



## Alaska Trauma Registry: Trauma Admissions Involving Firearms, 2009–2014

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The Alaska Trauma Registry (ATR) is an active surveillance system that collects data pertaining to hospitalizations of the most seriously injured patients in Alaska. Data collected include patient demographics, and information about the injury event, patient transport, treatment, and outcomes. Since 1991, the Alaska Trauma Registry has collected data from all 24 (22 civilian and 2 Department of Defense) acute care hospitals, with the purpose of evaluating the quality of trauma patient care, monitoring serious injury, preventing injury, and developing trauma systems. The ATR is a surveillance system of the Alaska Department of Health and Social Services (DHSS), Division of Public Health.

This fact sheet presents data from the ATR — specifically, characteristics of trauma admissions for injuries for which a firearm was the main mechanism of injury. Data used in this Fact Sheet were provided to the Alaska Justice Statistical Analysis Center (AJSAC) by ATR.

**Trauma admissions.** Trauma admissions captured by the ATR include patients with injuries who are: admitted to, or held for observation in, an Alaska hospital; declared dead in the emergency department; and/or transferred to another acute care hospital. Admissions data do not reflect records for unique individuals and may reflect multiple admissions per individual.

From 2009–2014, Alaska hospitals recorded 21,242 trauma admissions (data not shown). Of these trauma admissions, 342 (1.6%) were of patients who had been injured by a firearm.

**Firearms-related admissions.** Trauma admissions in Alaska are recorded and coded based on the method of injury which resulted in the trauma. Using the ICD-9 Mechanism of Injury E Codes, we were able to identify

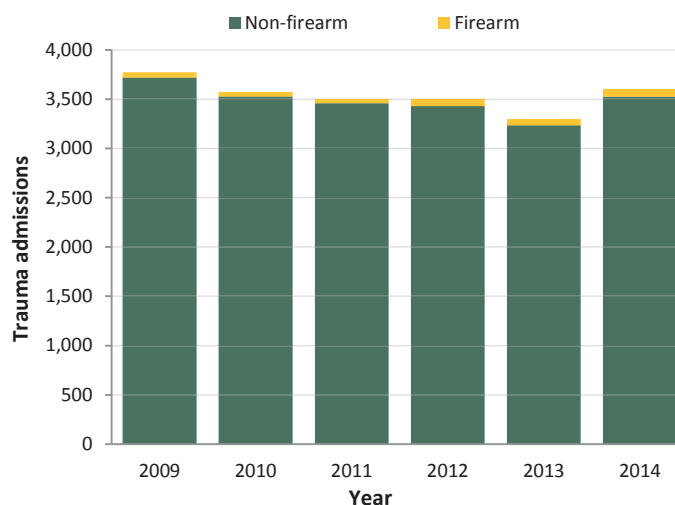
trauma admissions resulting from firearms injuries for our study period from 2009–2014.

The number of trauma admissions as a result of firearms injuries increased 42.6% from 54 in 2009 to 77 in 2014 (Figure 1). Firearms-related trauma admissions numbered 54 in 2009, 44 in 2010, 39 in 2011, 65 in 2012, 63 in 2013, and 77 in 2014. Although, overall, the number of firearms-related trauma admissions increased, there were both annual increases and decreases reported over the period.

Proportionally, firearms-related trauma admissions accounted for 1.4% of all trauma admissions in 2009, 1.2% of all trauma admissions in 2010, 1.1% of all trauma admissions in 2011, 1.9% of all trauma admissions in 2012 and 2013, and 2.1% of all trauma admissions in 2014 — indicating an upward shift in the proportion of trauma admissions involving firearms injuries.

**FIGURE 1.**

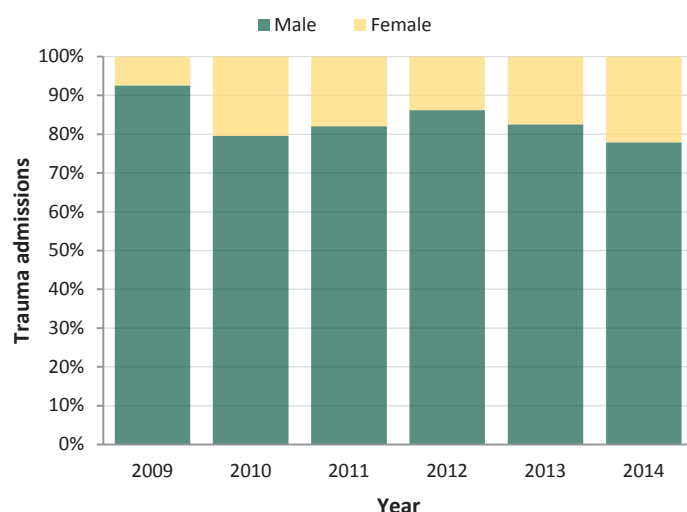
Trauma admissions involving firearms, 2009–2014



Source of data: Alaska Trauma Registry, 2015.

**FIGURE 2.**

Trauma admissions involving firearms by gender, 2009–2014



Source of data: Alaska Trauma Registry, 2015.

– showing annual increases over the last two years of the study (Figure 2).

Firearms-related trauma admissions of males accounted for 92.6% of all trauma admissions in 2009, 79.5% of all firearms-related trauma admissions in 2010, 82.1% of all firearms-related trauma admissions in 2011, 86.2% of all firearms-related trauma admissions in 2012, 82.5% of all firearms-related trauma admissions in 2013, and 77.9% of all firearms-related trauma admissions in 2014 – showing decreases over the last two years of the study (Figure 2).

### Firearms-related trauma admissions by age.

From 2009 to 2014, the proportion of firearms-related trauma admissions increased for only one age group (26–35 years, +169.4%) presented in this report (Figure 3). The proportion of firearms-related trauma admissions decreased for all other age groups. On average from 2009 to 2014, 61.8% of firearms-related trauma admissions were of patients between the ages of 18 and 35 years.

**Injury mechanism.** The ATR collects data identifying the mechanism of injury at a level of detail that allows us to determine the circumstances surrounding an injury. For firearms-related injuries, the ICD-9 codes used by the ATR identify five subcategories of firearms injuries: self-inflicted, assault, legal intervention, terrorism, and undetermined/unknown (see note at end of report). For the time period from 2009 to 2014, there were no firearms-related trauma admissions attributable to terrorism. For our report, we focus on the remaining four subcategories of firearms-related mechanisms of injury resulting in trauma admissions.

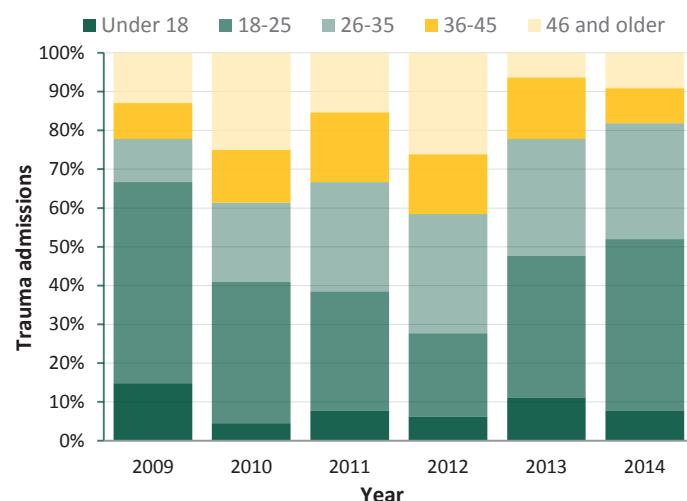
### Firearms-related trauma admissions by gender.

As indicated by Figure 2, from 2009 to 2014 the majority of firearms-related trauma admissions involved males. The data also show increases in the firearms-related trauma admissions of females.

Proportionally, firearms-related trauma admissions of females accounted for 7.4% of all firearms-related trauma admissions in 2009, 20.5% of all firearms-related trauma admissions in 2010, 17.9% of all firearms-related trauma admissions in 2011, 13.8% of all firearms-related trauma admissions in 2012, 17.5% of all firearms-related trauma admissions in 2013, and 22.1% of all firearms-related trauma admissions in 2014

**FIGURE 3.**

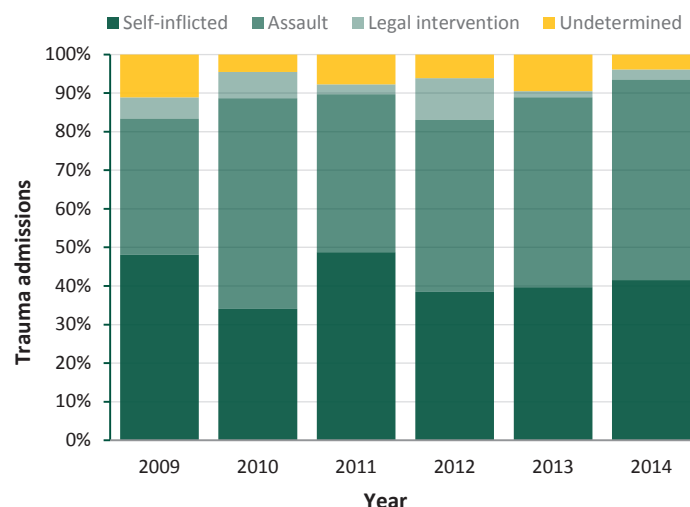
Trauma admissions involving firearms by age group, 2009–2014



Source of data: Alaska Trauma Registry, 2015.

**FIGURE 4.**

Trauma admissions involving firearms by injury mechanism, 2009–2014



Source of data: Alaska Trauma Registry, 2015.

From 2009 to 2014, the proportion of firearms-related trauma admissions from self-inflicted firearms injuries decreased 13.5%, from 48.1% of all firearms-related trauma admissions in 2009 to 41.6% of all firearms-related trauma admissions in 2014 (Figure 4).

From 2009 to 2014, the proportion of firearms-related trauma admissions from assaults with firearms increased 47.4%, from 35.2% of all firearms-related trauma admissions in 2009 to 51.9% of all firearms-related trauma admissions in 2014.

From 2009 to 2014, the proportion of firearms-related trauma admissions from legal interventions involving firearms decreased 53.6%, from 5.6% of all firearms-related trauma admissions in 2009 to 2.6% of all firearms-related trauma admissions in 2014 (Figure 4).

From 2009 to 2014, the proportion of firearms-related trauma admissions from firearms injuries of undetermined mechanism decreased 64.9%, from 11.1% of all firearms-related trauma admissions in 2009 to 3.9% of all firearms-related trauma admissions in 2014 (Figure 4).

## SUMMARY

This fact sheet presents data from the ATR – specifically, characteristics of trauma admissions for injuries for which a firearm is the main mechanism of injury from 2009 to 2014.

Although trauma admissions decreased nearly 5% from 2009 to 2014, the number of trauma admissions involving firearms injuries increased by more than 40% over the same period.

The proportion of firearms-involved trauma admissions increased for females – and decreased for males – from 2009 to 2014. By 2014, more than one in five firearms-involved trauma admissions were of females.

The proportion of firearms-involved trauma admissions increased for 26–35 year olds – and decreased for all other age groups – from 2009 to 2014. By 2014, nearly three-quarters of all firearms-involved trauma admissions were of 18–35 year olds.

The proportion of firearms-related trauma admissions involving self-inflicted firearms injuries, injuries due to legal intervention, and injuries due to undetermined firearms mechanism all decreased from 2009 to 2014. In contrast, the proportion of firearms-related trauma admissions involving firearms injuries due to assault increased by nearly 50%.

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## NOTES

### ALASKA TRAUMA REGISTRY

The Alaska Trauma Registry is an information system containing data on the most seriously injured patients in Alaska, and the treatment that they have received. Since 1991, the trauma registry has collected data from all 24 of Alaska's acute care hospitals. The purpose of the registry is to evaluate the quality of trauma patient care and to plan and evaluate injury prevention programs. The criteria for inclusion in the trauma registry are patients with injuries who are admitted to an Alaska hospital, held for observation, transferred to another acute care hospital, or declared dead in the emergency department, and for whom contact occurred within 30 days of the injury. Injuries include trauma, poisoning, suffocation, and the effects of reduced temperature. The registry serves local and national agencies including: universities, Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), National Highway Traffic Safety Administration (NHTSA), injury prevention associations, Alaska Trauma System Review Committee (ATSRC), research entities, and legislators. More information is available at: <http://dhss.alaska.gov/dph/Emergency/Pages/trauma/registry.aspx>

**Alaska Trauma Registry:** Contact Ambrosia Romig @ 907-334-4471 or [ambrosia.romig@alaska.gov](mailto:ambrosia.romig@alaska.gov).

### INJURY MECHANISMS

**Self-inflicted.** Includes injuries in suicide and attempted suicide self-inflicted injuries specified as intentional.

**Assaults — or Homicide and Injury Purposely Inflicted by Other Persons.** Includes injuries inflicted by another person with intent to injure or kill, by any means.

**Legal intervention.** Injuries inflicted by the police or other law-enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal action. Also includes legal executions (Alaska does not execute criminals).

**Terrorism.** Injuries resulting from the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. This category was not reported in this publication because there were zero trauma admissions related to this injury mechanism.

**Undetermined — or Injury Undetermined Whether Accidentally or Purposely Inflicted.** Recorded when it is unspecified or it cannot be determined whether the injuries are accidental (unintentional), suicide (attempted), or assault.

### ICD-9 E CODES FOR MECHANISM OF INJURY

Records in the ATR with the following ICD-9 E Codes for Mechanism of Injury were included in this report:

E955 (E955.0–E955.9); E965 (E965.0–E965.9); E970; E979.4; and E985 (E985.0–E985.7)

# THE ALASKA JUSTICE STATISTICAL ANALYSIS CENTER



## ABOUT

The Alaska Justice Statistical Analysis Center (AJSAC) was established by Administrative Order No. 89, signed by Governor William Sheffield on July 2, 1986. Since that time the AJSAC has been housed within the University of Alaska Anchorage Justice Center. The AJSAC assists Alaska criminal justice agencies, as well as state and local governments and officials, with the development, implementation, and evaluation of criminal justice programs and policies through the collection, analysis, and reporting of crime and justice statistics.

Since 1972, the Bureau of Justice Statistics (BJS) and its predecessor agency, the National Criminal Justice Information and Statistics Service, has provided support to state and territorial governments to establish and operate Statistical Analysis Centers (SACs) to collect, analyze, and report statistics on crime and justice to federal, state, and local levels of government, and to share state-level information nationally. There are currently 53 SACs located in the United States and its Territories. The AJSAC is a member of the Justice Research and Statistics Association (JRSA), a national nonprofit organization comprised of SAC directors, researchers, and practitioners dedicated to policy-oriented research and analysis.

## CONTACT INFORMATION

### Location

The Alaska Justice Statistical Analysis Center (AJSAC) is housed in the University of Alaska Anchorage Justice Center, which is located on the second floor of the UAA/APU Consortium Library, Suite 213.

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## ON THE WEB

To learn more about the AJSAC research, please visit our website at: <http://www.uaa.alaska.edu/ajsac/>.

### Production

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