Injury is a Leading Cause of Death in Children

Injuries are a major public health problem across the United States and in Hawaii. However, injuries are not random chance events, or “accidents”. Most injuries follow a very predictable sequence of events and can be prevented using specific strategies.

An average of 10 child (infants through 5 years of age) residents of Hawaii died each year as a result of an injury. For every child that died from an injury, another 13 children were hospitalized (128 per year), and another 906 (9,058 per year) were treated and released from an emergency department (ED). These numbers do not include children who were treated in a physician’s offices or at home.

There were no clear trends in the annual number ED visits, but consistent decreases in hospitalizations, from 171 in 2013 to a projected 85 in 2017. The number of fatal injuries varied inconsistently from 5 to 13 each year, although a decreasing trend was evident over the 2009 through 2018 period.

Data sources: Mortality data is from the death certificate database of the Hawaii Department of Health. Data on ED visits and hospitalizations is from the Hawaii Health Information Corporation (HHIC). Only HHIC records with an injury-related principal diagnosis were included. Records of patients who died in the hospital or who were transferred to another hospital were excluded.

Figure 1: Annual Injuries among Children Ages 0-5 Years, Hawaii, 2014-2018

Figure 2: Percent of Injury Deaths, Hospitalizations and Emergency Department Visits among Children Ages 0-5 Years, by Sex, Hawaii, 2013-9/2017

Childhood Injury by Sex

Boys suffered more fatal and nonfatal injuries than girls, comprising about 6 out of every 10 injured children. For nonfatal injuries treated in EDs, the proportion of boys increased across the age range, as they comprised 53% of infant patients, but 60% of those who were 5 years old. Gender was more evenly distributed across nonfatal injuries from drownings, car and truck crashes and suffocations, as girls comprised nearly half (47%) of these patients.

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https://www.cdc.gov/injury/stateprograms/hi.html
Injury Deaths in Infants

Unintentional suffocation while in bed was by far the leading cause of injury-related death among infants in Hawaii, accounting for 54% (12) of 22 total deaths. Nearly all (83%) of these victims were less than 5 months of age. The number of suffocations would be nearly tripled if the 23 infant deaths from SIDS were also included.

Homicides were the next most common cause of injury-related death among Hawaii infants.

Injury Deaths in Young Children

Nearly all (87%) of the injury-related deaths among 1 through 5 year-old Hawaii residents were unintentional, while 13% resulted from homicides or possible homicides. Drownings (30% of the total) and pedestrian crashes (30%) accounted for more than half of the 30 fatal injuries this age group. Six of the drownings were in swimming pools, and none in the ocean. Almost all of the victims were under 4 years of age, and most were males.

All but one of the 9 fatally injured pedestrians were killed in non-traffic crashes, i.e. not on public roadways.
Falls were by far the most common cause of injury-related hospitalizations among children, accounting for more than one-third (43%) of the total, both among infants (47%) and residents 1 to 5 years of age (42%). Falls from “buildings or other structures”, furniture (particularly beds) and playground equipment were the most frequently coded types of falls. Injuries from fires and hot objects (13%), poisonings (9%), and motor vehicle crashes (7%) and drownings (6%) were also leading causes of the hospitalizations. Almost all (94%) of the burn injuries were from contact with “hot substances or objects” (not open flames), including 12 hospitalizations each year from “hot liquids and vapors”. Half (50%) of the burn patients were 1 year-olds. Almost all of the injuries from bicycle crashes did not involve a motor vehicle. Injuries from assaults were more common among infants (10% of their total) compared to older children (1%), although there were only 3 such hospitalizations each year among infants. Most (86%) of the unintentional poisonings were from drugs and medicinal substances.
Similar to hospitalizations, unintentional falls were the leading cause of injury-related ED visits among children, accounting for nearly half (45%) of the total, and 61% of the ED visits among infants. Almost all (99%) of the injuries were coded as unintentional; there were very few coded as assaults (23 per year) or possible assaults (33). The next most common cause was “striking against or struck by objects or persons”, with little further detail. Among the “animal bites and stings” causes, bites from “nonvenomous arthropods” (insects) were most common (251 per year), followed by dog bites (134), wasps and bees (36), and centipedes (25). Only 1% (123 injuries per year) of the injuries were caused by motor vehicle crashes. More children were more often hurt in bicycle crashes that did not involve a motor vehicle (90 injuries per year), than in crashes that involved a motor vehicle (4 per year).
The Emergency Medical Service and Injury Prevention Systems Branch (EMSIPSB) support several partners in the development, implementation, and evaluation of injury prevention programs that impact this special population directly, or indirectly through shared risk and protective factors.

**Hawaii Partnership to Prevent Underage Drinking (HPPUD)**

In Hawaii, younger drivers 21 years old and under are disproportionately involved in motor vehicle crashes where the driver tests positive for alcohol or drugs. Alcohol impaired drivers put themselves and others at risk for serious injury or death. HPPUD is a coalition providing direct connection to youth and other partners working on substance abuse prevention related initiatives across the State of Hawaii. [https://www.hppud.org/](https://www.hppud.org/) containing fact sheets, press releases, slogans, information about laws pertaining to underage drinking, and cultural norms messages.

**Hawaii Drowning and Aquatic Injury Prevention Advisory**

Drowning continues to be one of the main causes of death for our young children in Hawaii. The EMSIPSB, in collaboration with the Hawaii Drowning and Aquatic Injury Prevention Advisory Committee, launched a new website to encourage residents and visitors to swim at beaches with lifeguards to prevent drownings or serious injury in the ocean. The website, [https://hioceansafety.com/](https://hioceansafety.com/) aims to decrease risk factors and increase “protective factors” for ocean goers, including being at a lifeguard beach.

**Keiki Injury Prevention Coalition (KIPC)**

In partnership with the Hawaii Core State Violence and Injury Prevention Program (Core SVIPP) grant, KIPC is focused on improving the accessibility, comprehensiveness, and sustainability of educational resources for home visitors teaching child and family safety practices. In the early stages, KIPC translated the printed developmental based checklist, into a web-based guide for home visitors who teach *Keiki Safety Tips* (e.g., Fall Prevention, Poison Prevention, Child Passenger Safety, ect.) to families. [http://kipchawaii.org/](http://kipchawaii.org/)

**Child & Family Service (CFS)**

Evidence suggest that reducing intimate parent violence by ensuring parents have a neighborhood level protective factor (coordination of services among community agencies), can also reduce child maltreatment outcomes. In partnership with the Hawaii Core SVIPP grant, CFS is developing motivational interviewing (MI) training modules for the Your Ohana - Hawaii Home Visiting Network, focused on enhancing the home visitor’s ability to discuss intimate parent violence with families and refer to community services.

Notes: Data sources

All injuries are considered unintentional unless specified otherwise. Reference to any commercial entity or product or service on this page should not be construed as an endorsement by the Government of the company or its products or services.