

The Alaska Trauma Registry

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Background

The Alaska Trauma Registry (ATR) is one of the Nation's first statewide injury surveillance systems, adopted by the Alaska Department of Health and Social Services in 1990. The ATR is an active surveillance system that collects data pertaining to hospitalizations due to injury from Alaska's acute care facilities. Data includes patient demographics, circumstances of the injury event, patient transport, treatments, and outcomes. The ATR data has two equally vital functions:

1. The evaluation of trauma care performance improvement within hospitals and of the entire trauma system; and,
2. The prevention of injuries through monitoring, program planning and evaluation, and intervention.

Methodology

Medically, "trauma" refers to a serious or critical bodily injury, wound, or shock. The ATR collects data from all 24 of Alaska's acute care hospitals by trained abstractors (e.g., nurse, medical records/health information specialist, trauma coordinator). Five of the 24 facilities use hospital staff to enter their own trauma data directly into the electronic data repository. These facilities also maintain their own facility registry. The remaining facilities use either in-house staff or contract services to abstract information to a data collection form and send to a designated contractor for entry. These facilities rely on the State to maintain their registries. Once de-identified, all data are electronically transferred to the State ATR Central Site.

Case information entered into the registry is based on case inclusion criteria developed jointly by the hospitals and ATR program personnel. Facilities use, but are not limited to, computer generated admissions and other medical records lists, emergency department logs and death logs.

Case Inclusion Criteria

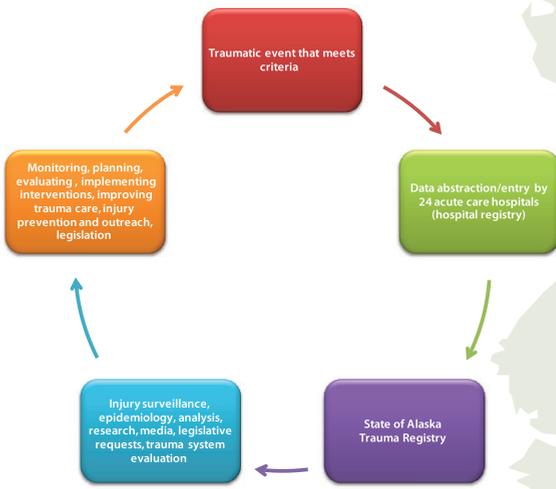
Injuries due to:

- Crashes: motor vehicle, snow machine, ATV, boating, airplane
- Falls
- Fires (include smoke inhalation)
- Animal bites (cat, dog, bear, etc)
- Effects of reduced temperature: hypothermia and frostbite
- Suffocation: near drowning or drowning, strangulation
- Struck by object or person
- Foreign body (see algorithm)
- Caught between objects
- Machinery injuries
- Cuts and lacerations
- Burns: caustic agents, sunburns, electricity
- Intentional injury: assault, homicide, suicide and suicide attempt
- Adult Poisoning (work related, non-intentional inhalation poisoning/injury)
- Pediatric poisoning and toxic events: over doses and poisonings, recreational and unintentional, of children ages 0 through 17
- Subsistence/work-related

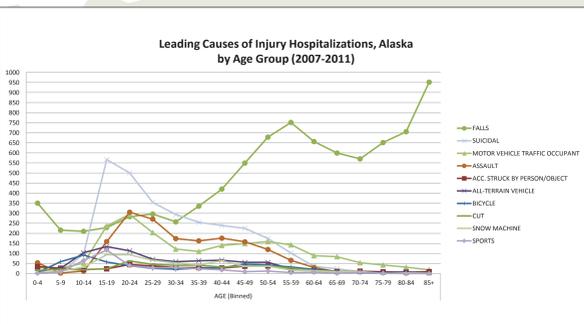
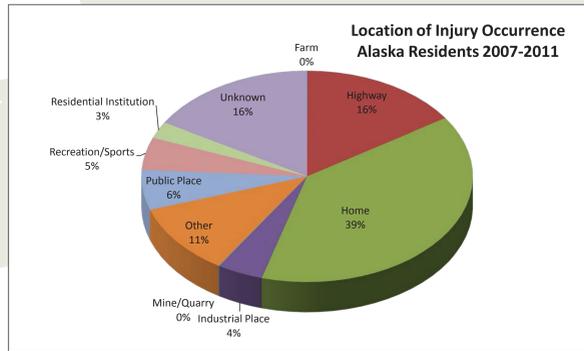
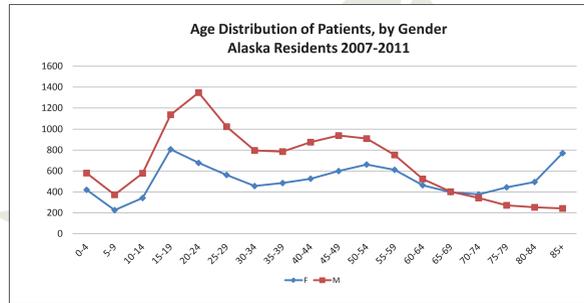
Not included are injuries due to:

- Overexertion by lifting, twisting or pushing or bending over
- Injury caused by pre-existing conditions: osteoporosis (fracture), esophageal strictures (choking or food boluses)
- Injures greater than 30 days old.
- Adult poisonings: intentional and unintentional overdose/poisoning age 18 and older
- Insect bites
- Cellulitis
- Pediatric poisonings due to drug toxicity on prescribed medications (Tegretol toxicity, Dilantin toxicity, etc)
- Paralytic shellfish poisoning (PSP) or botulism or food poisoning including mushrooms. (These are already reportable to the State)

Public Health Surveillance Trauma Registry-Based Research



ATR Statistics



Summary

Injury Hospitalizations, by Region of Injury, Alaska Residents 2007-2011: The region of injury is the region of Alaska the injury occurred.

Age Distribution of Patients, by Gender, Alaska Residents 2007-2011: The greatest peak in numbers occurs with male patients in the age range 20-24, closely followed by males in the age range 15-19. The female population peaks in the age range 15-19.

Location of Injury Occurrence, Alaska Residents, Alaska Residents 2007-2011: The location of injury is designated by the type of location where the injury occurred as specified by an external cause code.

Leading Causes of Injury Hospitalizations, Alaska by Age Group 2007-2011: Between 2007-2011, falls accounted for 38% of injury related hospitalizations in Alaska (residents and non-residents). Closely followed by Suicidal injuries and Motor Vehicle Traffic Occupant injuries.

Stakeholders

- Alaska Brain Injury Network
- Alaska Native Tribal Health Consortium
- University of Alaska Anchorage
 - Institute for Circumpolar Health Studies
- Mat-Su Regional Medical Center
- Department of Health & Social Services
 - Alaska Commission on Aging
 - Section of Epidemiology
 - Statewide Suicide Prevention Council
 - Health Promotion & Injury Prevention
 - Maternal & Child Health
- Department of Transportation
- Alaska Injury Prevention Center
- Pacific Institute for Research and Evaluation
- Alaska Mental Health Board
- South Central Foundation

Current Projects and Studies Utilizing ATR Data

- Division of Behavioral Health
 - Strategic Prevention Framework, State Incentive Grants, Tribal Incentive Grants
 - Alaska Epidemiology Profile on Substance Use, Abuse, Dependency, and Treatment
- DHSS/ Section of Epidemiology
 - Health Impact Assessment Program
 - Outcome of Severe Trauma in Anchorage, 2001-2010
- DHSS/University of Alaska Anchorage, Masters in Public Health Thesis
 - The Quality and Utility of Alaska's Unintentional Poisoning Data: A Descriptive Analysis
- DHSS/ Section of Epidemiology
 - Health Impact Assessment Program
- DHSS/Section of Health Planning & Systems Development
 - Alaska Roadway Crash Outcomes Study (ARCOS)
- Alaska Native Tribal Health Consortium
 - Alaska Native Injury Atlas of Morbidity and Mortality
 - Alaska Native Burden of Injury Study
- Institute for Circumpolar Health Studies
 - Association Between Variation and Incidence of Cold-Related Injuries in Alaska
- CDC/Arctic Investigation Program
 - Morbidity & Mortality Associated with Unintentional Falls Through Ice among Alaska Natives
- Harvard Medical School, Division of Trauma, Burns, Surgical Critical Care
 - Review of Burn Injuries in Alaska
- University of Colorado, Center for American Indian & Alaska Native Health
 - Tanana Chiefs Conference Strategic Prevention Framework/ Tribal Incentive Grant Substance Abuse and Mental Health Service Administration (SAMHSA Grant)

Partnerships

The ATR partners with many programs to provide data and conduct research and analysis. Currently, there are two linkage projects being conducted to give a broad scope of understanding to the process of trauma. These are;

- Linkage with Emergency Medical Service Aurora Data System
- Linkage with Hospital Discharge Data Set (HDDS) & Emergency Department Discharge Data Set (EDDS), as a part of the ARCOS project

Epidemiology Bulletins

Hospitalizations Due to Motorcycle Crash Injuries — Alaska, 2001–2010. Bulletin No. 20, September 25, 2012. Available at: http://www.epi.hss.state.ak.us/bulletins/docs/b2012_20.pdf

Characteristics of Suicide Among Alaska Native and Alaska non-Native People, 2003–2008. Bulletin No. 1, July 30, 2012. Available at: http://www.epi.hss.state.ak.us/bulletins/docs/rr2012_01.pdf

Hospitalizations due to Unintentional Carbon Monoxide Poisoning — Alaska, 1993–2010. Bulletin No. 15, July 26, 2012. Available at: http://www.epi.hss.state.ak.us/bulletins/docs/b2012_15.pdf

Toxicity and Hospitalizations due to Opioid Pain Relievers — Alaska, 2001–2010. Bulletin No. 26, December 5, 2012.

What's New

Beginning in 2013, the registry software will be upgraded and accessible through the internet. This enables data abstraction and entry to be completed in-house by all 24 facilities. This advancement will allow each facility immediate access to their data for trauma care performance improvement, as well as quicker turn-around-times for the data to be included into the state registry.

Two new features included in this upgrade are the ability to link the Trauma Registry and the Emergency Medical Services data system, and the Mass Casualty Module for real-time surveillance. Both new features advance the registries ability for real-time tracking and provide the capacity to collect more information surrounding a traumatic event.

Leading Causes of Non-Fatal Hospitalized Injuries, Alaska Residents 2007-2011, All Races, Both Sexes, Disposition: All Cases Quilt <http://dhss.alaska.gov/dph/Emergency/Pages/trauma/default.aspx>

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