Working with injury data

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Introduction

- Overview of Working with Injury Data session
- Injury-related NCHS publications
- Injury Data and Resources website
Session Overview

Comparisons of injury estimates from a population-based survey and provider based surveys
Li Hui Chen MS PhD, Office of Analysis and Epidemiology, NCHS

Comparing state and national injury statistics: Examples from Colorado
Holly Hedegaard MD MSPH, Colorado Department of Public Health and Environment

International injury comparisons using ICE developed injury indicators
Margaret Warner PhD, Office of Analysis and Epidemiology, NCHS

Utilizing severity to interpret changing trends of hospitalized injury rates
Claudia A. Steiner MD, MPH, AHRQ

Identifying Accidental Passenger Vehicle Non-transport Incidents in the NVSS
Seymour D. Stern, National Center for Statistics and Analysis, NHTSA
Injury-related NCHS publications

- Annual NCHS publications
- Special reports
- NCHS Data Brief
- Series reports
- Fact sheets
On the web

- On-line tools to access NCHS injury data

Injury Data and Resources Website
  - NCHS Databases
  - ICE on Injury Statistics
  - Tools and Frameworks
  - Data Access and Resources
Injury Data and Resources

The purpose of this Web site is to provide an overview of injury morbidity and mortality data and statistics available from the National Center for Health Statistics (NCHS) and to provide details on injury surveillance methodology and tools to assist in data analysis.

- NCHS Databases
  Resources for injury data from various NCHS surveys and data collection systems

- International Collaborative Effort on Injury Statistics
  Learn about the mission and current activities of ICE

- Tools and Frameworks
  Tools for classifying International Classification of Disease (ICD) Codes

- Data Access and Resources
  Related resources in injury data

What's New

- QuickStats: Percentage of Injuries that Resulted in Time Lost from Work or School --- National Health Interview Survey, United States, 2004—2007 (2/2010)
- Recommended actions to improve external-cause-of-injury coding in state-based hospital discharge and emergency department data systems (12/2009)
- Increase in Fatal Poisonings Involving Opioid Analgesics in the United States, 1999-2006 (9/2009)
Mortality Data

Data Source
- Mortality Data from the National Vital Statistics System

Mortality Data - Injury Summary
Causes of death are coded according to ICD-10. Injury can be described in two ways using ICD-10: (1) external cause of injury and (2) the nature of the injury. External cause codes describe the mechanism or cause of the injury (e.g., motor vehicle crash) and the manner or intent of the injury (e.g., unintentional). The nature of injury codes describe the body region or site of the injury (e.g., hip) and the diagnosis (e.g., fracture).

For more information see: ICD Injury Matrices

Publications
- Mortality Data Publications

Presentations
- Mortality Data Presentations
Tools for Classifying ICD Codes

Overview of the ICD Injury Matrices

External Cause-of-Injury (E-code) Matrices

ICD-10
- Codes for the Matrix: [PDF - 36 KB] [XLS - 37 KB]
- SAS Input Statements [SAS - 5 KB]

ICD-9
- Codes for the Matrix: [PDF - 41 KB] [XLS - 28 KB]
- SAS Input Statements [SAS - 7 KB]

ICD-9 modified to be consistent with ICD-10 External Cause of Injury
- Codes for the Matrix: [PDF - 57 KB] [XLS - 34 KB]
- SAS Input Statements [SAS - 11 KB]

ICD-9-CM (Matrix updated and maintained by NCIPC)
ICD Injury Matrices

On this Page
- What are the matrices?
- Why are there so many matrices?
- Which ICD revisions, clinical modifications, and injury codes have matrices available?
- What are External Cause of Injury codes?
- What are the injury diagnosis codes?
- What are External cause of injury matrices?
- How to map ICD–9 To ICD–10 for external causes
- What is the Barell Matrix (ICD–9–CM)?
- What is the Injury Mortality Diagnosis (IMD) Matrix (ICD–10)?
- Suggested citations for the matrices
- Other references for the matrices
- ICD codes for matrices and SAS statements

What are the matrices?
The ICD Injury matrices are frameworks designed to organize ICD coded injury data into meaningful groupings. The matrices were developed specifically to facilitate national and international comparability in the presentation of injury statistics.

Why are there so many matrices?
Injuries can be described in the ICD in two ways; either (1) as “external cause” which describes the cause and intent in a single code or (2) as the “nature of injury” which describes the body and nature of injury in a single code. There are multiple revisions of the ICD. There are also clinical modifications which are more detailed for use with morbidity data. There is also a mapping between the revisions of the ICD.
### ICD Injury matrices

- **External cause matrix** categorizes ICD codes by cause & intent.
- **Nature of injury matrix** categorizes ICD codes by nature & body region.

#### ICD Revisions & modifications

<table>
<thead>
<tr>
<th>ICD Revisions &amp; modifications</th>
<th>External cause of injury</th>
<th>Nature of injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD–9</td>
<td>✓ Matrix</td>
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</tr>
<tr>
<td>ICD–9–CM</td>
<td>✓ Matrix</td>
<td>✓ Barell Matrix</td>
</tr>
<tr>
<td>ICD–10</td>
<td>✓ Matrix</td>
<td>✓ Injury Mortality Diagnosis Matrix</td>
</tr>
</tbody>
</table>

- For codes and SAS programs see [http://www.cdc.gov/nchs/injury/injury_tools.htm](http://www.cdc.gov/nchs/injury/injury_tools.htm)
For more information, see:
www.cdc.gov/nchs/injury.htm