Glossary of Terms Used in This Brief

Demography - characteristics of a population, such as age, gender, race/ethnicity

Injury epidemiology - the study of injuries and how they impact people

Injury surveillance - the on-going, systematic collection, analysis, interpretation, and dissemination of injury data

On-line data sources - a database that is accessible through a web-site

Population-based - all events (injuries) in a defined population are included in the data collected. This allows population based rates to be determined OR weighting factors to be applied to a sample count in order to estimate the number or rate for the defined population.

Queriable - on-line data sources that allow a person to directly request and receive specific information through the web-site

Rate - the number of injuries or deaths divided by the number of people in the population at-risk, usually expressed in events per 100,000 population

Risk factors - characteristics or behaviors of a population that may increase or decrease the risk of injury (examples include: age, gender, race/ ethnicity, restraint or helmet use, alcohol use)

Trauma centers - Hospitals that provide specialized care to injured individuals. Trauma centers are designated based on their ability to care for trauma patients. The designations range from Level I with the highest level of comprehensive care for patients with complex injuries to Level IV with initial evaluation, stabilization, diagnosis, and transfer to a higher level of care. As of April 2004, three Level I centers, one Regional Pediatric Trauma Center, nine Level II centers, and 16 Level III centers contribute data to the Colorado Trauma Registry. The remaining 36 designated facilities are Level IV. For more information on trauma center designation and criteria, see www.cdphe.state.co.us/tp/tphom.html

Injury Epidemiology Brief

Guide to Injury Data in Colorado

July 2004

Colorado Department of Public Health and Environment

Introduction

Injuries are a major contributor to death and disability in the US. In Colorado, injuries are the third leading cause of death, and each year more than 28,000 Coloradans are hospitalized for injuries. One of the first steps in preventing injuries is to examine or collect data to help define the problem and to identify possible risk factors in various populations. Several different data sets for *injury surveillance* exist. These data sets are developed and maintained by a variety of entities including federal, state, and local agencies.

CDPHE Data Sources on Injury in Colorado

The Colorado Department of Public Health and Environment (CDPHE) gathers data on injury hospitalizations and deaths and on behavioral *risk factors* from several different sources. The Colorado Trauma Registry, maintained by the *Injury Epidemiology Program* at CDPHE, is a statewide repository for data on injury hospitalizations and deaths. Data are gathered from three main sources:

Mortality Records (Death Certificates)
Death certificate data are compiled by the Health Statistics Section at CDPHE. Since all deaths in the state are included, the data are *population-based* and allow for computation of *rates*. To ensure confidentiality, the number of deaths are published only for categories with three or more deaths. Details are available on some *risk factors* for injury. **How to access:** Death certificate data are available on-line through the Colorado Health Information Dataset (CoHID) at www.cdphe.state.co.us/cohid/ (see page 2). For injury death data requests, contact the Injury Epidemiology Program at 303-692-3005 or injury.epi@state.co.us. For additional death certificate data requests or for reports, contact the CDPHE Health Statistics Section at 303-692-2160 or health.statistics@state.co.us or www.cdphe.state.co.us/hs.

Hospital Discharge Data
The Colorado Health and Hospital Association collects data on patients who were admitted to a Colorado hospital. The data come from hospital billing forms and are *population-based*. Emergency department visits are not included. Details on some *risk factors* for injury are available. **How to access:** Injury hospitalization data by county of residence are available on-line through CoHID at www.cdphe.state.co.us/cohid/ (see page 2) For additional injury hospitalization data requests, contact the Injury Epidemiology Program at 303-692-3005 or injury.epi@state.co.us.

Case Abstracts from State Trauma Centers
The Injury Epidemiology Program at CDPHE receives case abstract data from trauma nurse coordinators and registrars at all Level I, II, and III *trauma centers* in the state. These facilities represent 43 percent of Colorado acute care hospitals and provide care to more than 70 percent of the trauma patients hospitalized in Colorado. This data source provides some *risk factor* details like helmet and seatbelt use. The data are not *population-based*, so *rates* are not available. **How to access:** For data requests, contact the Injury Epidemiology Program at 303-692-3005 or injury.epi@state.co.us.

Injury in Colorado Report

In June 2002, the CDPHE published the *Injury in Colorado* report that provides data tables and descriptive chapters about the leading causes of injury deaths and hospitalizations in Colorado. The report provides information on *risk factors,* the circumstances under which these injuries occur, and the population segments and geographic regions of the state that are particularly at-risk. Additionally, suggestions on potential individual, family, and community injury prevention strategies are also provided. The report is available on-line at www.cdphe.state.co.us/pp/injepi. For print copies of the report, contact the Injury Epidemiology Program at 303-692-3005 or injury.epi@state.co.us.

Traumatic Brain Injury (TBI) Data

The Injury Epidemiology Program at CDPHE collects data on all patients with a TBI resulting in hospitalization and/or death from 1991 to the present. This statewide, *population-based* dataset provides information on the incidence of TBI, common causes, risk factors and the groups at greatest risk for TBI. **How to access:** For data requests, contact the TBI surveillance system coordinator at 303-692-3003.

Child Death Review Data

The Colorado Child Fatality Review Committee at CDPHE reviews the cricumstance of death for all children ages 0-17 who died in Colorado from 1989 to the present. A variety of data sources are used in the review. **How to access:** Reports are available at www.cdphe.state.co.us/pp/cfrc. For data requests, contact the Child Fatality Review Committee coordinator at 303-692-2573 or cfr.committee@state.co.us.

Occupational Injury Deaths

The Census of Fatal Occupational Injuries (CFOI) database, from the Bureau of Labor Statistics, includes information on fatal occupational injuries. CDPHE provides the Colorado database on-line. Data tables are available by year from 1994. **How to access**: On-line at www.cdphe.state.co.us/hs/cfoi/ or call 303-692-2173.

Maternal and Child Health County Data Sets

The Maternal and Child Health Section of CDPHE has County Data Sets that include injury data on child motor vehicle deaths, teen suicides and homicides, and child injury hospitalizations for each county. **How to access**: This information is available at www.cdphe.state.co.us/ps/mch/mchhom.asp.

Other Sources of Colorado Data

The **Colorado State Patrol** has motor vehicle crash and fatality information at www.csp.state.co.us.

The **Colorado Department of Local Affairs** (DOLA) maintains state data including census, population, *demographic*, and economic data. The data are generally available at county and some city levels. **How to access**: On-line at dola.colorado.gov/demog/demog.cfm. Population data from DOLA at the state and county level are also available on CoHID at www.cdphe.state.co.us/cohid/. State and US census data are available at www.census.gov.

The **Colorado Bureau of Investigation** provides reports on homicides and domestic violence based on the Uniform Crime Reports filed by law enforcement agencies. **How to access**: *Crime in Colorado* reports are available on-line at cbi.state.co.us/dr/docs_reports.asp.

Colorado Health Information Dataset (CoHID)

Description: An interactive web-based data system that provides health and demographic data from a variety of data sets. Data sets currently available include births, deaths, population, injury hospitalizations, birth defects, cancer incidence, behavioral risk factor statistics, and Colorado Pregnancy Risk Assessment Monitoring System (PRAMS). The data sets are *queriable*. CoHID was created through a combined effort of local and state public health agencies, and resides within the Center for Health and Environmental Information and Statistics (CHEIS) at CDPHE.

How to access: On-line at www.cdphe.state.co.us/cohid/. A factsheet with background information on how to use CoHID is available at www.cdphe.state.co.us/hs/pubs/cohidHW2003.pdf

---

Self-reported Health Behavior Surveys

The **Behavioral Risk Factor Surveillance System** (BRFSS) is a national, ongoing telephone survey of non-institutionalized adults regarding their health *risk factors* and preventive health practices. Injury data include seatbelt and restraint use by children and adults, bicycle helmet use, and smoke detector information. The BRFSS is *queriable on-line*, and Colorado information can be compared to other states and the US. **How to access**: Through CoHID at www.cdphe.state.co.us/cohid/ for state and county data (when available) or CDC at www.cdc.gov/brfss for state and US data.

In 2004, the CDPHE began to collect data on injuries and *risk factors*, as well as other topics, for Colorado children ages one through 14. For more information on the **Child Health Survey**, contact the CDPHE Health Statistics Section at 303-692-2160 or health.statistics@state.co.us or www.cdphe.state.co.us/hs.

The **Youth Risk Behavior Survey** (YRBS) collects data from school-based surveys to monitor health *risk factors* for teens in grades 9-12. Injury-related topics include seat belt use, motorcycle and bicycle helmet use, suicides and suicide attempts, fights, weapon carrying, and drinking and driving. In Colorado, the YRBS is not *population-based*, therefore it does not represent all 9th-12th graders in the state. The data represent only those students who completed the survey. **How to access**: Data tables and reports are available from CDPHE at www.cdphe.state.co.us/hs/yrbs/ or from CDC at www.cdc.gov/nccdphp/dash/yrbs.

Colorado On-line Injury Data from Federal Data Sources

Web-based Injury Statistics Query and Reporting System (WISQARS)

CDC's WISQARS provides data on injury deaths, the leading causes of death, detailed data on injury causes of death, and information on Years of Potential Life Lost. This *population-based* data source on deaths is *queriable* for 1981 to the present. Data queries also allow Colorado *rates* to be compared to other states, regions and the US. **How to access:** On-line at www.cdc.gov/ncipc/wisqars.

Fatality Analysis Reporting System (FARS)

FARS provides data on motor vehicle crashes occurring on public roads which result in the death of at least one occupant or nonmotorist. This *queriable* database provides detailed information on the people, vehicles, and circumstances of the crash, and many *risk factors*. Data are available at the county level. Because the data are *population-based*, *rates* can be determined by using population data from other state and federal sources. **How to access:** On-line at www-fars.nhtsa.dot.gov.

Additional Federal Injury Data Sources

National Electronic Injury Surveillance-All Injury Program (NEISS-AIP)

Since July 2000, the Consumer Product Safety Commission's (CPSC) NEISS system collects data on all types of nonfatal injuries and poisonings from a national representative sample of US hospital emergency departments. The NEISS-AIP is a collaborative effort between CDC and CPSC. The *on-line queriable* dataset provides national estimates of injuries seen at hospital emergency departments and is available at www.cdc.gov/ncipc/wisqars.

National Occupant Protection Use Survey (NOPUS)

This survey uses direct observations to evaluate restraint use and motorcycle helmet use. Reports and Research Notes are available for national, regional and state levels at www.nhtsa.dot.gov/people/ncsa.

National Ambulatory Medical Care Survey (physician offices) and the **National Hospital Ambulatory Medical Care Survey** (hospital emergency and outpatient departments) are CDC surveys of a sample of records from a variety of medical patient care settings. Reports on a national level are available at www.cdc.gov/nchs/.

Local Agency Data Sources

Local Hospitals: Many of the trauma centers in Colorado collect their own injury data and produce their own reports.

Local Emergency Medical Services (EMS): Many local ambulance and emergency response agencies collect their own data.

Local police traffic reports can provide information on motor vehicle-related crashes and injuries.

City or County Planning and Engineering Departments may collect data and map where and how motor vehicle crashes occur. The information usually comes from local police reports.

Schools may collect school-based injury reports.

County Extension Agencies may have data on farm and ranch injuries.

Other Agencies: Animal control agencies may collect data on animal bites. Recreation agencies may have information on playground injuries.

The words in **boldface** are defined in the Glossary on page 4.