



AT A GLANCE

- The CDC provides standardized definitions of AHT for use with coded hospital discharge and emergency department encounter data.
- Using the most inclusive definitions, there were an average of four cases of AHT per year identified in inpatient admissions and four per year in ED encounters from 2010-2014.

Abusive head trauma (AHT) is traumatic brain injury due to assault in children. The Centers for Disease Control and Prevention (CDC) defines non-fatal AHT by a code for both a head injury and an external cause of injury code (E-code) describing the intent of the injury as assault, and excluding injuries from accidental causes. We examined inpatient admissions and emergency department (ED) encounters meeting the CDC definitions for Montana residents age 5 years and under from 2010 to 2014.¹

The CDC's narrow definition of AHT is highly specific. The broad definition includes less specific injuries with a higher false positive rate than the narrow definition.² E-codes indicate definite, presumptive, or probable abuse. The CDC recommends using a narrow definition of head injury, with definite and presumptive abuse, for targeted interventions and using broadly defined head injuries and probable abuse for surveillance of populations.

Using narrow definitions, there were 14 inpatient admissions and 10 ED encounters for non-fatal AHT presenting to Montana facilities between 2010 and 2014. Using broad definitions, there were 20 inpatient admissions and 21 ED encounters for non-fatal AHT between 2010 and 2014, an average of 8.2 per year. Sixteen of 20 admissions were infants under one year of age (admission rate 26 per 100,000; 95% confidence interval 15 - 43) and 18 of 20 admissions were children between birth and two years (15 per 100,000; 95% CI 9 – 23).

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1. The Montana Hospital Discharge Data System (MHDDS) receives annual de-identified hospital discharge data sets through a Memorandum of Agreement with the Montana Hospital Association. Most hospitals in Montana participate in voluntary reporting from their Uniform Billing forms, version 2004. The MHDDS receives information on more than 90% of inpatient admissions in the state. It does not receive data on outpatient procedures at this time.

2. Parks SE, Anest JL, Hill HA, Karch DL. *Pediatric Abusive Head Trauma: Recommended Definitions for Public Health Surveillance and Research*. Atlanta (GA): Centers for Disease Control and Prevention; 2012.