includes correction of reported blood alcohol concentration units from mg/dL to g/dL noted on pages ix, 7, 14, and 21.

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As additional data is collected and analyzed, supplemental reports will be disseminated through the Section of Epidemiology website and publications such as the Alaska Division of Public Health Epidemiologic Bulletin.

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EXECUTIVE SUMMARY

The Alaska Violent Death Reporting System 2003-2008 Summary report provides a detailed summary of six years of data concerning all types of violent deaths collected by the Alaska Violent Death Reporting System (AK VDRS).

The AK VDRS is a comprehensive, linked reporting system that collects and centralizes information on violent deaths from a variety of sources. The AK VDRS creates a clearer picture of the circumstances related to violent deaths, aiding prevention efforts and policy development at the state and community levels. The AK VDRS allows health officials to monitor suicides more accurately among specific populations, and better understand and possibly prevent suicides.

The AK VDRS captures information such as mental health treatment status, physical and mental health problems and diagnoses, employment and financial status, relationship and emotional crisis, legal issues, and toxicological results of alcohol, antidepressants, and other drugs at the time of death. The data provides information on an individual's condition and mental state at death. It also provides a better understanding of the personal and environment characteristics in order to develop and implement prevention programs.

The report shows the majority of violent deaths were suicide.

AK VDRS collects data regarding violent deaths from death certificates, medical examiner reports, law enforcement reports and other health and legal documents. AK VDRS links multiple source data documents to enable prevention specialists to better understand each violent death. Prior to funding of the AK VDRS, single data sources provided limited information from which to understand patterns and the circumstances surrounding violent deaths.

The report shows the majority of violent deaths were suicide (64.5%), followed by homicide (18.1%), violent death of undetermined intent (3.5%), unintentional firearm deaths (2.8%), and legal intervention (1.0%). Other findings include:

Overview of Deaths due to Violence

- In 2003-2008, there were 1347 violent deaths in Alaska, accounting for 7% of all deaths in Alaska and a combined rate of 33.7 violent deaths per 100,000 persons.
- Suicide accounted for the highest rate of violent death (21.7 per 100,000 persons), followed by the combined rates for homicide/legal intervention (6.4 per 100,000 persons) and undetermined intent and unintentional firearm deaths (5.5 per 100,000 persons, respectively).
- Highest rates by age group were found among children aged <1 year and adults aged 20-29 years (84.0 and 59.9 per 100,000 persons, respectively).

Suicide

- In 2003-2008, there were 869 suicides in Alaska, which account for nearly two-thirds (64.5%) of all violent deaths.
- Alaska's suicide rate (21.7 per 100,000 persons) was almost three times higher than that for the lowest of the 17 participating NVDRS states.
- A higher proportion of suicide occurred in communities in the Northern and Southwest regions of the State.
- The majority of suicides involved males (33.9 per 100,000 persons). The overall male suicide rate was nearly 4 times higher than the rate for females (9 per 100,000 persons) and was highest (69.4 per 100,000 persons) for males between the ages of 20-29.
- Suicide was the fourth leading cause of death among Alaska Natives, where highest rates were among Native males (60.7 per 100,000 persons) and females (19.7 per 100,000 persons).
- Female decedents were nearly twice as likely to have a diagnosis or history of treatment for mental illness (39.8%) compared to male decedents (21.7%).
- Current depressed mood was identified in 285 (32.8%) cases.

- Of all suicides, 253 (29.1%) decedents left a suicide note.
- One-third disclosed their intent (270, 31.1%) of which less than half disclosed their intent in writing.
- Of the decedents tested for blood alcohol concentration (BAC), 292/360 (77.9%) had a BAC of >0.08 g/dL (the legal limit in the majority of states).

Homicide

- In 2003-2008, there were 244 homicides in Alaska.
- Homicide rate in males (8.0 per 100,000 persons) was higher than females (4.1 per 100,000 persons), respectively.
- The majority of homicides involved males aged 20-39 years, where the highest rate was among males aged 20-29 years (15.7 per 100,000 persons). Homicide rates among females were higher than males for age groups 0-9 years and 70+.
- The highest rates were found among Black males (28.9 per 100,000 persons) followed by Alaska Native males (11.4 per 100,000 persons) and Asian/Pacific Islander males (11.1 per 100,000 persons).
- Numbers of homicide were higher in the urban areas such as Anchorage/Mat-Su, however homicide rates were highest in the Northern and Southwest regions of Alaska.
- Decedents who tested positive for alcohol (106/230), 87 (82.1%) showed a blood alcohol concentration (BAC) of >0.08 g/dL (the legal limit in the majority of states).

Weapons

- Half of all violent deaths involved a firearm (45.9%); poisoning accounted for one-fourth of all violent deaths (24.5%).
- The primary weapon in the majority of deaths among males was a firearm (633, 62.6%).
- The primary weapon in the majority of deaths among females were similarly distributed between firearm (88, 28.4%), poisoning (74, 23.9%), and hanging/strangulation/ suffocation (65, 21.0%).

Location

- A residence (including a driveway, porch, or yard) was the most common place of injury (71.4%).

Toxicology

- Testing for alcohol and drugs (prescribed and illicit) were conducted for 60% of decedents.
- Alcohol and marijuana were the most common substances testing positive (26.7% and 11.6%, respectively) among all decedents.

Epidemiologic information from the AK VDRS has helped to target improvements for in-state forensic toxicological capabilities and strengthen public health and law enforcement communications and infrastructure. Activities supported by AK VDRS include—

- Alaska Substance Abuse Epidemiologic Outcomes Workgroup
- Alaska Suicide Prevention Council
- Alaska's Child Fatality and Child Death Reviews
- Alaska Native Tribal Health
- University of Alaska-Justice Center

As additional data is collected and analyzed, supplemental reports will be disseminated through the Section of Epidemiology website and publications such as the Alaska Division of Public Health Epidemiologic Bulletin.

INTRODUCTION

Background on National Violent Death Reporting System ¹

Violence against others or oneself is a major public health problem in the United States, claiming 50,000 lives each year. It is a particular problem for the young: homicide was the second and suicide was the third leading cause of death for Americans 1 to 34 years of age in 2001.

Given the importance of the problem, it is noteworthy that no national surveillance system for violence existed in the United States. In contrast, the federal government has supported extensive data collection efforts. For example, during the past 30 years critical details of fatal motor vehicle crashes about 40,000 deaths among U.S. residents annually. The result of that effort has been a better understanding of the risk factors for motor vehicle deaths – information that has helped to target safety improvements that have led to a significant decline in motor vehicle fatalities since the 1970s.

Public health leaders and others were aware of the long-standing gap in information since 1989. In 1999, the Institute of Medicine recommended that CDC develop a fatal intentional injury surveillance system. They supported the National Violent Injury Statistics Systems (NVISS). NVISS has been administered by the Harvard Injury Control Research Center and includes 12 participating universities, health departments and medical centers.

In 2000, dozens of medical associations, suicide prevention groups, child protection advocates, and family violence prevention organizations joined a coalition whose purpose was to secure federal funding to extend NVISS-like surveillance nationwide. Congress approved funding to start the new system, called the National Violent Death Reporting System (NVDRS), in fiscal year 2002. The first cooperative agreements were established with six state health departments in September 2002, including: Maryland, Massachusetts, New Jersey, Oregon, South Carolina and Virginia. Additional funding to add more states was made available in fiscal year 2003 and another seven states were funded (Alaska, Colorado, Georgia, North Carolina, Oklahoma, Rhode Island and Wisconsin). Although Alaska was not a first-year state, it voluntarily collected 2003 data as a first year NVDRS state. Today NVDRS operates in 18 states including Kentucky, Michigan, Ohio, New Mexico and Utah.

Alaska Violent Death Reporting System Data Collection and Validation

Using NVDRS guidelines, violent deaths are initially identified on the basis of International Classification of Diseases, Tenth Revision (ICD-10) codes for the underlying cause of death field on death on the death certificate. All suicides, homicides, deaths of undetermined intent, deaths due to legal intervention, and unintentional firearm deaths that occurred in Alaska between January 1, 2003 and December 31, 2008 were included. The grouping of ICD-10 codes can be found in Section 4: Technical Notes.

The Alaska Bureau of Vital Statistics (AK BVS) mortality database is queried quarterly for ICD-10 codes matching NVDRS guideline and a list of death certificate numbers are sent to the AK VDRS Program Coordinator. In addition, a manual review is conducted quarterly by the Program Coordinator.

Demographic information on the death certificate may be completed by a funeral home

¹ Centers for Disease Control and Prevention. National Violent Death Reporting System (NVDRS). (2003). National Center for Injury Prevention and Control, Centers for Disease Control and Prevention <http://www.cdc.gov/injury>.

director using information provided by the victims family or other concerned parties. Either a physician certifying the death or a medical examiner completes the cause and manner of death on the death certificate. Since death certificate information is not electronically imported to AK BVS, all original certificates are sent to the AK BVS for registration and entry into the state's database.

The abstractor reviews key fields on each death certificate including manner of death, description of injury (place, time, location, and associated text), and all causes leading to death. The process ensures that all deaths rotationally meeting the NVDRS case definition are identified. A record is created in the AK VDRS database, and additional information is subsequently added from medical examiner and law enforcement sources. The State Medical Examiner's Office (SMEO) provides autopsy reports, toxicology results, hospital records, and other pre-hospitalization information. Law enforcement documents include trooper and police reports and weapon (including ballistics) reports from the Alaska Scientific Crime Laboratory. Newspaper articles are also collected, but the information is not coded and used as a mechanism to identify potential victims and suspects.

Over 270 data elements may be collected for each incident in the database, including information on the following when applicable: the incident, the victim, the suspect(s), toxicology, weapon(s), circumstances associated with a homicide or suicide, relationship between a victim and suspect(s), and the relationship between a victim and weapon(s).

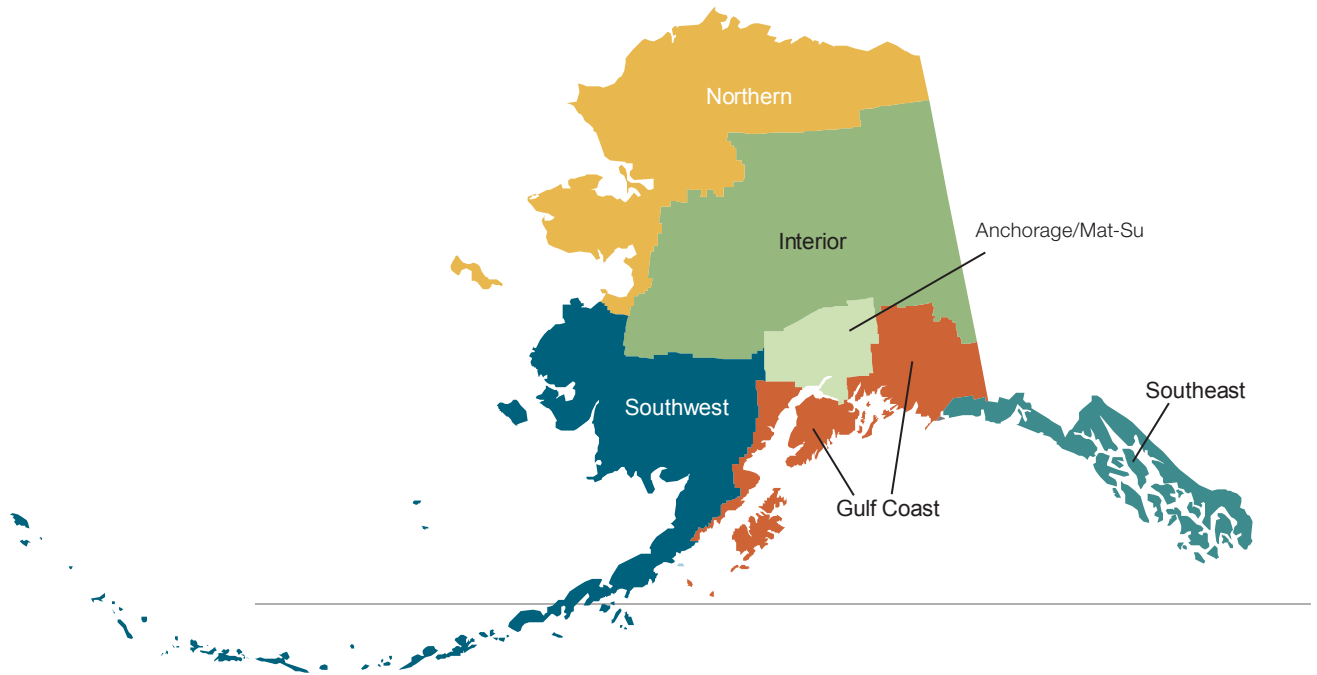
Ten percent of all death certificates undergo a second independent abstraction to validate accuracy of data entry into the AK VDRS database. Errors identified on the death certificate are reported back to the SMEO and AK BVS with a request for review and correction. The corrected information is entered into the AK VDRS database only after corrective action is taken by these offices and notice is sent back to the AK VDRS Program Coordinator.

Statistical Measures

The AK VDRS identified 1347 decedents whose deaths occurred between January 1, 2003 and December 31, 2008. Some of the NVDRS incident types are not included as options on a standard death certificate. This summary report categorically organized information meeting the NVDRS case definitions and used the abstractor's assigned manner of death for analytical purposes.

Three measures are used to summarize violent deaths: counts, percentages, and rates. Simple counts represent the most basic measure of violent death and are important for quantifying the problem, while percentages offer a way of showing distributions in the underlying population relative to some factor of interest, such as age or gender. Rates add an additional level of detail by taking into account the size of the underlying population and facilitating comparisons between groups. Age-adjusted rates were not calculated. The crude rates provide the true rate of injury within a population, which is important for proper community-level prevention strategies. Death rates are expressed as the number of deaths per 100,000 persons. Refer to the Technical Notes section for detailed information on population estimates used for calculating rates. Rates were calculated for specific demographic group (i.e., age, gender, marital status), as well as by region. Event characteristics were noted only as being present. To ensure results incorporated all affirmations, data were analyzed using crosstab analysis to incorporate information from both law enforcement and medical examiner reports.

ALASKA REGIONAL MAP



AK VDRS DEFINITIONS

Data year – The data year is the calendar year in which the victim died.

Homicide – The killing of one human being by the act, procurement, or omission of another. A death resulting from the intentional use of force or power, threatened or actual, against another person, group, or community, where a preponderance of evidence must indicate that the use of force was intentional. Included are deaths when the suspect intended to only injure rather than kill; fatal heart attacks induced from the force or power; unintentional discharge of a firearm when used to control or frighten; “justifiable homicides” not committed by a law enforcement officer (see Legal intervention death); deaths resulting from self-defense; deaths due to “child or elder abuse” without an intent being specified; and deaths due to neglect by one person against another.

Homicides do not include hunting accidents (see Unintentional firearm deaths) or combat related deaths under operation of war. Vehicular homicide is not included unless there is a preponderance of evidence of intent to use force against another.

Legal intervention death – A death where the victim is killed by a law enforcement (and military police) officer acting in the line of duty.

Natural death – A death which occurs by the unassisted operation of natural causes, as distinguished not only from “civil death”, but also from “unnatural” (e.g. violent) death.

Suicide – The deliberate termination of one’s own life. A death resulting from the intentional use of force against oneself with a preponderance of evidence to indicate the force was intentional.

Suspect – A person reputed or suspected to be involved in a crime. A person who is suspected of having killed another person in an incident.

Terrorism-related death – “Act of terrorism” means an activity that involves a violent act or an act dangerous to human life that is a violation of the criminal

laws of the United States or of any State, or that would be a criminal violation if committed within the jurisdiction of the United States or of any State. Terrorism-related deaths are homicides or suicides that result from an act of terrorism and are a mechanism of death rather than a manner of death.

Undetermined manner of death – A death for which the evidence indicating one manner of death is no more compelling than the evidence indicating another manner of death.

The AK VDRS (NVDRS) operational definition used in case ascertainment is a death resulting from the use of force or power against oneself or another person for which the evidence indicating one manner of death is no more compelling than the evidence indicating another manner of death.

Death caused by violent external means, as distinguished from natural death as caused by disease or the wasting of the vital forces.

Unintentional firearm injury death – The term “firearm” means any weapon which is designed to or may readily be converted to expel any projectile by the action of an explosive. Intent refers only to the state of mind of which an act is done purposely, and not accidentally.

The AK VDRS (NVDRS) operational definition used in case ascertainment is a death resulting from a penetrating injury or gunshot wound from a weapon that uses a powder charge to fire a projectile when there was a preponderance of evidence that the shooting was not intentionally directed at the victim. Unintentional injuries from non-powder (e.g., BB pellet, and other compressed air or gas-powered guns) are not classified as unintentional firearm injury deaths.

Victim – A person who is the object of a crime. A person who is killed by another person or persons in an incident.

Violent death – Death caused by violent external means, as distinguished from natural death as caused by disease or the wasting of the vital forces. Death is “violent” within accident policy if it results from external agency and is not in ordinary course of nature. A death that results from the intentional use of physical force or power, threatened or actual, against oneself, another person, or a group or community. The person using the force or power need only have intended to use force or power; they need not have intended to produce the consequence that actually occurred. “Physical force” should be interpreted broadly to include the use of poisons or drugs. The “power” includes acts of neglect or omission by one person who has control over another.

Weapon – An instrument of offensive or defensive combat, or anything used, or designed to be used, in destroying, defeating, threatening, or injuring a person. The AK VDRS (NVDRS) operational definition used for weapon is the primary mechanism used either by the victim on themselves or a suspect on a victim that results in a fatal event. Weapons can range from instruments everyone would call a weapon, such as a gun or bayonet, to actions such as setting fires, pushing someone over a cliff, or shaking (as in shaken baby syndrome). Additional descriptive data elements are collected for firearms and poisons. The weapon type categories other than firearms and poisons are as follow: non-powder guns (e.g., BB guns), sharp instruments, blunt instruments, hanging/suffocation, personal weapons (e.g., fist or feet), fall, explosive, drowning, fire, shaking, motor vehicle, biological weapon, and intentional neglect. Guns on the scene not used to shoot the victim, (e.g., a gun on the person of the victim), are not counted as weapons in the incident. Similarly, poisons or drugs on the scene that were not ingested in a drug overdose are not counted. Evidence that a drug/poison was taken as an overdose would be indicated in a statement that the person took an overdose, that the drug helped cause the death, or that drug levels were more than therapeutic or beyond the normal range. Refer to the Technical Notes for a list of weapons coded in the AK VDRS.

HOW TO USE THIS DOCUMENT

The Alaska Violent Death Reporting System (AK VDRS) summary report is a tool for violence prevention and public health planners. The information provides a state-level overview to support efforts related to violent injury and death prevention.

The following sections present information on the establishment of the AK VDRS, the processes to create this document, and several major indicators of Alaska's violent deaths—homicide, suicide, and death due to unintentional firearm injury death, legal intervention, acts of terrorism and undetermined manner. Data are analyzed to produce result tables and charts. The results are reported as numbers of events, rates of total population, and rates of specific populations. A combined 6-year period (2003-2008) is used when presenting mortality rates.

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 includes a baseline data period from 2003 and data collected through 2008 to ensure that data collected portrays a statistically valid statewide assessment. Annual reports will be completed to determine patterns and trends.

This report adopted the guidelines used by the Alaska Bureau for Vital Statistics for mortality rates. Population estimates were produced under a collaborative arrangement between the National Center for Health Statistics and the U.S. Census Bureau. The crude death rate is commonly used to measure mortality. Information is presented by regions due to the limited number of observations and sparse population of some communities in order to protect confidentiality of the decedent's family.

Additional Data Resources

- U.S. Census. <http://www.census.gov/main/www/cen2000.html>
- Populations Estimates and Overview, Research and Analysis Section, Alaska Department of Labor. <http://almis.labor.state.ak.us/>
- Alaska Bureau of Vital Statistics, Division of Public Health, Alaska Department of Health and Social Services. <http://www.hss.state.ak.us/dph/bvs/default.htm>
- Alaska Uniform Crime Reporting (UCR) Program, Criminal Records and Identification Bureau, Division of Statewide Services, Alaska Department of Public Safety. <http://www.dps.alaska.gov/statewide/urc.aspx>

SECTION 1
OVERVIEW OF
VIOLENT DEATHS

Table 1.1: Victim Count, Percent, and Rate of Violent Death by Demographics, Alaska, 2003-2008

	Victim Count	Percent of Victim Count*	Rate per 100,000†
Intent			
Suicide	869	64.5	21.7
Homicide	244	18.1	6.1
Unintentional Firearm	38	2.8	0.4
Legal Intervention	14	1.0	0.4
Undetermined	182	3.5	4.6
Total	1347	99.9	33.7
Gender			
Male	1027	76.2	50.1
Female	319	23.7	16.4
Race/Ethnicity			
White	753	55.9	26.1
Black	51	3.8	29.0
Asian/Pacific Islander	43	3.2	19.0
American Indian/Alaska Native	446	33.1	62.8
Other	2	0.1	‡
Two or more races	36	2.7	19.3
Hispanic/Latino	48	3.6	25.8
Unknown	16	1.2	‡
Age Groups, years of age			
<1	53	3.9	84.0
0 – 9	69	5.1	10.8
10 – 19	178	13.2	27.0
20 – 29	312	23.2	59.9
30 – 39	233	17.3	41.3
40 – 49	255	18.9	39.1
50 – 59	176	13.1	32.4
60 – 69	68	5.0	26.9
70 +	56	4.2	33.0

*Total may not equal 100.0% due to rounding.

† Rates are not calculated for ≤5 observations; rates should be interpreted with caution for ≤20 observations.

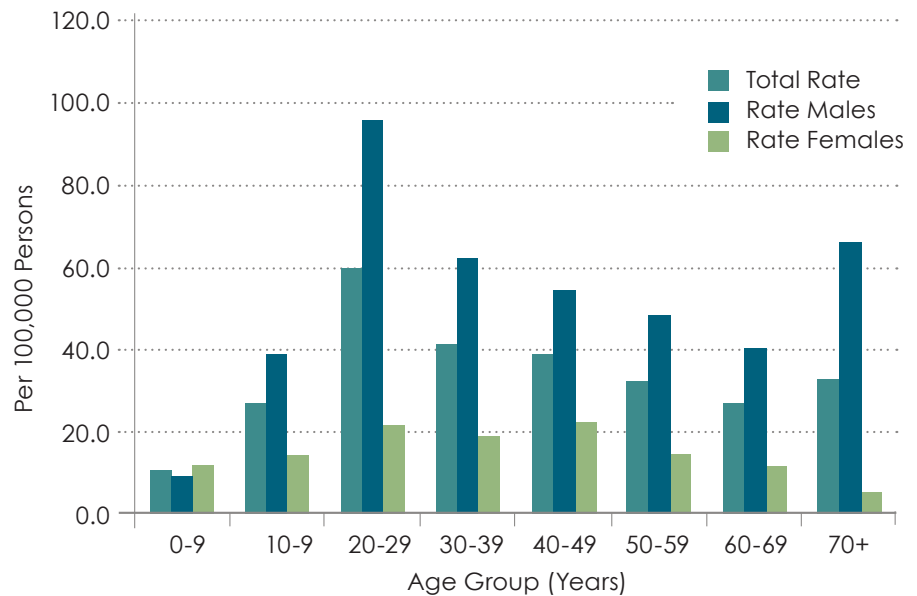
‡ Rates are not calculated for "Other" and "Unknown" race.

This report summarizes data about 1347 violent deaths that occurred during 2003-2008. The majority of the violent deaths were suicides (869, 64.5%), followed by homicide (244, 18.1%) and undetermined intent (182, 13.5%). A death was considered undetermined when death resulted from the use of force or power against oneself or another person for which the evidence indicating one manner of death is no more compelling than the evidence indicating another manner of death. Suicide accounted for the highest rate of violent death (21.7 per 100,000 persons), followed by the combined rates for homicide/legal intervention (6.4 per 100,000 persons) and undetermined intent and unintentional firearm deaths (5.5 per 100,000 persons, respectively) (Table 1.1).

Males had a violent death rate that was more than 3 times the rate for females.

Overall, the crude rate of violent death was 33.7 deaths per 100,000 persons. Among the highest rates by age group were children aged <1 year and adults aged 20-29 years (84.0 and 59.9 per 100,000 persons, respectively). Rates among males ranged 2 to 12 times higher than females for all age groups except 0-9 years (Fig. 1.1).

Figure 1.1. Rate of Violent Death by Age Group and Gender, Alaska 2008



Males had a violent death rate that was more than 3 times the rate for females. Although the largest number of decedents was among Whites (n=753), American Indians/Alaska Natives (AI/ANs) had rates that were more than 2 times the rate of any racial/ethnic populations of violent death (62.8 per 100,000 persons). AI/AN males and females had the highest rates of death (88.8 and 36.2 per 100,000 persons, respectively) (Table 1.2).

Table 1.2: Victim Count, Percent, and Rate of Violent Death by Gender Race and Ethnicity, Alaska, 2003-2008

	Male			Female		
	Victim Count	Percent*	Rate per 100,000†	Victim Count	Percent*	Rate per 100,000 †
White	600	58.4	40.2	153	48.0	11.0
Black	40	3.9	44.4	11	3.4	12.9
Asian/Pacific Islander	30	2.9	27.8	13	4.1	10.9
American Indian/Alaska Native	319	31.1	88.8	127	39.8	36.2
Other	0	0.0	‡	2	0.6	‡
Two or more races	24	2.3	25.5	11	3.4	12.0
Unknown	14	1.4	‡	2	12.5	‡
Total (of Gender Population)	1027	100.0	50.1	319	99.8	16.4
Hispanic/Latino	41	4.0	43.3	7	2.2	7.6

**Total may not equal 100.0% due to rounding.
† Rates are not calculated for ≤5 observations; rates should be interpreted with caution for ≤20 observations.
‡ Rates are not calculated for "Other" and "Unknown" race.*

The majority deaths involved a firearm (735, 45.9%).

Of all violent deaths that occurred in 2003-2008, 1601 weapons were documented and included events where multiple weapons were used. The majority deaths involved a firearm (735, 45.9%), followed by poisoning (393, 24.5%) and hanging/strangulation/suffocation (225, 14.1%). Percentages of other individual weapons were less than 3% each. The primary weapon was identified in 1321 deaths. The use of a firearm against a male victim was more common than against females and found to be the primary weapon in the majority of deaths among males (633, 62.6%). The primary weapons in the majority of deaths among females were firearms (88, 28.4%), poisoning (74, 23.9%), and hanging/strangulation/suffocation (65, 21.0%) and involved in nearly 75% of deaths among females (Fig. 1.2).

Figure 1.2: Weapons Involved in Violent Death, Alaska, 2003-2008

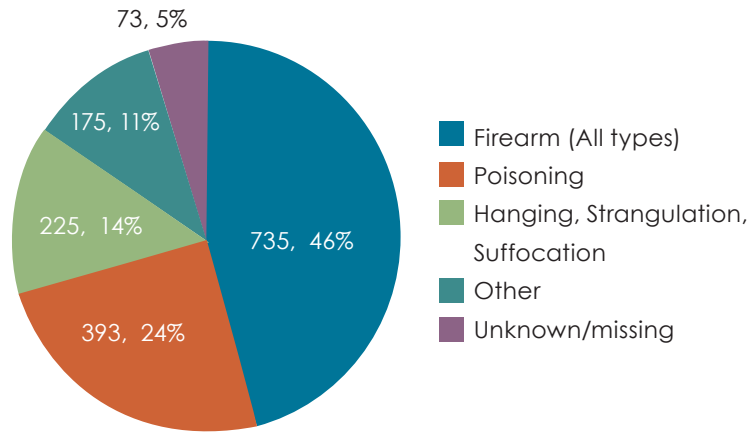
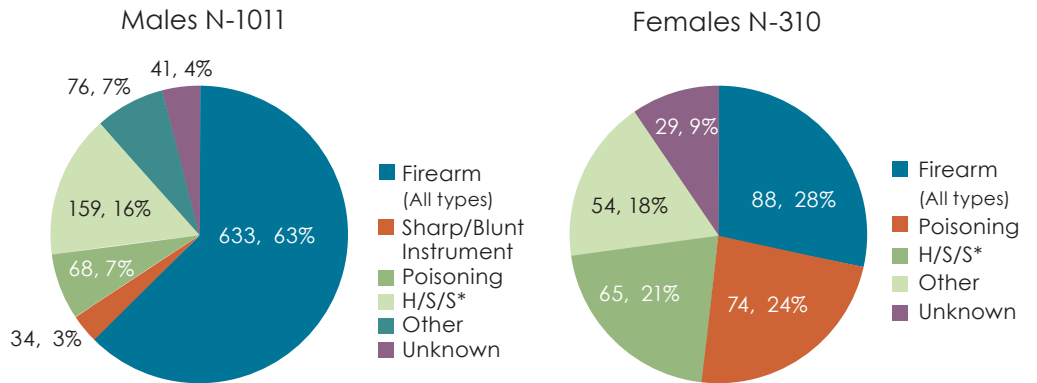


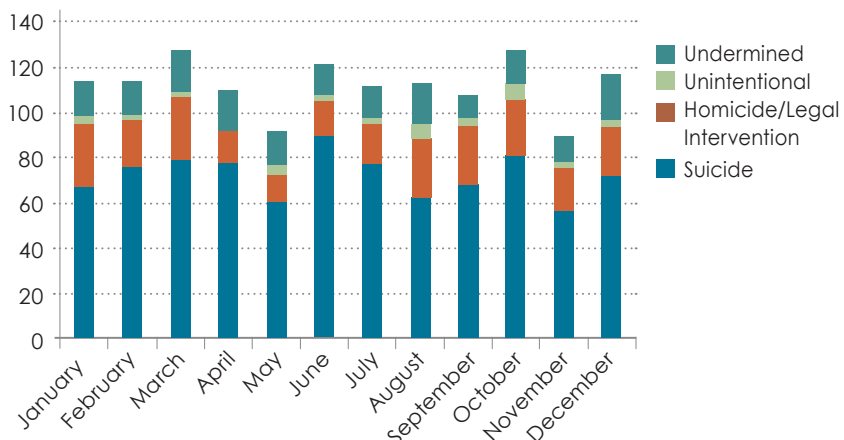
Figure 1.3: Primary Weapon Involved in Violent Death by Gender, Alaska, 2003-2008



*H/S/S Hanging/Strangulation/Suffocation

Seasonality of all violent deaths (by month) showed little variation throughout the year (range: 2.3-3.2 per 100,000 persons) (Figure 1.4; Table 1.4).

Figure 1.4: Victim Count by Month and Manner of Death, Alaska, 2003-2008



Although the largest number of decedents were in the Anchorage/Mat-Su region (602, 44.7%), rates were highest in the Northern and Southwest regions (84.3 per 100,000 persons and 66.6 per 100,000 persons, respectively), at least 2 times higher than the overall violent death rate (33.7 per 100,000 persons) (Table 1.3, Fig. 1.5, and Fig. 1.6). Geographic location could not be determined for 12 deaths.

Table 1.5: Victim Count, Percent, and Rate of Violent Death by Region, Alaska, 2003-2008

Region	Victim Count	Percent	Rate per 100,000
Anchorage/Mat-Su	602	44.7	28.2
Gulf Coast	144	10.7	31.9
Interior	202	15.0	32.9
Northern	120	8.9	84.3
Southeast	190	8.1	45.0
Southwest	158	11.7	66.6
Unknown	12	0.9	
Total	1347	100.0	33.7

Figure 1.5: Victim Count of All Violent Deaths by Region, Alaska, 2003-2008

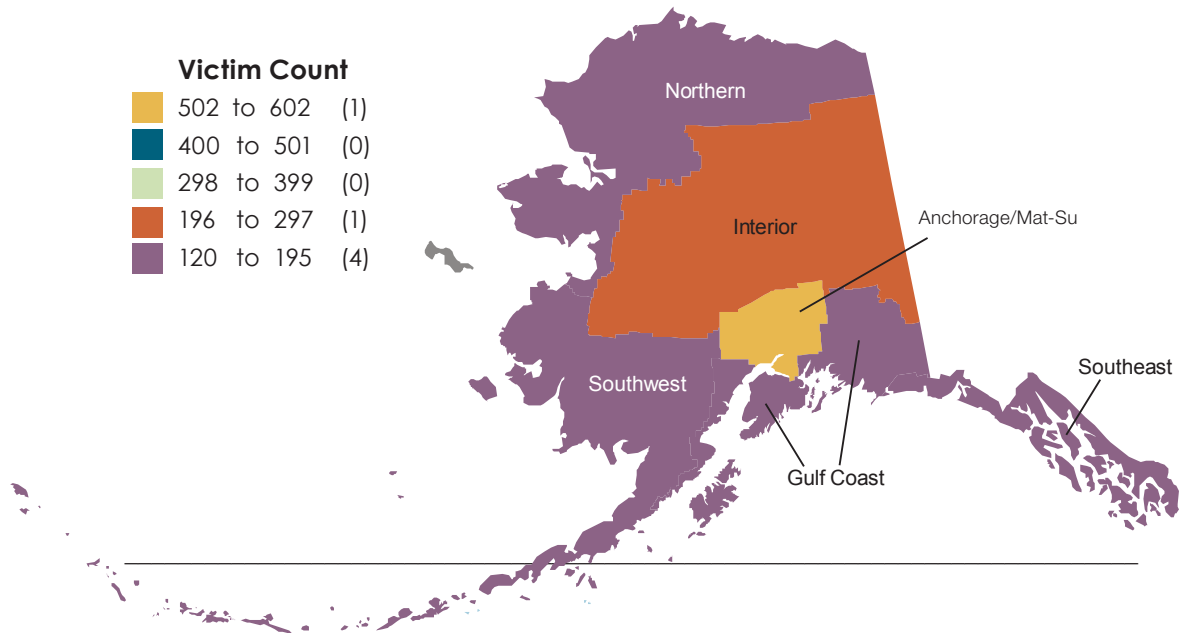
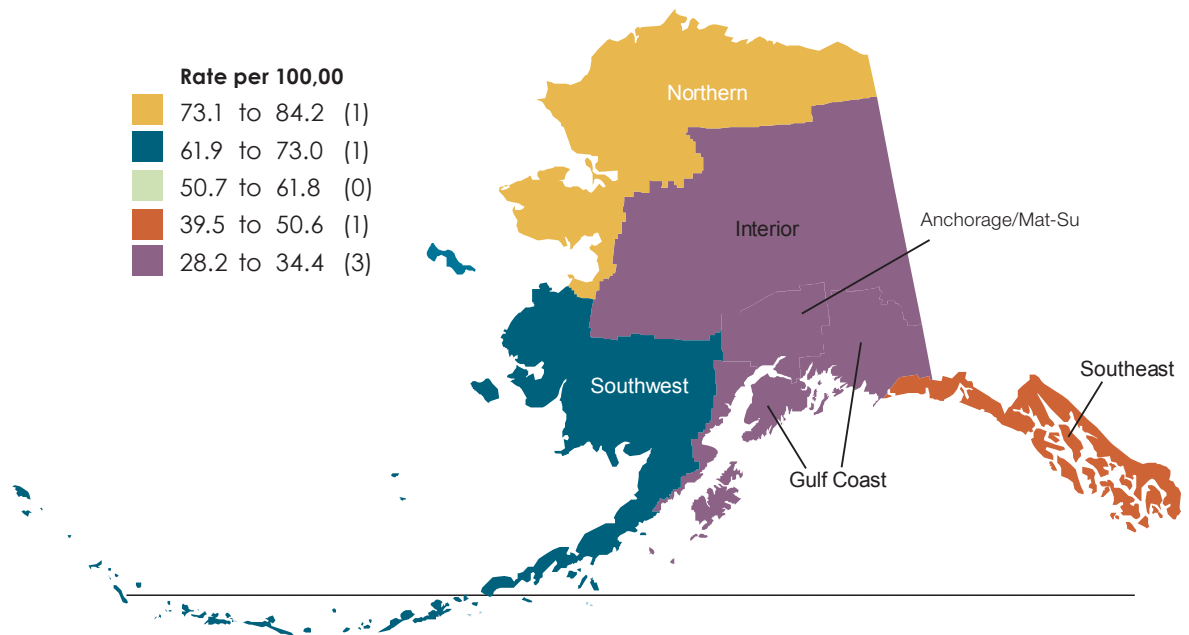


Figure 1.6: Rate of All Violent Deaths by Region, Alaska, 2003-2008



Other frequent Characteristics

- A residence (house or apartment) was the most common place of injury (942/1319, 71.4%). The next most common locations were a motor vehicle (52/1319, 3.9%) and street/sidewalk/alley (45/1319, 3.4%).
- Most victims were never married (737/1347, 54.7%), followed by married (297/1347, 22.0%) and divorced (240/1347, 17.8%).
- Tests for alcohol were conducted for 785/1347 (58.3%) of decedents. Of the decedents who tested positive for alcohol, 292/360 (81.1%) had a blood alcohol concentration (BAC) of >0.08 g/dL.
- Drug tests for amphetamines, antidepressants, cocaine, marijuana, opiates and other drugs were conducted for 689/1347 (51.2%), 476/1347 (35.3%), 702/1347 (52.1%), 687/1347 (51.0%), 699/1347 (51.9%) and 672/1347 (49.9%) of decedents, respectively.
- Of the decedents tested, marijuana was identified in 156/687 (22.7%) of decedents, followed by opiates including heroin and prescription pain killers in 84/699 (12.1%), cocaine in 70/702 (10.0%), antidepressants in 55/476 (11.6%), and amphetamines in 30/689 (4.4%); 84/699 (12.0%) of the decedents were positive for drugs other than the aforementioned.



SECTION 2
SUICIDE

Table 2.1: Victim Count, Percent, and Rate of Suicide by Demographics, Alaska, 2003-2008

	Victim Count	Percent of Victim Count*	Rate per 100,000†
Gender			
Male	694	79.9	33.9
Female	175	20.1	9.0
Race/Ethnicity			
White	523	60.2	18.1
Black	13	1.5	7.4
Asian/Pacific Islander	18	2.1	7.9
American Indian/Alaska Native	287	33.0	40.4
Other	1	0.1	‡
Two or more races	17	2.0	9.2
Hispanic/Latino	27	3.1	14.5
Unknown	10	1.2	‡
Age Groups, years of age			
10 – 19	112	12.9	17.0
20 – 29	224	25.8	43.0
30 – 39	150	17.3	26.6
40 – 49	165	19.0	25.3
50 – 59	126	14.5	23.2
60 – 69	49	5.6	19.4
70 +	43	4.9	25.4
Years of Education			
0 – 8 years	42	4.8	
9 - 12 years	515	59.3	
13 years or more	245	28.2	
Unknown	67	7.7	

*Total may not equal 100.0% due to rounding.

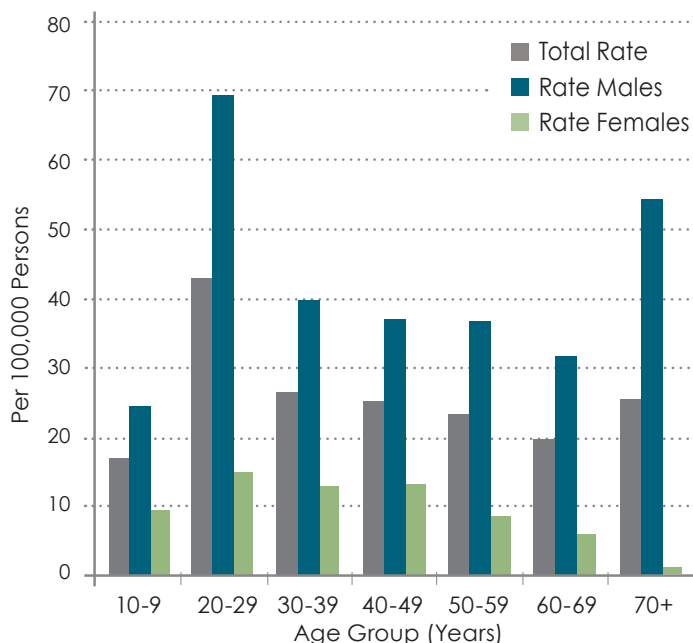
† Rates are not calculated for ≤5 observations; rates should be interpreted with caution for ≤20 observations.

‡ Rates are not calculated for "Other" and "Unknown" race.

From 2003-2008, 869 suicides were identified (Table 2.1), which account for two-thirds (64.5%) of all violent deaths. The crude rate of suicide was 21.7 deaths per 100,000 persons. The overall rate for males was nearly 4 times higher than for females, where rates among age groups were 2 to 5 times higher than females (Fig. 2.1). The highest rate by age group was for adults aged 20-29 years (43.0 per 100,000 persons). Persons aged 10-19 years had the lowest rate (17.0 per 100,000 persons). No decedents under 10 years of age were identified.

Males aged 20-49 years accounted for nearly half of all suicide deaths. Rates among males were highest among aged 20-29 years (69.4 per 100,000 persons), followed by aged 70 and above (54.6 per 100,000 persons). Rates among females were highest among aged 20-29 years and declined with increasing age.

Figure 2.1: Rate of Suicide by Age Group and Gender, Alaska, 2003-2008



Although the largest number of decedents was among Whites (n=523), AI/ANs had the highest rate of suicide (40.4 per 100,000 persons). The prevalence of suicide among AI/AN males and females (60.7 and 19.7 per 100,000 persons) were highest for any gender/race/ethnic population, followed by White males and males self-identifying as Hispanic/Latino (28.9 and 25.4 per 100,000 persons, respectively) (Table 2.2).

Table 2.2: Victim Count, Percent, and Rate of Suicide by Gender, Race and Ethnicity, 2003-2008

	Male			Female		
	Victim Count	Percent*	Rate per 100,000†	Victim Count	Percent*	Rate per 100,000†
White	431	62.1	28.9	92	52.6	6.6
Black	9	1.3	10.0	4	2.3	†
Asian/Pacific Islander	12	1.7	11.1	6	3.4	5.0
American Indian/Alaska Native	218	31.4	60.7	69	39.4	19.7
Other	0	0.0	‡	1	0.6	‡
Two or more races	14	2.0	14.9	3	1.7	†
Unknown	10	1.4	††	0	0.0	††
Total (of Gender Population)	694	99.9	33.9	175	100.0	9.0
Hispanic/Latino	24	3.5	25.4	3	1.7	†

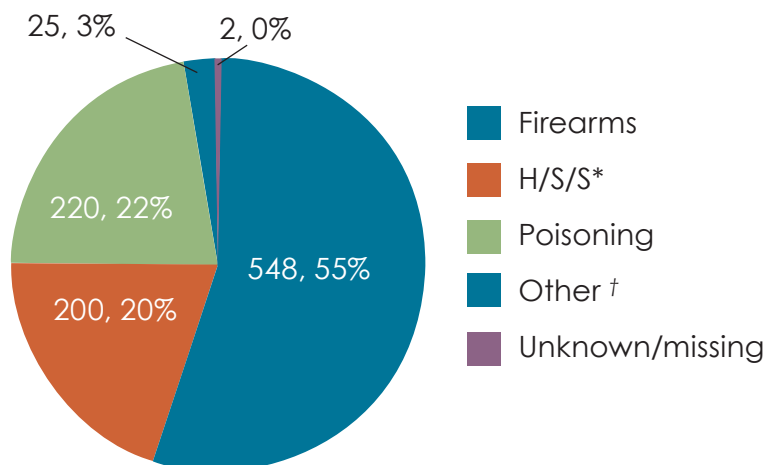
*Total may not equal 100.0% due to rounding.

† Rates are not calculated for ≤5 observations; rates should be interpreted with caution for ≤20 observations.

‡ Rates are not calculated for "Other" and "Unknown" race.

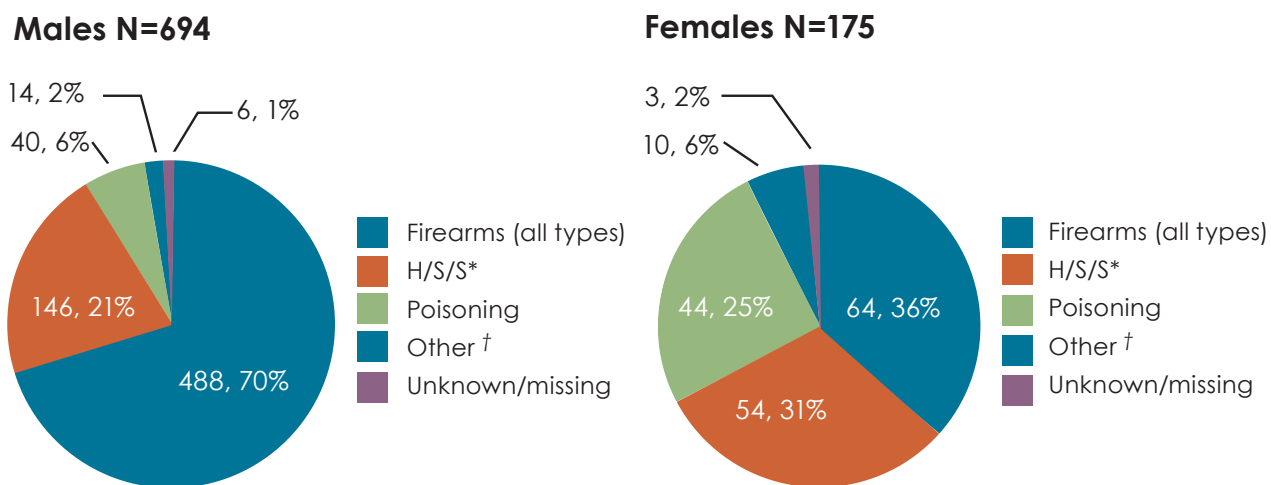
Of suicides that occurred in 2003-2008, 995 weapons were documented and included events where multiple weapons were used. The majority of suicides involved a firearm (548, 63.1%), followed by poisoning (220, 22.1%), and hanging/strangulation/suffocation (200, 20.1%). Percentages of other individual weapons were less than 3.0% (Fig. 2.2). The use of a firearm was more common among males than females and was found to be the primary weapon in the majority of deaths (488/694, 70.3%). The primary weapons in the majority of deaths among females were firearms (64/175, 36.6%), hanging/strangulation/suffocation (54/175, 30.9%), and poisoning (44/175, 25.1%). These three weapon types were involved in over 90% of suicides among females (Fig. 2.3).

Figure 2.2: Weapons Involved in Suicide by Gender, Alaska, 2003-2008



* Hanging, strangulation, suffocation
 † Other=Blunt instrument, personal weapons, falls, drowning, fire/burns, shaking, motor vehicle, intentional neglect

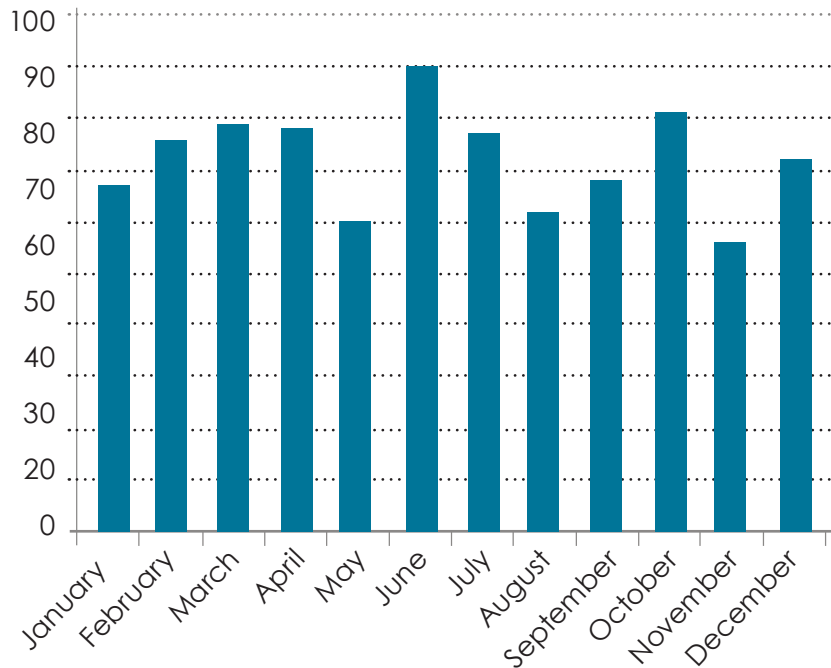
Figure 2.3: Primary Weapon Involved in Suicide by Gender, Alaska, 2003-2008



* Hanging, strangulation, suffocation
 † Other=Blunt instrument, personal weapons, falls, drowning, fire/burns, shaking, motor vehicle, intentional neglect

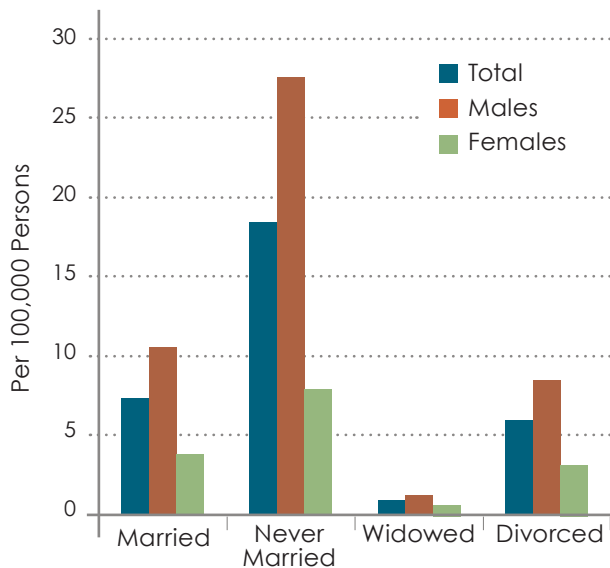
Seasonality of all violent deaths (by month) showed little variation (range: 1.4-2.3 per 100,000 persons). The rate of suicide peaked in June, which was nearly 1.5 times higher than the rate in November (Fig. 2.4).

Figure 2.4: Suicide Count by Month, Alaska, 2003-2008



Most victims were never married (438, 50.4%), followed by married (213, 24.5%) and divorced (168, 19.3%) (Fig. 2.5). While the prevalence of suicide among AI/AN males was 2 times higher than White males, the rate among never married AI/AN males was 4 times higher than White males. In contrast, the rates among married AI/AN and White females were nearly equivalent (2.3 per 100,000 persons vs. 2.2 per 100,000 persons, respectively); however the rate among never married females was 6 times higher among AI/AN females than White females (13.1 per 100,000 persons vs. 1.8 per 100,000 persons, respectively).

Figure 2.5: Rate of Suicide by Marital Status and Gender, Alaska, 2003-2008



Although the largest number of decedents were in the Anchorage/Mat-Su region (388, 45.3%), Northern and Southwest regions of Alaska had the highest rates (60.6 per 100,000 persons and 58.5 per 100,000 persons, respectively) (Table 2.3, Fig. 2.6, and Fig. 2.7).

Table 2.3: Victim Count, Percent, and Rate of Suicide by Region, Alaska 2003-2008

Region	Victim Count	Percent	Rate per 100,000
Anchorage/Mat-Su	388	44.6	18.2
Gulf Coast	88	10.1	19.5
Interior	126	14.5	20.5
Northern	89	10.2	62.5
Southeast	69	7.9	16.3
Southwest	107	12.3	45.1
Unknown	2	0.2	
Total	869	99.8*	21.7

*Total does not equal 100.0% due to rounding.

Figure 2.6: Suicide Count by Region, Alaska, 2003-2008

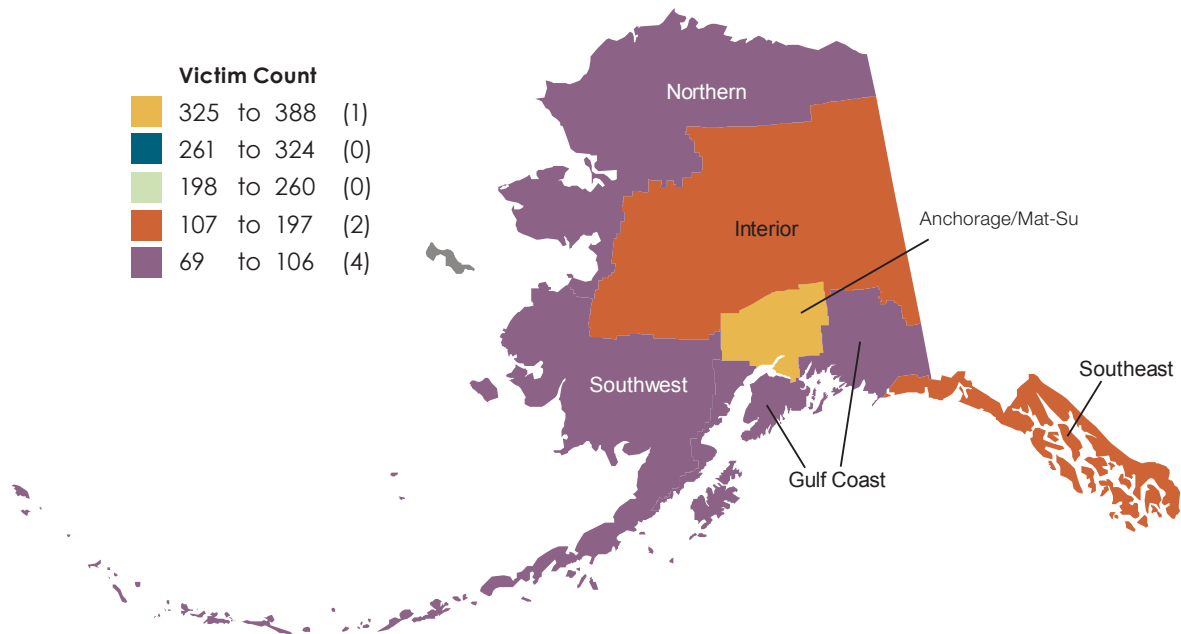
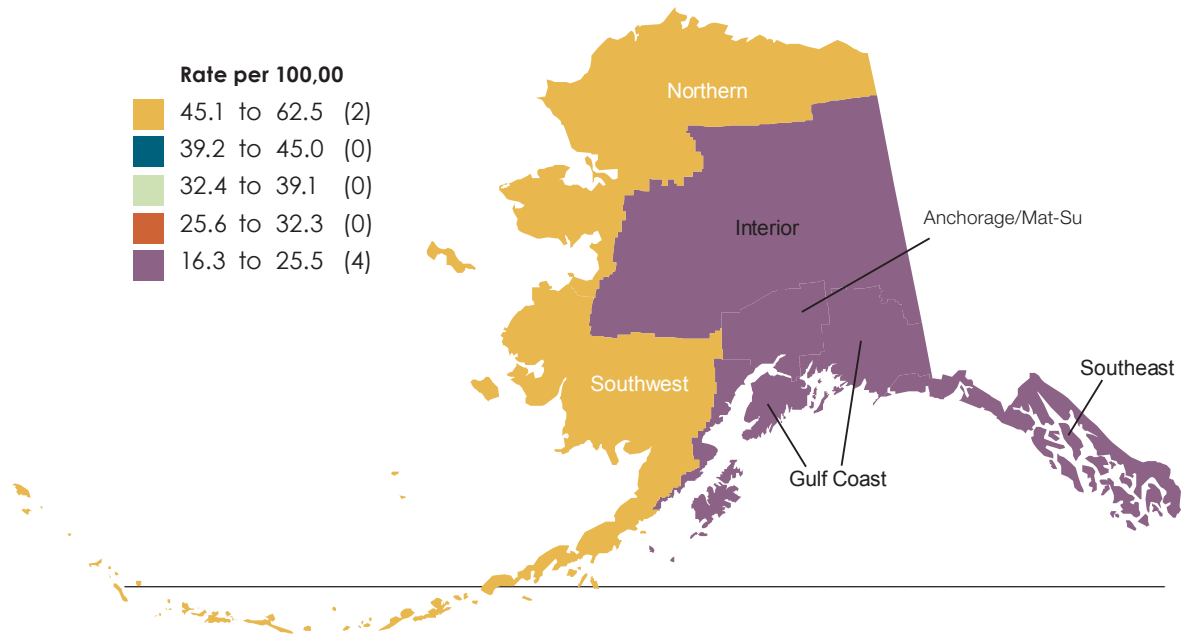


Figure 2.7: Suicide Rate by Region, Alaska, 2003-2008



Frequent Suicide Characteristics, Alaska, 2003-2008

Circumstance information was available in 810 (93.2%) of suicides.

- Location of the event was similar for males and females. A residence (house or apartment) was the most common place of injury (507, 73.1% and 137, 78.3%, respectively). The next most common locations were a natural area (52, 7.5% and 8, 4.6%, respectively) or a motor vehicle (33, 4.8% and 9, 5.1%, respectively).
- Proven or suspected alcohol intoxication was reported in 359 (41.3%) of all suicide events, of which 137 (38.2%) of these decedents had a known alcohol problem.
- Alcohol problems were reported in 178 (20.5%) of all suicides; substance abuse problems were reported in 101 (11.6%).
- The most common precipitating circumstances were a crisis in the two weeks preceding death (307, 35.3%), an intimate partner problem (271, 31.2%), a physical health problem (177, 20.3%), and a recent criminal legal problem (126, 14.5%).
- Life stressors noted among seniors (60 years and older) were a physical health problem (64/92, 69.5%) and a death of a friend or family member (9/92, 16.3%).
- Current mental health problem, current treatment for mental illness, and ever treated for mental illness were equally documented (227, 26.1%; 212, 24.4%; and 221, 25.4%, respectively). Female decedents were nearly twice as likely to have a diagnosis or history of treatment for mental illness (39.8%) compared to male decedents (21.7%).
- Current depressed mood was identified in 361 (41.5%).
- Of all suicides, 253 (29.1%) decedents left a suicide note.
- One-third disclosed their intent (270, 31.1%) of which less than half disclosed their intent in writing.
- Tests for alcohol were conducted for 375 (43.2%) decedents. Of the decedents tested for blood alcohol concentration (BAC), 292/360 (77.9%) had a BAC of >0.08 g/dL.
- Drug tests for amphetamines, antidepressants, cocaine, marijuana, opiates (including heroin and prescription pain killers), and other drugs were conducted for 302 (34.8%), 222 (25.5%), 308 (35.4%), 300 (34.5%), 308 (35.4%), and 306 (35.2%) decedents, respectively.
- Of the decedents tested, drugs other than amphetamines, antidepressants, cocaine, marijuana, and opiates were identified in 92/306 (30.1%) of decedents. Marijuana was identified in 57/300 (19.0%) decedents, opiates (including heroin and prescription pain killers) in 34/308 (11.3%), antidepressants in 28/222 (12.6%), cocaine in 26/308 (8.4%), and amphetamines in 13/302 (4.3%).



SECTION 3
HOMICIDE

Table 3.1: Victim Count, Percent, and Rate of Homicide by Demographics, Alaska, 2003-2008

	Victim Count	Percent	Rate per 100,000†
Gender			
Male	165	67.6	8.0
Female	79	32.4	4.1
Race/Ethnicity			
White	112	45.9	3.9
Black	27	11.1	15.4
Asian/Pacific Islander	17	7.0	7.5
American Indian/Alaska Native	71	29.1	10.0
Other	1	0.4	‡
Two or more races	13	5.3	7.0
Hispanic/Latino	12	4.9	6.4
Unknown	3	1.2	‡
Age Groups, years of age			
<1	16	6.6	25.3
0 – 9	20	8.2	3.1
10 – 19	31	12.7	4.7
20 – 29	54	22.1	10.4
30 – 39	51	20.9	9.0
40 – 49	52	21.3	8.0
50 – 59	23	9.4	4.2
60 – 69	10	4.1	4.0
70 +	3	1.2	1.8
Years of Education			
0 – 8 years	15	6.1	
9 - 12 years	145	59.4	
13 years or more	52	21.3	
Unknown	32	13.1	

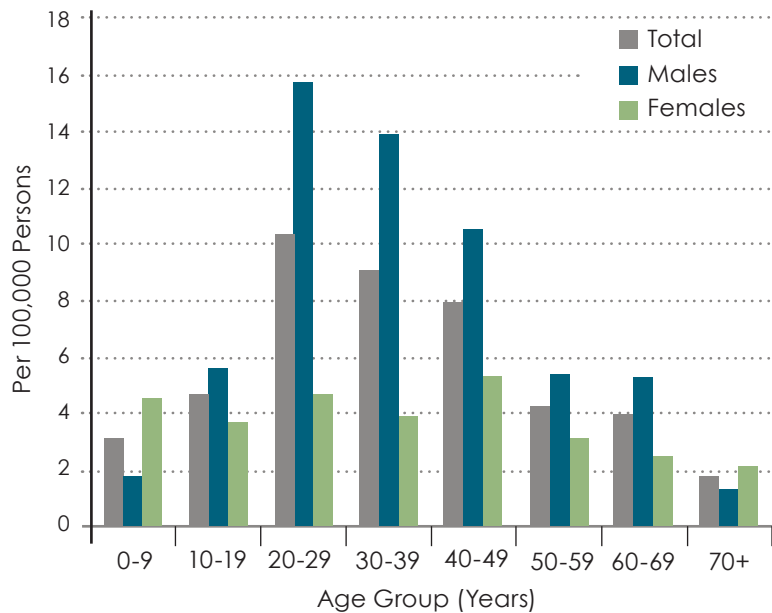
* Age group includes children <1 year of age.

† Rates are not calculated for ≤5 observations; rates should be interpreted with caution for ≤20 observations.

‡ Rates are not calculated for "Other" and "Unknown" race.

During 2003-2008, 244 homicides occurred (Table 3.1), accounting for nearly one-fifth (18.1%) of all violent deaths. The crude rate of homicide was 6.1 deaths per 100,000 persons; the rate for males was nearly 2 times that for females (Fig. 3.1). Highest rates were among children aged less than 1 year (25.3 per 100,000 persons) and adults aged 20-29 years and 30-39 years (10.4 per 100,000 persons and 9.0 per 100,000 persons, respectively). Adults aged 70+ years and children aged 0-9 years had the lowest rates (1.8 per 100,000 persons and 3.1 per 100,000 persons, respectively). Males aged 20-49 years accounted for nearly two-thirds of all homicide deaths (64.3%). Rates among males were highest among those aged 20-29 years (15.7 per 100,000 persons), followed by those aged 30-39 years (13.8 per 100,000 persons). Rates among females were highest for those aged 40-49 years (5.3 per 100,000 persons). Rates among males exceeded females for all age groups except the youngest (0-9 year's) and oldest (70 + years) age groups.

Figure 3.1: Rate of Homicide by Age Group and Gender, Alaska, 2003-2008



Although the largest numbers of decedents was among Whites and AI/AN, Blacks had the highest rate of homicide (15.4 per 100,000 persons). The prevalence of homicide among Black males and AI/AN males (28.9 and 11.4 per 100,000 persons) were highest for gender/race/ethnic population, followed by AI/AN and White females (8.6 and 2.4 per 100,000 persons, respectively) (Table 3.2).

Table 3.2: Victim Count, Percent, and Rate of Homicide by Gender, Race and Ethnicity, Alaska, 2003-2008

	Male			Female		
	Victim Count	Percent	Rate per 100,000	Victim Count	Percent	Rate per 100,000
White	78	47.6	5.2	34	43.0	2.4
Black	26	15.9	28.9	1	1.3	†
Asian/Pacific Islander	12	7.3	11.1	5	6.3	†
American Indian/Alaska Native	41	25.0	11.4	30	38.0	8.6
Other	6	3.0	‡	7	8.9	‡
Two or more races	0	0.0	†	1	1.3	†
Unknown	2	1.2	‡	1	1.3	‡
Total (of Gender Population)	165	100.0	8.0	79	100.1*	4.1
Hispanic/Latino	10	6.1	10.6	2	2.5	*

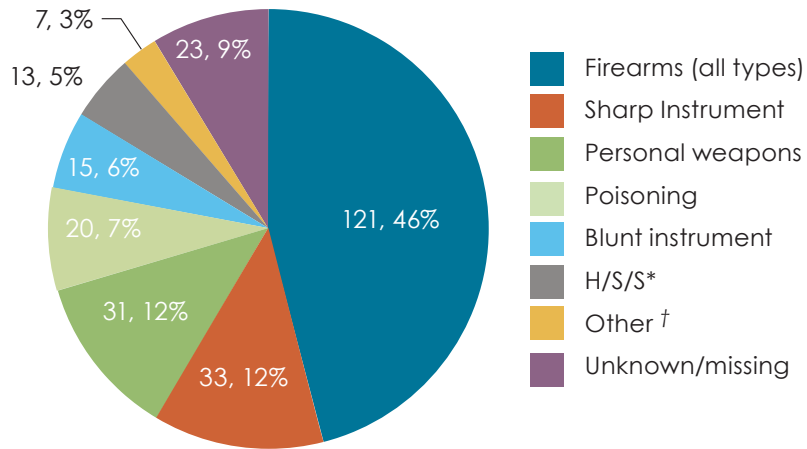
*Total does not equal 100.0% due to rounding.

† Rates are not calculated for ≤ 5 observations; rates should be interpreted with caution for ≤ 20 observations.

‡ Rates are not calculated for "Other" and "Unknown" race.

Of homicides that occurred in 2003-2008, 263 weapons were identified of which the majority was a firearm (46.0%), followed by sharp instrument (12.6%), and personal weapons (11.8%) (Fig. 3.2). The use of a firearm was more common among males than females and was found to be the primary weapon in the majority of deaths (59.7%). The primary weapon in the majority of deaths among females was also a firearm (29.0%), followed by sharp/blunt instrument (26.0%) and personal weapons (17.4%) (Fig. 3.3).

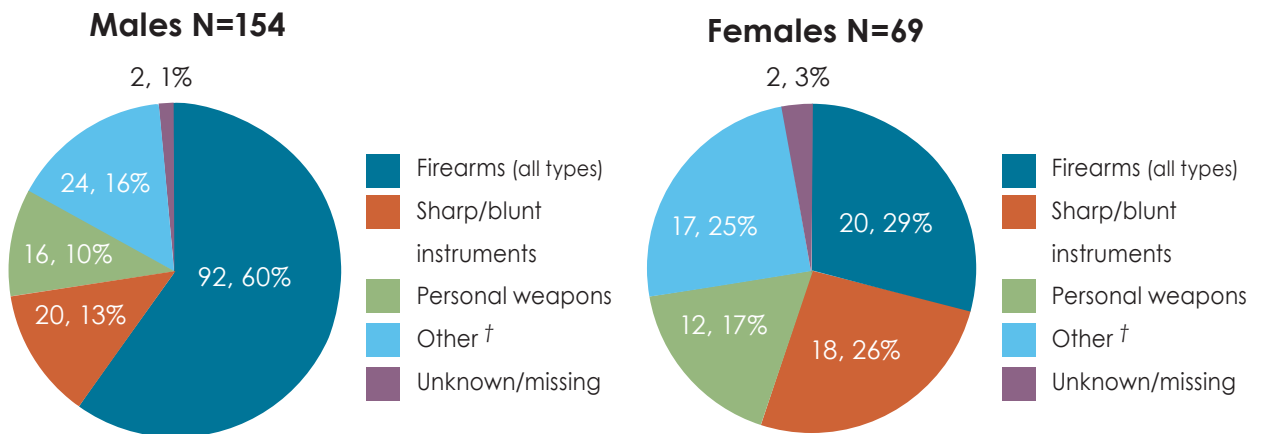
Figure 3.2: Weapons involved in Homicide, Alaska, 2003-2008



* Hanging, strangulation, suffocation

† Other=Blunt instrument, falls, drowning, fire/burns, shaking, motor vehicle, intentional neglect

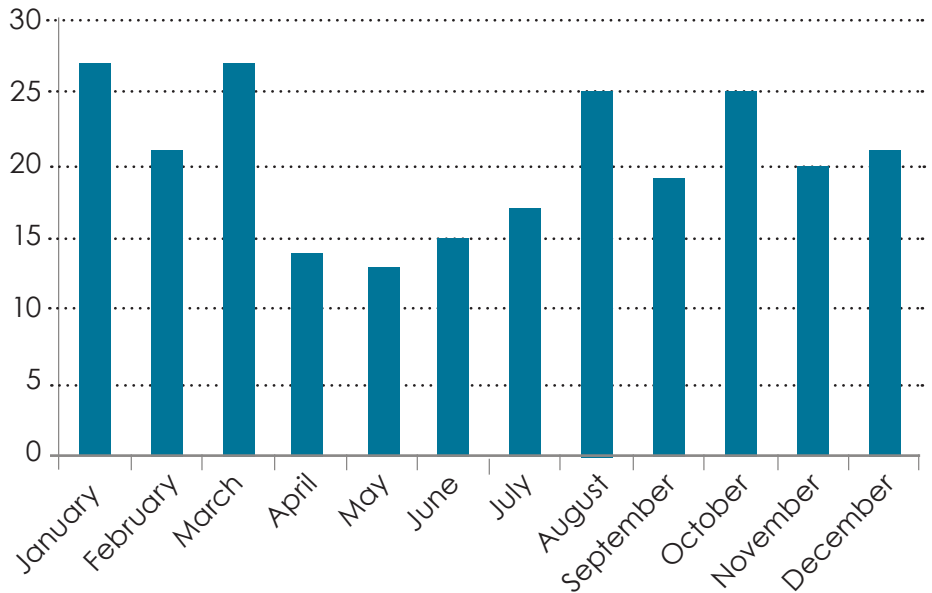
Figure 3.3: Primary Weapon Involved in Homicide by Gender, Alaska, 2003-2008



† Other=Blunt instrument, falls, drowning, fire/burns, shaking, motor vehicle, intentional neglect, H/S/S

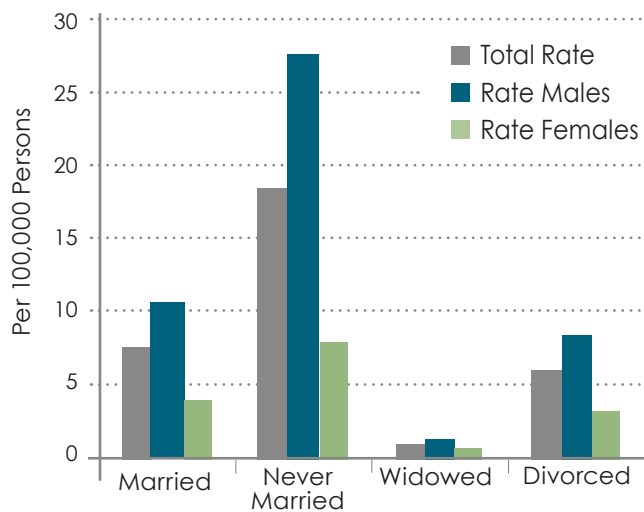
Seasonality of all violent deaths (by month) showed fewer homicides between April and July (range: 0.3-0.7 per 100,000 persons). The rate of homicide peaked in June, which was nearly 1.5 times higher than the rate in November (Fig. 3.4).

Figure 3.4: Homicide Count by Month, Alaska, 2003-2008



Most victims were never married (62.7%), followed by married (16.8%) and divorced (15.6%) (Fig. 3.5). While the prevalence of homicide among AI/AN males was 2 times higher than White males, the rate among never married AI/AN males was 3.5 times higher than White males. In contrast, the rates among married AI/AN and White females were 4 times higher among both married females (2.0 per 100,000 persons and 0.6 per 100,000 persons, respectively) and never married females (5.1 per 100,000 persons and 1.3 per 100,000 persons, respectively).

Figure 3.5: Rate of Homicide by Marital Status and Gender, Alaska, 2003-2008



Although the largest number of decedents were in the Anchorage/Mat-Su region (51.9%), Northern and Southwest regions of Alaska had the highest rates (9.8 per 100,000 persons and 9.7 per 100,000 persons, respectively) (Table 3.3, Fig. 3.6, and Fig. 3.7).

Table 3.3: Count, Percent, and Rate of Homicide by Region, Alaska, 2003-2008

Region	Victim Count	Percent	Rate per 100,000
Anchorage/Mat-Su	125	51.9	5.9
Gulf Coast	23	9.4	5.1
Interior	37	15.2	6.0
Northern	14	5.7	9.8
Southeast	19	7.9	4.5
Southwest	23	9.4	9.7
Unknown	3	1.2	
Total	241	100.0	6.0

Figure 3.6: Homicide Count by Region, Alaska, 2003-2008

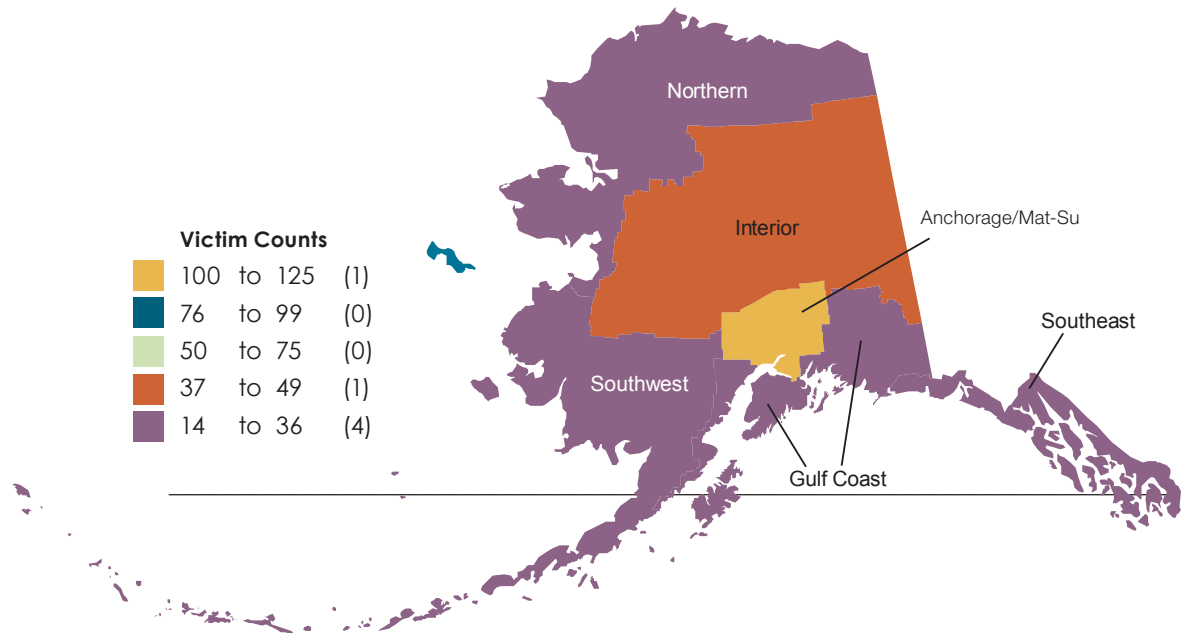
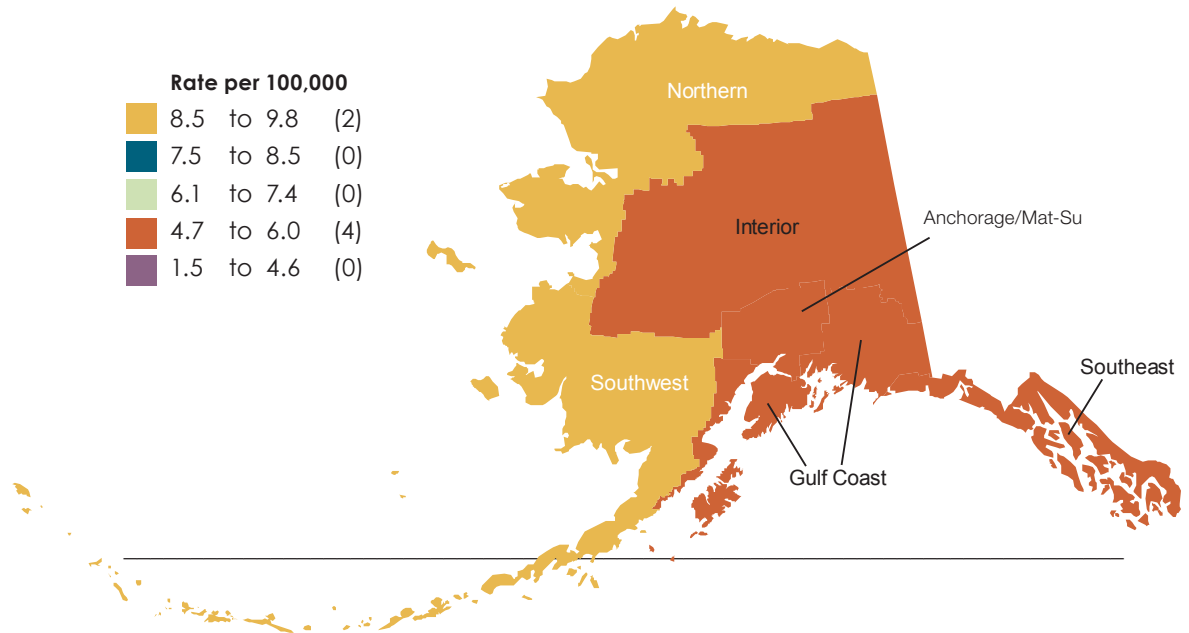


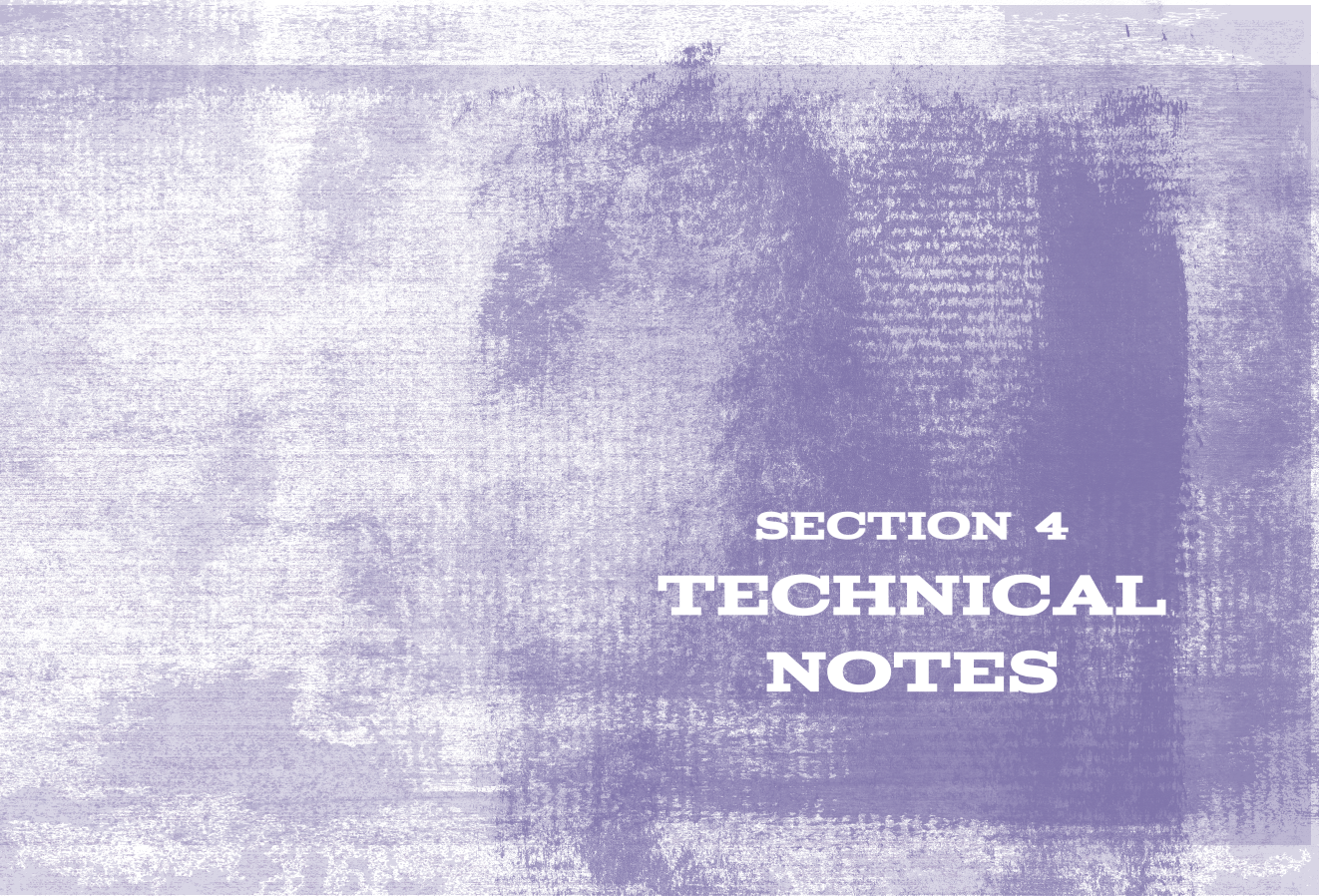
Figure 3.7: Homicide Rate by Region, Alaska, 2003-2008



Frequent Homicide Characteristics, Alaska, 2003-2008

Circumstance information was available in 202 (82.8%) of homicides.

- A residence (house or apartment) was the most common place of injury for both genders (56.7% of male victims and 73.4% of female victims).
- The majority of homicides involved a single victim (219, 90%). Of the events with multiple victims, one-third were murder-suicide events.
- Argument was factor in 59 (24.2%) homicides and was a factor in nearly a third of the homicides among males. Of the events involving an argument, 18 (33.3%) were over money or property.
- Another crime precipitated 54 (22.1%) of homicides. Of these events, 46 (85.2%) of the homicides occurred while a first crime was in progress (69.6% male; 30.4% female).
- Drug involvement was reported in 21 (8.6%) homicides of which the majority (90.5%) were male victims.
- Intimate partner violence was related in 34 (13.9%) homicides (37.5% male; 62.5% female); 15 (6.1%) involved jealousy due to a lover’s triangle (73.3% male; 26.7% female).
- Gang-relatedness was identified as a factor in 9 (3.6%) of the homicides.
- Of the homicide victims, 13 (5.3%) used a weapon, 7 (2.9%) were bystanders, 3 (1.2%) were interveners assisting a crime victim, and 1 (0.4%) was a police officer on duty.
- Nearly half of the homicide victims (116, 47.5%) were proven or suspected to be intoxicated.
- Tests for alcohol were conducted for 230 (94.3%) of homicide victims. Of decedents who tested positive for alcohol (106/230), 87 (82.1%) showed a blood alcohol concentration (BAC) of >0.08 g/dL (the legal limit in the majority of states).
- Drug tests for amphetamines, cocaine, marijuana, opiates (including heroin and prescription pain killers), other drugs, and antidepressants were conducted for 223 (91.4%), 228 (93.4%), 226 (92.6%), 227 (93.0%), 211 (86.5%), and 138 (56.6%) of homicide victims, respectively.
- Cocaine was identified in 29/228 (12.7%) of homicide victims, opiates (including heroin and prescription pain killers) in 17/227 (7.5%), amphetamines in 11/223 (4.9%), antidepressants in 9/138 (6.5%), marijuana in 70/226 (31.0%), and other drugs in 40/211 (19.0%).



SECTION 4
TECHNICAL
NOTES

NVDRS METHODOLOGY

In accordance with the system's design principles, the data is incident-based rather than victim-based.

NVDRS provides a census of violent deaths that occur within the United States to both residents and nonresidents. The system defines a death due to violence as “a death resulting from the intentional use of physical force or power against oneself, another person or against a group or community,” which is the World Health Organization (WHO) definition of violence. The case definition includes suicides, homicides, deaths from legal intervention (a subtype of homicide), deaths from undetermined intent, and unintentional firearm fatalities. Deaths of undetermined intent are included because this category includes some deaths with some evidence of intent, but without enough to definitively classify as purposeful. Unintentional firearm injury deaths, otherwise known as accidental, are included because the category includes some deaths that are in fact intentional or undetermined. Legal executions, which are considered part of deaths from legal intervention, are excluded from NVDRS as beyond the scope of public health. (Case definitions are provided in detail with examples in the NVDRS manual.)

The system is coordinated and funded at the federal level but depends on separate data collection efforts in each state managed by the state health departments. In accordance with the system's design principles, the data is incident-based rather than victim-based. The record for an incident includes information about all the victims and suspects, their relationships and any weapon(s) involved in each incident.

To fully characterize the incidents, states collect information about each incident from three primary data sources: Death Certificates (DC), Coroner/Medical Examiner (CME) records and Police Records (PR). A fourth source, crime lab records, may be tapped for additional firearm information if not already present in other reports pertaining to the incident. (More information about these sources can be found in the NVDRS Implementation Manual.) Most states use death certificates for case ascertainment because the state health department itself collects death certificates. At a minimum, 85 unique data elements are collected for a relatively simple incident like a firearm suicide by an adult. Many additional variables are available as options or for more complicated cases. That data are resorted by source document so the source of each entry can be determined.

Over time, additional data sources that are particularly useful for specific kinds of death may be added to the system. In the first year of NVDRS, for example, some of the funded state health departments tested the availability and utility of data from child fatality review teams, using a module specially designed to take advantage of the detailed information available from that source.

Data collection can be done by either abstraction from the records maintained by the primary sources at their offices or by transfer of data from the primary sources to the health department's NVDRS office. At present, Alaska data must be manually entered into the software. Data collection is staged so that basic demographic information is published early and more detailed information about potential causal factors can be published later. In Alaska, death certificates probably provide the earliest information, but this may not be the case in every state. Most certificate information is available and entered into the system within two months. Most police and ME data become available within 18 months of the occurrence of the death.

The data are stored in a secure, relational database. Personally identifying variables are not forwarded to the national database. A list of those variables is available from CDC. The list includes names, social security number, street address of injury, residence, full birth date, source record numbers and firearm serial number. The software used to enter and transmit the data is described in a separate NVDRS Software Manual. Deaths occurring in 2003 constitute the first year of data for

NVDRS. While Alaska was not a first year state, the AK VDRS voluntarily collected 2003 data.

Case Ascertainment

The AK VDRS used NVDRS operational definitions in case ascertainment. The underlying cause of death must be coded on the death certificate as:

Manner of Death	ICD-10 Codes*	
	Death <1 year after injury	Death >1 year after injury†
Intentional self harm (Suicide)	X60-X84	Y87.0
Assault (Homicide)	X85-X99, Y00-Y09	Y87.1
Undetermined intent (Could not be determined)	Y10-Y34	Y87.2, Y89.9
Accidental firearm (Accident)	W32-W34	Y86 (due to firearms)
Legal intervention excluding execution	Y35.0-Y35.4, Y35.6-&35.7	Y89.0
Terrorism	U01, U03	U02

*The death of a fetus prior to birth that is caused by violence is not included.

†Deaths as a result of injury(ies) sustained and meeting the NVDRS definition have no time limit and are include in the data year of death.

Weapons Categories

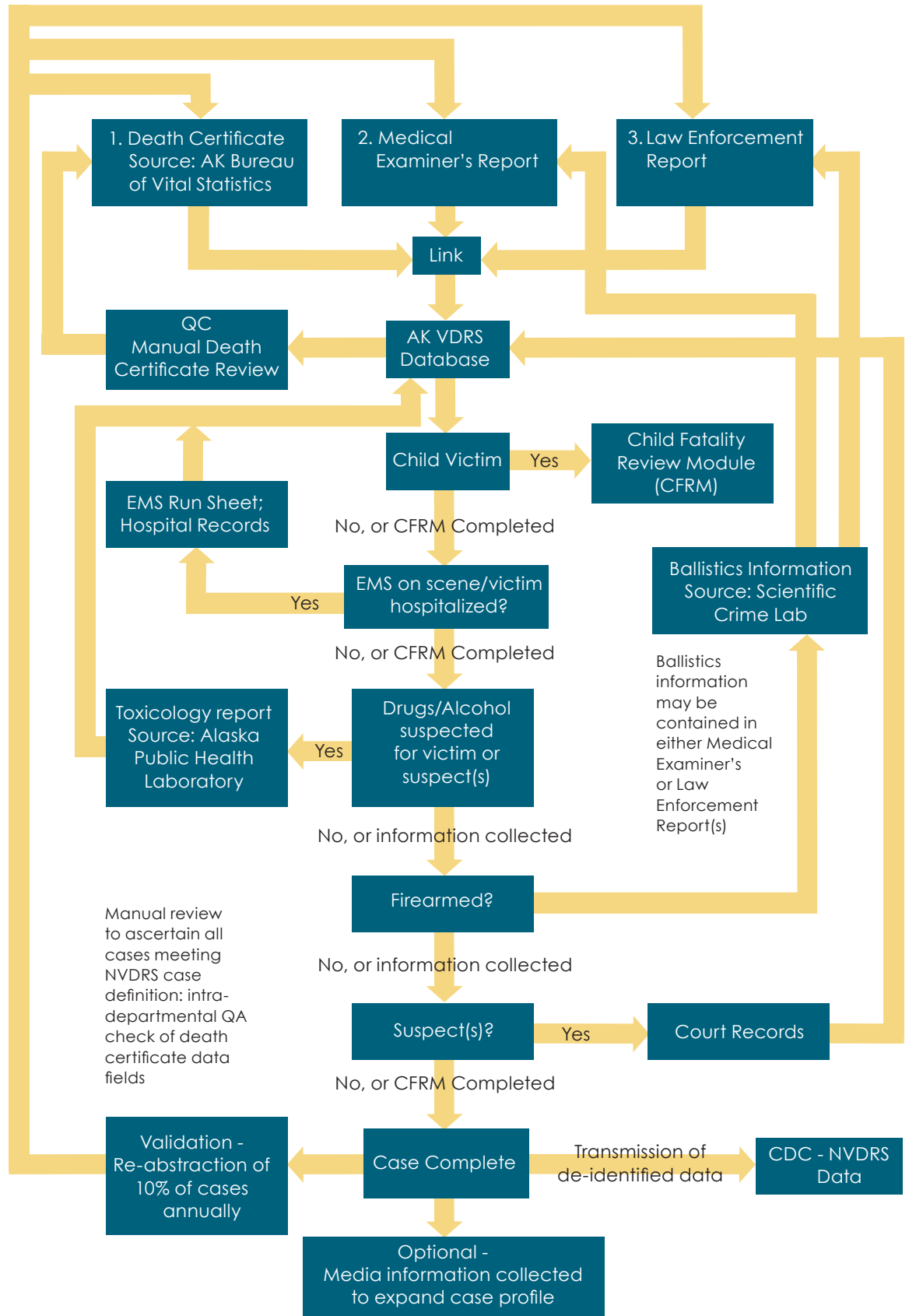
Firearm
 Non-powder gun
 Sharp instrument
 Blunt instrument
 Poisoning
 Hanging, strangulation, suffocation (asphyxiation*)
 Personal weapons
 Fall
 Explosive
 Drowning
 Fire or burns
 Shaking (e.g., shaken baby syndrome)
 Motor vehicle, including buses, motorcycles
 Other transport vehicles (e.g., trains, planes, boats, all-terrain vehicles, snowmobiles)
 Intentional neglect, (e.g., starving a baby)
 Biological weapons
 Other
 Unknown

*Asphyxiation is a condition of being deprived of oxygen and was used as a synonymous term to suffocation.

Calculating Rates

The rates in this report are based upon deaths per 100,000 persons. In calculating rates for race, Hispanic origin, sex marital status, age group, and region, persons estimates were based on 2003-2008 Alaska resident estimates produced by the National Center for Health Statistics Bridged-Race Estimates Vintage 2009 postcensal series, available at: <http://wonder.cdc.gov/population.html>.

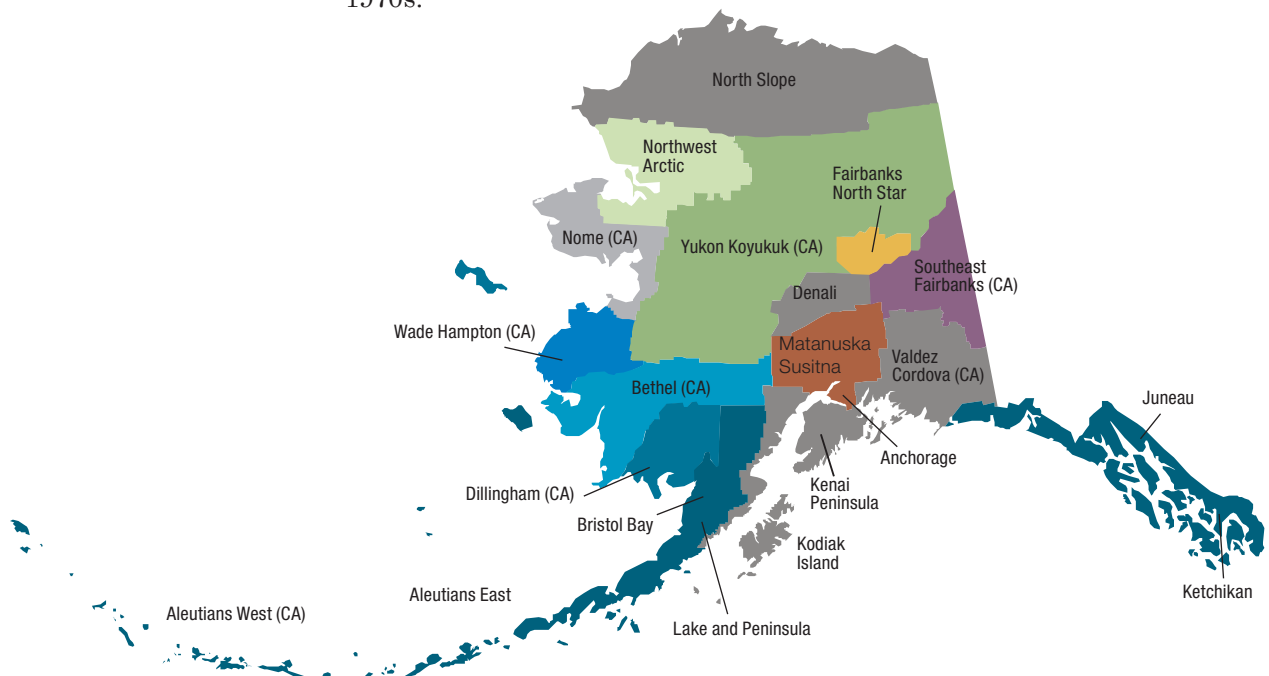
Figure 4.1: Alaska Violent Death Reporting System Data Collection And Validation Flow Chart



APPENDICES

Appendix A - 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 1970s.



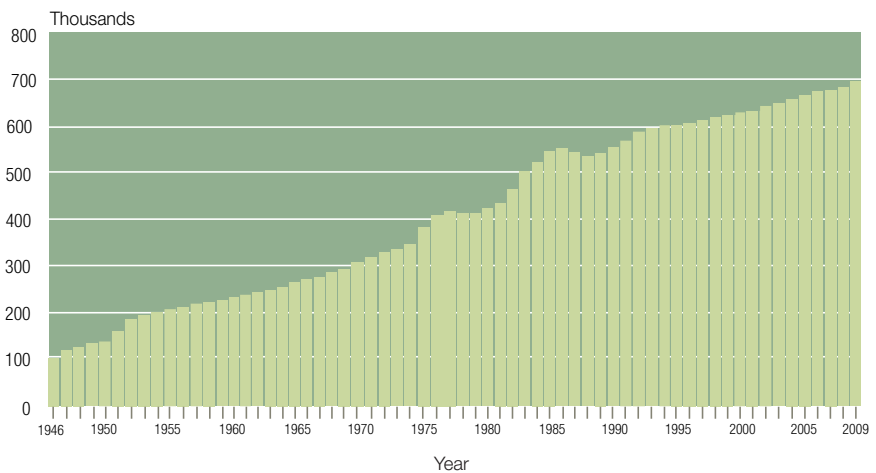
Climate

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

Population

- While the State population has increased six-fold since 1946 (Figure 1), Alaska population density (excluding Anchorage) is slightly more 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.
- The median age for Alaskan males is 33.4; and for Alaskan females is 33.7 years, based on Department of Labor's 2009 population estimates. The median age for males in the United States is 35.5 years; and for females is 38.1 years. Of all states, Alaska has the smallest proportion of persons 65 years and over (7.6%); 81% of Alaskans are less than 55 years of age. Seventy percent (70%) are 18 years and over.
- The population comprises several racial groups: 70% White; 16% Alaska Native/American Indian; 4% Asian; 4% Black, 0.6% Hawaiian or Pacific Islander, and 5% multi-race. Hispanic ethnicity represents 5% of the overall state population.
- As of June 2009, Alaska has an estimated population of 692,314, which is approximately 0.2% of the national population. Alaska's population has increased 10,337, or 1.5%, from the prior year and an increase of 64,781, or 10.3%, since July 2000.

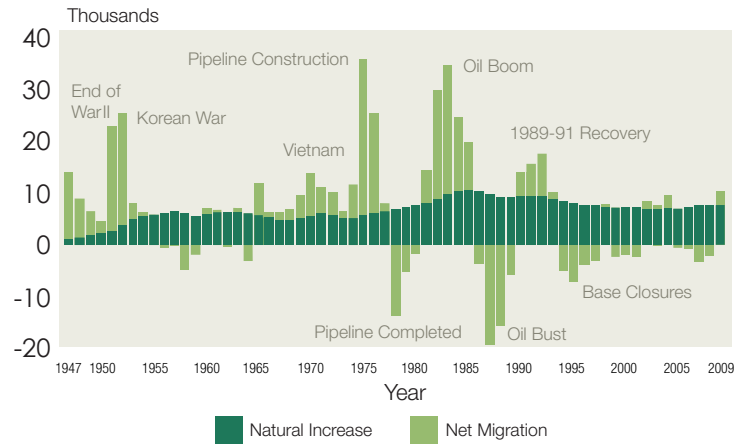
Figure 1. Alaska Population, 1946-2009



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section. [VV](#)

- As of June 2009, Alaska's population had a natural increase of 8,076 people (11,454 births minus 3,378 deaths). Alaska experienced a positive net migration of 2,261 (47,246 migrating in and 44,985 migrating out) (Figure 2). Population growth has largely occurred in Anchorage, Fairbanks, and Mat-Su boroughs, where Mat-Su continues to have the fastest growth since the 1990s.

Figure 2. Components of Population Change, Alaska, 1947-2009

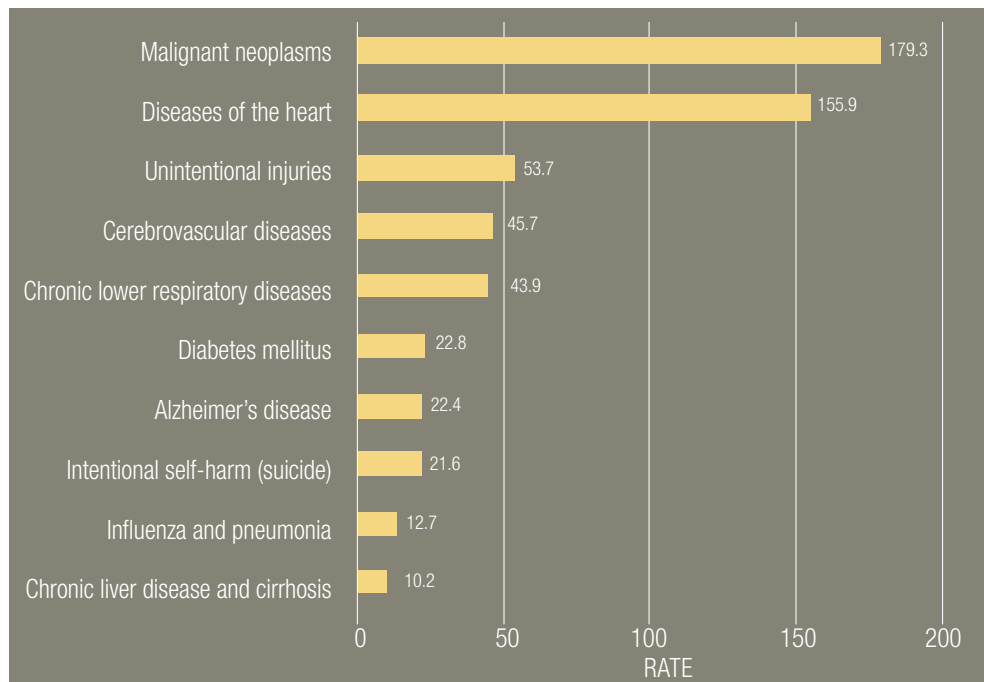


Alaska’s expansive geography combined with its sparse populations, cultural diversity, and rural infrastructure limitations does lend to unique and challenging aspects for proper collection of data to assure accurate analysis.

Appendix B – Leading Causes of Mortality in Alaska, 2004-2008

This section begins with a brief profile of mortality in Alaska. Data was primarily gathered from the Alaska Bureau of Vital Statistics (Chart 1).

Chart 1: Ten Leading Causes of Mortality in Alaska, 2004-2008



Rates are per 100,000 persons, adjusted to the US year 2000 standard population
 Source: Alaska Bureau of Vital Statistics, August 2010.

Appendix C - Child Fatality Review Overview

The Alaska Child Fatality Review (AK CFR) was established by Alaska statute (AS 12.65.120) in 1998. The AK CFR program reviews child deaths, from birth through 17 years of age, focusing on legal issues surrounding the deaths, and only reviewing those deaths that go through the SMEO.

The composition of the AK CFR team is mandated by the aforementioned statute. Members include representatives from state and municipal law enforcement, state prosecutor's office, state social services, and licensed physicians with advanced training in neonatology or pediatrics. Other professionals whose experience and expertise may contribute to the effectiveness of the AK CFR are appointed by the Department of Health and Social Services Commissioner. The State Medical Examiner acts as the appointed chairperson. The team may invite other persons whose expertise would be helpful to participate in a specific death review. Collectively, the AK CFR team conducts retrospective reviews of child deaths reported to SMEO, and child deaths that were unexpected, or of undetermined cause by an attending physician, or suspect of unnatural causes.

While the SMEO provides immediate review of child deaths currently being investigated by a law enforcement agency, the AK CFR team meets once monthly.

Process of Case Identification and Review

Death certificates generated by or submitted to the SMEO are entered into the SMEO database and included in the review. Cases mandated for review by AS 12.65.130 include--

- deaths of all children under age 10;
- children (or their siblings or household members) who were in the legal or physical custody of the state;
- children (or their siblings or household members) who were the subject of a report of harm or an abuse/neglect investigation;
- children who had an immediate family member or household member who was the petitioner or respondent in a protective order during the previous year; and
- children whose deaths occurred in a mental health, foster/child care, or other residential facility.

Cases may also be submitted by an attending physician or certifier for inclusion in the AK CFR process. The team reviews deaths due to 1) trauma, 2) injury having occurred within 24 hours of hospital admission, or 3) unknown circumstances reported to the SMEO.

Once the report of a child death (ROCD) is verified, preliminary documents (e.g., law enforcement narratives, military reports, and medical records) are collected by the lead SMEO Death Investigator who functions as the AK CFR team coordinator. The AK CFR team members provide case files and other records maintained by their respective agencies concerning abuse, neglect, criminal history, juvenile delinquency, and domestic violence involving the child and any person who may have caused the child's death or any person in the deceased child's household. The team reviews and discusses the information and may request additional information to assist the medical examiner in determining the cause and manner of death and to provide recommendations, suggestions, and advice to state and municipal law enforcement or social service agencies in the investigation and final determination of death. Except for public reports issued by the AK CFR team, all information collected and reviewed by the team is confidential; disclosure of information is only permitted when necessary to complete the review process (AS 12.65.140).

