2004 Report

Major Injury in Canada

(includes 2002–2003 data)

National Trauma Registry

Canadian Institute for Health Information

Institut canadien d'information sur la santé

Canadian Institute for Health Information
377 Dalhousie Street
Suite 200
Ottawa, Ontario
K1N 9N8

Telephone: (613) 241-7860
Fax: (613) 241-8120
www.cihi.ca

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This report was developed at CIHI under the direction of Nizar Ladak, Director, Health Services Information, by:

- Fang Yang, Analyst
- Cassandra Linton, Senior Analyst
- Leila Abboud, Consultant
- Nicole de Guia, Consultant
- Margaret Keresteci, Manager, Clinical Registries

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Questions regarding this report should be directed to:

Leila Abboud
National Trauma Registry
Canadian Institute for Health Information
90 Eglinton Avenue East, Suite 300
Toronto, Ontario
M4P 2Y3
Tel: (416) 481-1616, ext. 3392
Fax: (416) 481-2950
Email: ntr@cihi.ca

National Trauma Registry 2004 Report
Major Injury in Canada (includes 2002–2003 data)

Table of Contents

National Trauma Registry 2004 Report
Major Injury in Canada (includes 2002–2003 data)

Table of Contents (cont'd)

List of Figures

National Trauma Registry 2004 Report
Major Injury in Canada (includes 2002–2003 data)

Table of Contents (cont'd)

List of Figures (cont'd)

List of Tables

Executive Summary

Introduction

The purpose of the 2004 National Trauma Registry Major Injury in Canada report is to provide a descriptive analysis of patients hospitalized with major trauma in participating facilities in Canada for the 2002–2003 fiscal year (April 1, 2002 to March 31, 2003). The data source for this report is the National Trauma Registry Comprehensive Data Set (NTR CDS), which is managed by the Canadian Institute for Health Information. Data for the 2002–2003 NTR CDS were obtained from 39 participating facilities in seven provinces (British Columbia, Alberta, Manitoba, Ontario, Quebec, New Brunswick, and Nova Scotia). It is estimated that over 90% of all major trauma cases are captured in the NTR CDS.

Trauma cases were selected based on an Injury Severity Score (ISS) > 12 and the presence of specific External Cause of Injury codes (E Codes) that meet the definition of trauma. Examples of causes of injury that are excluded from this definition are poisonings by drugs and gases, adverse effects of drugs, medicinal and biological substances, and late effects. To be included in the NTR CDS, cases also had to meet one of the following criteria:

- Were admitted to a participating hospital, or
- Were treated in the Emergency Department of a participating hospital (not admitted), or
- Died in the Emergency Department of a participating hospital after treatment was initiated (not admitted).

2002–2003 Highlights

In 2002–2003, there were 9,892 major injury cases with an ISS > 12 in the NTR CDS. These injury cases accounted for 162,082 hospital days in participating facilities, with an average length of stay (LOS) of 17 days (median = 9).

Most (72%) of these major injury patients were males. The mean age for all cases was 43 years (median = 41). Among all cases, the average Injury Severity Score (ISS) was 24 (median = 22). The most common type of injury was a head injury (65%), followed by orthopaedic (64%) and superficial (59%) injuries. Most cases had a blunt injury (94%), 4% had a penetrating injury, and 2% had a burn injury.

Of the 9,892 injury cases, 14% died, either in the Emergency Department (n = 371) or after admission to hospital (n = 998).

Causes of Injury

Overall

The leading causes of injury among all major injury cases in the 2002–2003 NTR CDS were motor vehicle collisions, which were responsible for almost half of the cases (47%, n = 4,682), followed by unintentional falls (29%, n = 2,898). Homicide and injury purposely inflicted (excluding poisoning) was the third leading cause (8%, n = 810), followed by the "Other Incidents" category (6%, n = 551). Top causes in this latter category were being unintentionally struck by an object or person (n = 180), being unintentionally struck by a falling object (n = 142), and incidents caused by machinery (n = 52).

By Age Group

When cause of major injury hospitalization was analyzed by various age groups (<20, 20–34, 35–64, 65+ years), some differences were evident, particularly among those 65 years of age and over. Motor vehicle collisions were the leading causes of injury for all age groups except among seniors. In this group, unintentional falls (62%, n=1,313), followed by motor vehicle collisions (30%, n=623) were the leading causes of injury. Homicide and injury purposely inflicted by another person was among the top five leading causes in all age groups under the age of 65 years. However, it did not appear among the top five causes of injury among those over 65 years of age.

Motor Vehicle Collisions

Nearly half (47%, n=4,682) of all major injury hospitalizations were due to motor vehicle collisions. Over one-half of the injured persons in motor vehicle collision injury cases were drivers (54%, n=2,549), and nearly one-quarter (22%, n=1,040) were passengers. Ten percent (n=445) were motorcycle drivers or passengers. Sixteen percent (n=760) were pedestrians. Four percent (n=170) were pedal cyclists.

Unintentional Falls

Twenty-nine percent (n=2,898) of all major injury hospitalizations were due to unintentional falls. Overall, the most common specified types of falls were falls on or from stairs/steps (20%, n=573) and falls on the same level from slipping, tripping, or stumbling (14%, n=406). The most common types of falls among those under 20 years of age were falls from one level to another (24%, n=70), including falls from playground equipment. Among those 20 to 34 years of age, falling from buildings and other structures was the most common type of fall (27%, n=75). The most common fall among those 35 to 64 years and 65 years and over were falls on or from stairs and steps (20%, n=204 and 24%, n=312 respectively).

Context of Injury

Nearly one-half (48%, n=4,704) of the major injury cases were reported to have occurred on the street or highway, 20% (n=2,013) at home, 6% (n=567) in a recreational or sport setting, 4% (n=369) in an industrial setting, and 22% (n=2,220) in other settings. Less than one percent (0.2%, n=19) of cases were missing place of occurrence information.

Overall, 12% (n=988) of major injury cases were reported to be sports/recreationally related. The proportion of sports and recreational injury cases in participating provinces ranged from 11% in each of Ontario and Manitoba to 18% in New Brunswick. Sports/recreation related injury information was not available from Quebec.

Seven percent (n=677) of all injury cases were reported to be work-related. The proportion of work related injury cases by participating province ranged from 5% in Ontario to 10% in Alberta.

Thirteen percent (n=980) of all major injury cases were documented to have a positive blood alcohol concentration (BAC) (BAC≥17.0 mmol/L, equivalent to 80 mg/100mL, which corresponds to the legal limit for driving). The proportion of positive BAC injury cases by participating province ranged from 11% (n=169) in British Columbia to 16% (n=301) in Alberta. BAC information was provided for Quebec, but lacked the specificity required to determine if the concentration was over 17.0 mmol/L.

Clinical Aspects of Injury

Deaths

Fourteen percent (n = 1,369) of the 9,892 major injury cases died either in the Emergency Department or in-hospital. The three leading causes of major injury in-hospital deaths were motor vehicle collisions (42%, n = 570), followed by unintentional falls (32%, n = 433), and homicide and injury purposely inflicted by another person (excluding poisoning) (8%, n = 116).

Discharge Disposition

Of the vast majority of cases who were discharged alive (86%, n = 8,523), 57% (n = 4,826) were discharged home, including 1,237 who were sent home with support services. Nineteen percent (n = 1,648) were discharged to a rehabilitation facility. The remaining cases were discharged to another acute care facility (16%, n = 1,370) and other types of facilities (8%, n = 669).

Injury Severity Score (ISS)

The overall mean ISS was 24. The mean ISS of cases who died was 33, compared to a mean ISS of 23 for survivors. The mean ISS was higher among cases in the 20 to 34 year old age group (ISS = 25) compared to the others (ISS = 24 for those under 20 years and those aged 35 to 64 years, ISS = 23 for 65 years and over). Motor vehicle collision injury cases had the highest mean ISS (ISS = 26) followed by intentional injury cases (i.e. homicide and suicide) (ISS = 23) and unintentional fall cases (ISS = 22). All other causes combined had a mean ISS of 23. Note that cases with ISS > 12 are included in this report.

Length of Stay (LOS)

The overall mean LOS was 17 days. The mean LOS among survivors was 18 days, compared to a mean LOS of 10 days for cases who died in-hospital. Mean LOS appeared to increase with increasing age. Cases 65 years of age and over had a mean LOS of 19 days, whereas cases under 20 years had a mean LOS of 14 days. Motor vehicle collision cases had the highest mean LOS (LOS = 18) followed by unintentional falls (LOS = 16) and intentional injury cases (homicide and suicide) (LOS = 15).

Electronic copies of the 2004 National Trauma Registry Major Injury in Canada *report are available free of charge at www.cihi.ca/ntr. Paper copies of the report are available to order at the same site. Copies of the executive summary, media release, and recent bulletins can be downloaded free of charge from the CIHI Web site. Queries regarding this report may be addressed to ntr@cihi.ca.*

About the Canadian Institute for Health Information (CIHI)

The Canadian Institute for Health Information (CIHI) is an independent, pan-Canadian, not-for-profit organization working to improve the health of Canadians and the health care system by providing quality health information. Committed to safeguarding the privacy and confidentiality of personal health information, CIHI's mandate is to coordinate the development and maintenance of a common approach to health information for Canada. To this end, CIHI is responsible for providing accurate and timely information that is needed to establish sound health policies, manage the Canadian health system effectively and create public awareness of factors affecting good health.

The Institute's mandate is based upon collaborative planning with key stakeholder groups, including all provincial, territorial and federal governments, national health care agencies and service providers.

CIHI is governed by a Board of Directors whose 15 members strike a balance among the health stakeholders, sectors and regions of Canada.

The Institute's core functions are to:

- identify and promote national health indicators,
- coordinate and promote the development and maintenance of national health information standards,
- develop and manage health databases and registries,
- conduct analysis and special studies and participate in research,
- publish reports and disseminate health information, and
- coordinate and conduct education sessions and conferences.

1. Introduction

A. Purpose of Report

The purpose of this report is to provide a descriptive analysis of patients hospitalized with major trauma in participating facilities in Canada for the 2002–2003 fiscal year. The data source for this report is the National Trauma Registry Comprehensive Data Set (NTR CDS). Data elements collected in the NTR CDS are listed in Appendix A. Trauma cases were selected based on an Injury Severity Score (ISS) > 12 and the presence of specific External Cause of Injury codes (E Codes) that meet the definition of trauma (see Appendix B).

B. About the National Trauma Registry

i. Goals

The goals of the National Trauma Registry (NTR) are to:

- contribute to the reduction of injuries and related deaths in Canada by providing data which will allow the examination of national injury epidemiology,
- facilitate provincial and international injury comparisons,
- increase awareness of injury as a public health problem in Canada,
- assist injury prevention programs, and
- facilitate injury research.

Availability of this information will allow health care providers, planners and researchers to make informed decisions on the care and treatment of trauma patients, resource allocation, injury prevention programs and legislative changes.

The NTR Advisory Committee (NTRAC) is chaired by Dr. Mary vanWijngaarden-Stephens. NTRAC includes provincial representation from trauma care experts from across the country and has played a key role in the development of the NTR. The role of this group has included advising on the goals and objectives of the NTR, uses of the data, definitions, inclusion/exclusion criteria, data quality issues, report formats and development of promotional strategies.

ii. History

The establishment of the NTR, including the acquisition, analysis and dissemination of national injury data, is consistent with the mission, vision and corporate goals of CIHI. CIHI has worked toward the establishment of the NTR since the creation of the Ontario Trauma Registry in May 1992 at Hospital Medical Records Institute (HMRI), one of CIHI's founding organizations.

iii. Structure

The National Trauma Registry is comprised of 3 datasets:

1. The **Minimal Data Set** (**MDS)** contains demographic, diagnostic and procedural information about hospitalizations due to trauma from all acute care hospitals in Canada. Hospitalization data are obtained from the Hospital Morbidity Database at CIHI. The source of data for the Hospital Morbidity Database is CIHI's Discharge Abstract Database (DAD) for all provinces with the exception of Manitoba and Quebec. For these latter provinces, data are submitted from the hospitals to CIHI via the provincial Ministries of Health. Selection of trauma cases is based on specific External Cause of Injury Codes (E Codes) within the International Classification of Disease coding system, 9th revision, (ICD-9). A list of the E Codes that are included and excluded in the definition of trauma is located in Appendix B. Examples of E Codes that are *not* included in this definition are poisonings by drugs or gases, suicide and self-inflicted injury using poisonings, adverse effects of drugs and medicines, misadventures, and complications.

2. The **Death Data Set (DDS)** is under development at CIHI. The purpose of this data set will be to report nationally on all injury deaths regardless of hospitalization. The NTR DDS will be derived from a new national death set on all deaths and is being developed by CIHI, Statistics Canada, and the Provincial/Territorial Coroners/Medical Examiners.

3. The **Comprehensive Data Set (CDS)**, the data source for this report, is described in detail in the next chapter.

iv. Working Group

The NTR CDS Working Group provides advice and recommendations to the National Trauma Registry Advisory Committee (NTRAC) regarding issues relating to the NTR CDS dataset.

Provincial/Regional Representatives

Tanya Charyk-Stewart	London Health Sciences Centre, ON
Michael Hoppensack	Trauma Registry, Health Sciences Centre, MB
Josée Lalancette	Régie de l'assurance maladie du Québec, QC
Sharon Kasic	Trauma Registry, Vancouver General Hospital, BC
Eileen MacGibbon	Atlantic Health Sciences Corporation, NB
Heather Oakley	Atlantic Health Sciences Corporation, NB
Beth Sealy	QEII Health Sciences Centre, NS
John Tallon	QEII Health Sciences Centre, NS
Irma Brown	Trauma Registry, University of Alberta Hospital, AB
Shirley Roche	Health Care Corporation of St. John's, NL

CIHI Staff

Leila Abboud	Consultant, Clinical Registries, CIHI, ON
Cassandra Linton	Senior Analyst, Clinical Registries, CIHI, ON
Fang Yang	Analyst, Clinical Registries, CIHI, ON

2. Methodological Notes

A. Data Source

The NTR CDS consists of information on patients hospitalized with major trauma in participating hospitals in Canada. Many participating provinces use specialized trauma software (e.g. COLLECTOR from Digital Innovation and TRI-CODE from Tri-Analytics, Inc.) to collect the data on the injury cases. NTR CDS data are subsetted from participating provincial trauma registries and electronically submitted to CIHI, where they are loaded onto the NTR CDS database system.

B. Data Elements

Data elements collected in the NTR CDS are listed in Appendix A. Because other provincial registries may collect data differently from the NTR CDS, data elements have been mapped to a common definition when necessary. In some cases, complete data are not provided because they are not collected in a particular province or facility, or because of resource limitations on obtaining the information.

The number of data elements in the NTR CDS was expanded from 17 to 45 in 1999–2000 data, as approved by members of the NTR CDS Working Group and as part of CIHI's Roadmap initiative. Elements added include: sports/recreational injury code, work-related code, protective device codes, Revised Trauma Score (RTS), vital statistics upon arrival at the trauma hospital, and Abbreviated Injury Scale (AIS) codes by body region.

C. Data Quality

CIHI performs various validity checks on the data submitted by the provinces, such as checking that the diagnosis codes are valid and for completeness of the data. If data do not pass CIHI validations, a notification of errors is sent to data suppliers who are then asked to resubmit the corrected or complete data. Currently, outstanding errors in the data are retained in the data set within reason.

CIHI is also in the process of completing a comprehensive data quality study specific to the NTR. Once completed, a summary will be posted to the CIHI Web site.

D. Inclusion/Exclusion Criteria

i. Definition of Trauma Case

A trauma case is included in the NTR CDS and this report if it:

- has an Injury Severity Score (ISS) > 12, an international scoring system created to calculate the severity of injury;
- has an International Classification of Disease External Cause of Injury Code (E Code) that meets the definition of trauma (see Appendix B for more detail), and
- meets one of the following criteria:
  - admitted to a participating hospital, or
  - treated in the Emergency Department of a participating hospital (not admitted), or
  - died in the Emergency Department of a participating hospital after treatment is initiated (not admitted).

ii. Participating Facilities

The 2002–2003 NTR CDS is comprised of data from 39 facilities across seven provinces in Canada.

Table 1. Participating Facilities and Provinces, NTR CDS 2002–2003

Province	Name
British Columbia	Vancouver Island Health Authority South
	Lions Gate Hospital
	Royal Columbian Hospital
	Vancouver General Hospital
	Kelowna General Hospital
	Royal Inland Hospital
Alberta	Foothills Medical Centre
	Royal Alexandra Hospital
	Alberta Children's Hospital
	University of Alberta Hospital (includes Stollery Children's Hospital)
Manitoba	Health Sciences Centre
Ontario	Hamilton Health Sciences Corporation
	Hospital for Sick Children
	Hotel Dieu-Grace Hospital
	Kingston General Hospital
	London Health Sciences Centre
	Ottawa Hospital
	St. Michael's Hospital
	St. Joseph's Health Centre
	Sunnybrook and Women's College Health Science Centre
	Thunder Bay Regional Hospital
	Children's Hospital of Eastern Ontario
Quebec	Hôpital Charles-Lemoyne
	Hôpital de Montréal pour enfants
	Hôpital du Sacré-Cœur de Montréal
	Hôpital Général de Montréal

Province	Name
Quebec (cont'd)	Hôpital Ste-Justine
	Pavillon Enfant-Jésus CHA
New Brunswick	Atlantic Health Sciences Corporation
Nova Scotia	IWK Health Centre
	Queen Elizabeth II Health Sciences Centre
	Aberdeen Hospital
	Cape Breton Health Care Complex
	Colchester Regional Hospital
	Health Services Association of the South Shore
	St. Martha's Regional Hospital
	Valley Regional Hospital
	Yarmouth Regional Hospital
	Cumberland Regional Health Care Centre

In previous years, the number of participating provincial/regional trauma registries and facilities has differed slightly in the NTR CDS. Therefore, trends over time should be interpreted with caution. Table 2 lists participating provincial/regional trauma registries by fiscal year of data.

Table 2. Participating Provinces, NTR CDS 1996–1997 through 2002–2003

Year	Participating Provinces
1996–1997	BC, AB, ON, QC, NS, NL
1997–1998	BC, AB, ON, QC, NS, NL
1998–1999	BC, AB, ON, NS, NL
1999–2000	BC, AB, MB, ON, NS
2000–2001	BC, AB, MB, ON, QC, NB, NS
2001–2002	BC, AB, MB, ON, QC, NB, NS
2002–2003	BC, AB, MB, ON, QC, NB, NS

E. Reporting Guidelines

- This report provides data from 39 participating facilities across seven provinces, submitted and uploaded to the NTR CDS database as of November 10, 2004.
- Cases are included in this report based on fiscal year of discharge date from April 1, 2002–March 31, 2003.
- Participating provinces in this year's report are British Columbia, Alberta, Manitoba (one facility), Ontario, Quebec, New Brunswick (one facility), and Nova Scotia.
- Historical trends should be interpreted with caution as participating provinces vary each year. Differences in numbers and percentages may be largely due to changes in reporting.
- Beginning in 2000–2001, External Causes of Injury Codes (E Codes) were collected within British Columbia's hospital-based trauma registries. Therefore, trauma cases from British Columbia are now *included* in E Code tables and cause of injury analyses.
- Cause of injury reports are based on the first documented E Code only, which is the primary cause of injury.
- Reporting of causes and nature of injury diagnoses is based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM).
- Diagnostic information from British Columbia, Nova Scotia (both beginning 2001–2002), and Ontario and some of Alberta (both beginning 2002–2003) were received coded to the International Classification of Diseases, 10th Revision, Canada (ICD-10-CA). ICD-10-CA coded data were converted to ICD-9-CM for reporting purposes. As a result there may be noticeable changes, relative to previous years, at the finest level of specificity in reporting causes of injury (E Codes). Further, due to conversion issues, Table 7 from previous reports (*Traffic, Non-Traffic, and Other Road Vehicle Incidents*) was not included in the current report.
- Discharges rather than individuals are reported. Therefore, the same patient may be included more than once in the NTR CDS.
- Deaths in this report refer to major injury cases who died in the Emergency Department or in-hospital after admission. Deaths occurring at the scene or upon arrival at the hospital (before treatment is initiated) are not included, as this data is not available in the NTR CDS.
- In some cases, complete data could not be provided because they are not collected in a particular province or facility, or because of resource limitations on obtaining the information.
- Cases from Quebec may be under reported due to a minimum length of stay requirement in the Quebec Trauma Registry that differs from that used in the NTR CDS.
- For Quebec cases over age 85, only the median age of the age group was provided in lieu of the exact age.
- Cases from British Columbia did not have the injury diagnosis (N code) available.
- Percentages may not add to 100% due to rounding.

3. Overview

A. 2002–2003 Highlights

Highlight statistics from the 2002–2003 NTR CDS include:

- 9,892 major injury cases included with an Injury Severity Score (ISS) > 12;
- Mean Injury Severity Score (ISS) was 24 (median = 22);
- Mean Length of Stay (LOS) was 17 days (median = 9);
- 1,369 deaths, including 998 in-hospital deaths and 371 deaths in the Emergency Department (DIEs);
- 7,108 (72%) were males;
- 3,998 (50%) were direct admissions to the lead trauma hospital;
- Mean age for all cases was 43 years (median = 41);
- 4,097 (41%) cases were less than 35 years of age;
- 3,399 (35%) patients had ventilator days documented; the mean number of ventilator days was 7 days (median = 3),
- 980 (13%) had a positive Blood Alcohol Concentration (BAC≥17.0 mmol/L) documented,
- Most common type of injury was a head injury (65%), followed by orthopaedic (64%) and superficial (59%) injuries,
- 9,286 (94%) cases had a blunt injury, 414 (4%) penetrating, and 190 (2%) burns,
- 677 (7%) were documented as work-related,
- 988 (12%) injuries occurred while engaged in a sports and recreation-related activity, and
- 48% (n = 4,704) of injuries occurred on the street or highway, 20% (n = 2,013) occurred at home, 6% (n = 567) occurred in a recreational or sport setting, 4% (n = 369) occurred in an industrial setting, and 22% (n = 2,220) occurred in other settings. There were 19 cases missing place of occurrence information.

Annual highlight statistics from 1998–1999 to 2002–2003 are shown in Appendix E, Table 1. An analysis of trends over time is not presented due to the variation in provincial/regional trauma registry participation each year.

B. Demographic Analysis

Figure 1 shows major injury hospitalizations by age group. Cases 35 to 64 years of age accounted for the greatest proportion of cases (37%, n = 3,687), followed by the 20 to 34 year age group (24%, n = 2,324) and those aged 65 years and over (21%, n = 2,105). Cases under 20 years of age accounted for 18% (n = 1,773) of all injury hospitalizations.

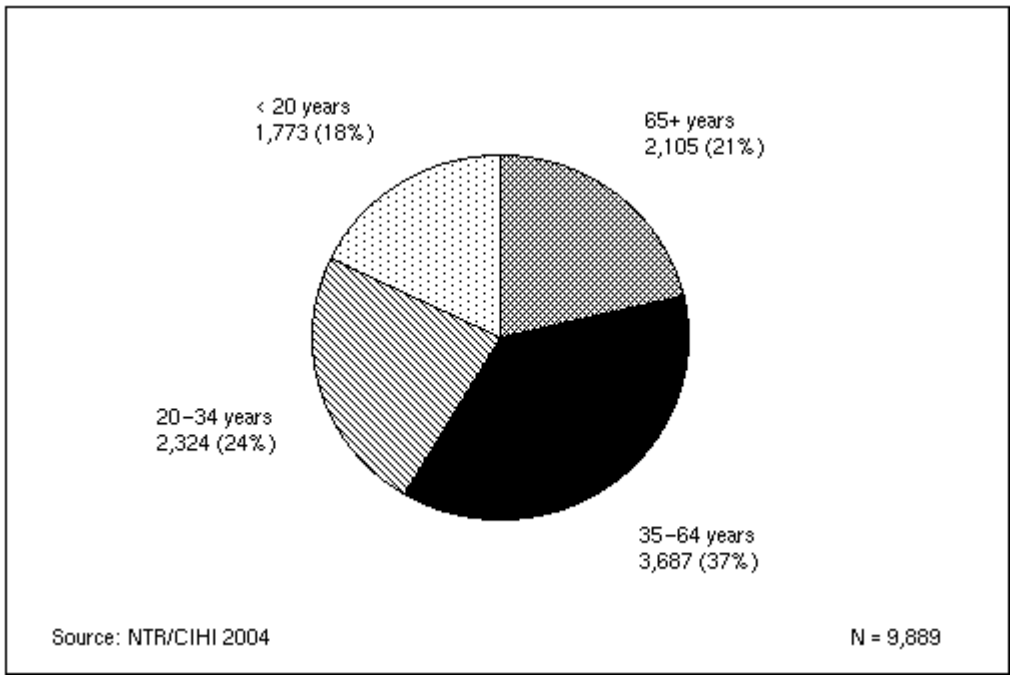

Figure 1. Major Injury Cases by Age Group, 2002–2003*

*Note: 3 cases with unknown age

Figure 2 shows that when analyzed by sex and single year of age, the highest number of cases were among females and males in their late teenage years. Males comprised 72% (n = 7,108) of all major injury cases.

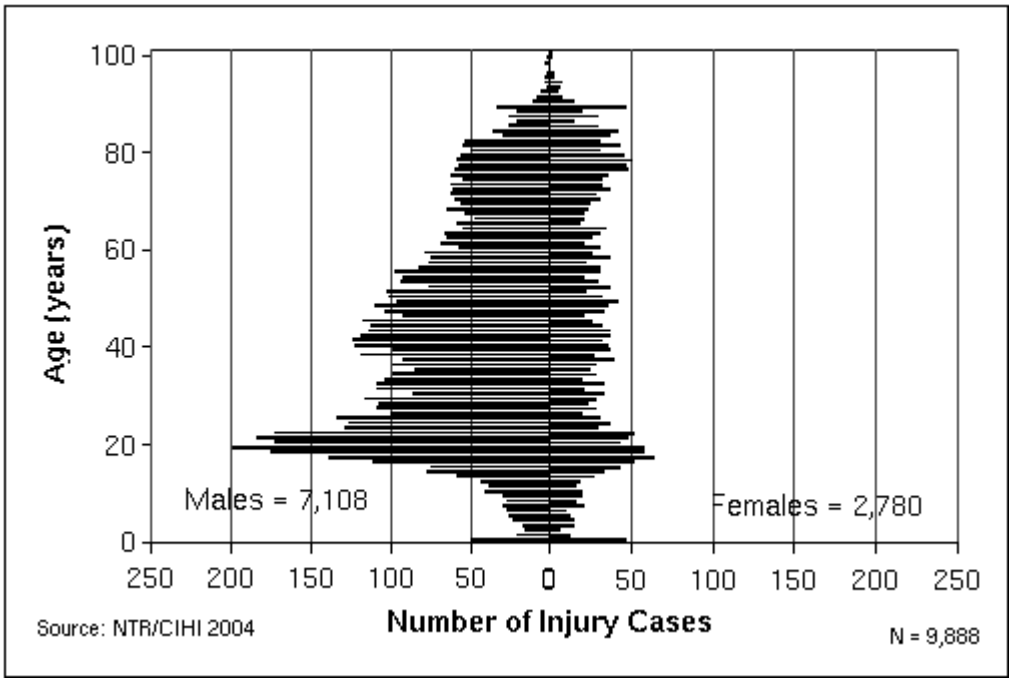

Figure 2. Major Injuries by Single Year of Age and Sex—All Cases, 2002–2003*

* Note: the total includes 3 cases with unknown age
Note: the total excludes 4 cases with unknown sex

4. Causes of Major Injury

A. Overall Causes

Figure 3 shows the causes of major injury for the 9,892 cases in the 2002–2003 NTR CDS. The leading *specific* causes of major injury were motor vehicle collisions, which were responsible for just under one-half of all cases (47%, n = 4,682), followed by unintentional falls (29%, n = 2,898). Homicide and injury purposely inflicted (excluding poisoning) (8%, n = 810) was the third leading cause, followed by the "Other Incidents" category (6%, n = 551). Leading causes in the latter category were being unintentionally struck by an object or person (n = 180), being unintentionally struck by a falling object (n = 142), and incidents caused by machinery (n = 52). More details on these and other causes of injury are shown in Appendix E, Table 5.

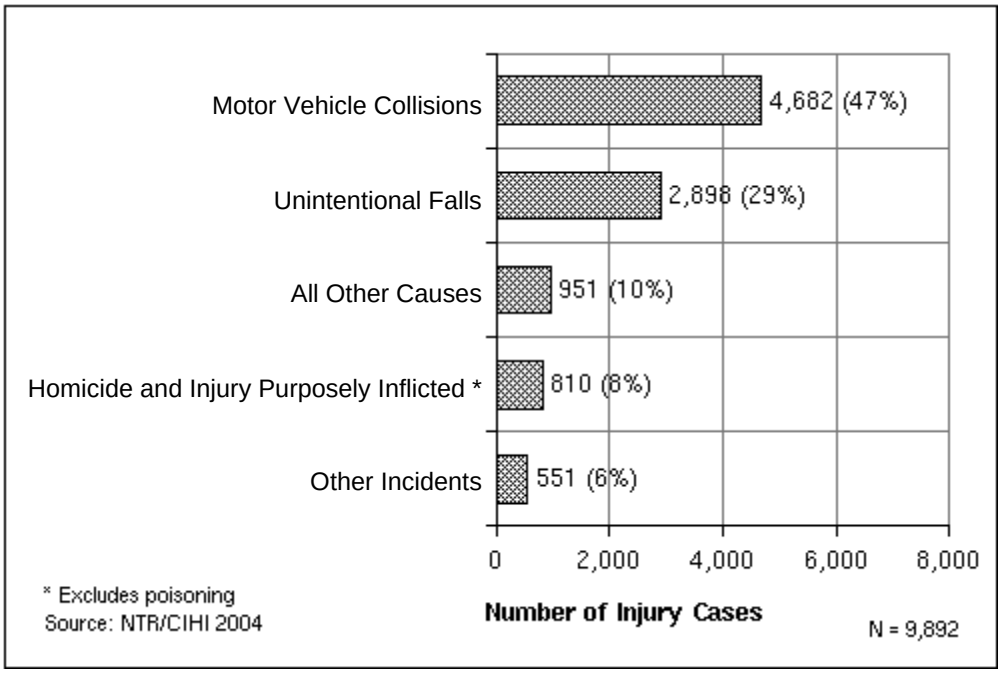

Figure 3. Causes of Major Injury—All Cases, 2002–2003

For the leading causes of major injury, the mean and median age statistics were as follows (Appendix E, Table 4):

- Motor vehicle collisions: mean = 38 years (median = 35),
- Unintentional falls: mean = 57 years (median = 61),
- Homicide or injury purposely inflicted by another person: mean = 31 years (median = 29), and
- Other incidents category: mean = 37 years (median = 37).

B. Causes by Age Group

i. Cases Under 20 Years of Age

Figure 4 shows the causes of major injury for the 2002–2003 cases under the age of 20 years (n = 1,773). The leading causes of major injury were motor vehicle collisions *excluding* those involving cyclists (53%, n = 936), followed by unintentional falls (16%, n = 292). E codes in the "Other Incidents" category comprised an additional 8% (n = 149) of the cases, and homicide and injury purposely inflicted by another person (excluding poisoning) comprised 9% (n = 152) of the injury cases. The leading cause in the "Other Incidents" category was being unintentionally struck by an object or person (n = 83). Cycling incidents were responsible for 7% (n = 127) of the injury cases under the age of 20 years. Cyclists were reported separately from motor vehicle collisions in this age group only.

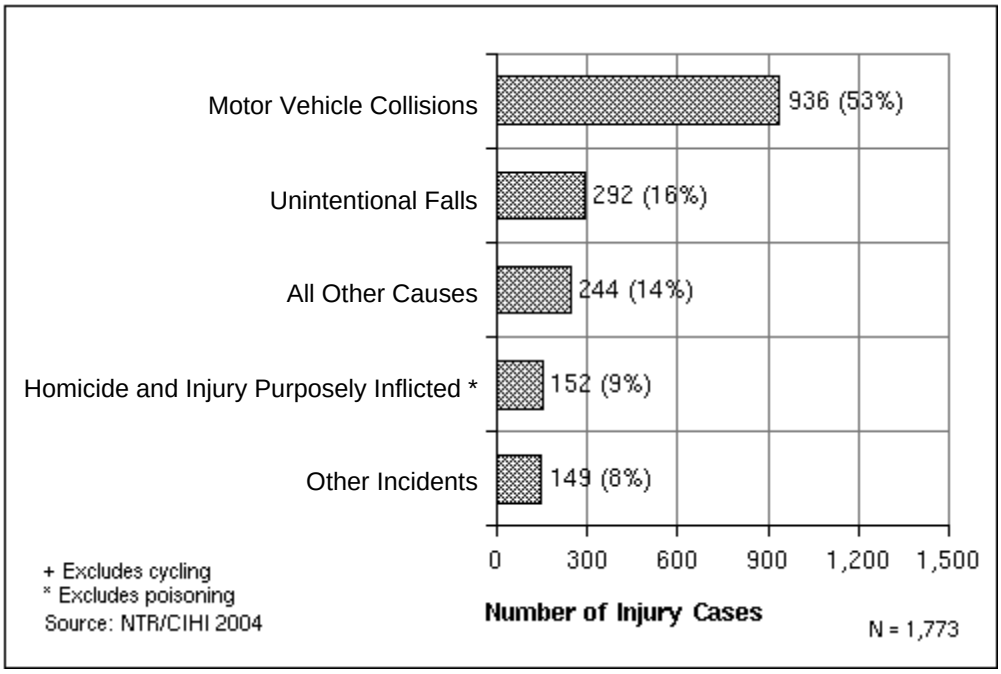

Figure 4. Causes of Major Injury—Cases Under 20 Years of Age, 2002–2003

ii. Cases Aged 20 to 34 Years

Figure 5 shows the causes of major injury for cases aged 20 to 34 years (n = 2,324). The leading causes of major injury were motor vehicle collisions *including* those involving cyclists (58%, n = 1,337). The next leading causes were homicide and injury purposely inflicted by another person (excluding poisoning) (15%, n = 354) and unintentional falls (12%, n = 275). The fourth leading causes of major injury were E codes grouped under the "Other Incidents" category (5%, n = 114). The top causes in this category were being struck unintentionally by a falling object (n = 32), being struck unintentionally by an object or person (n = 29), and being caught unintentionally in or between objects (n = 12).

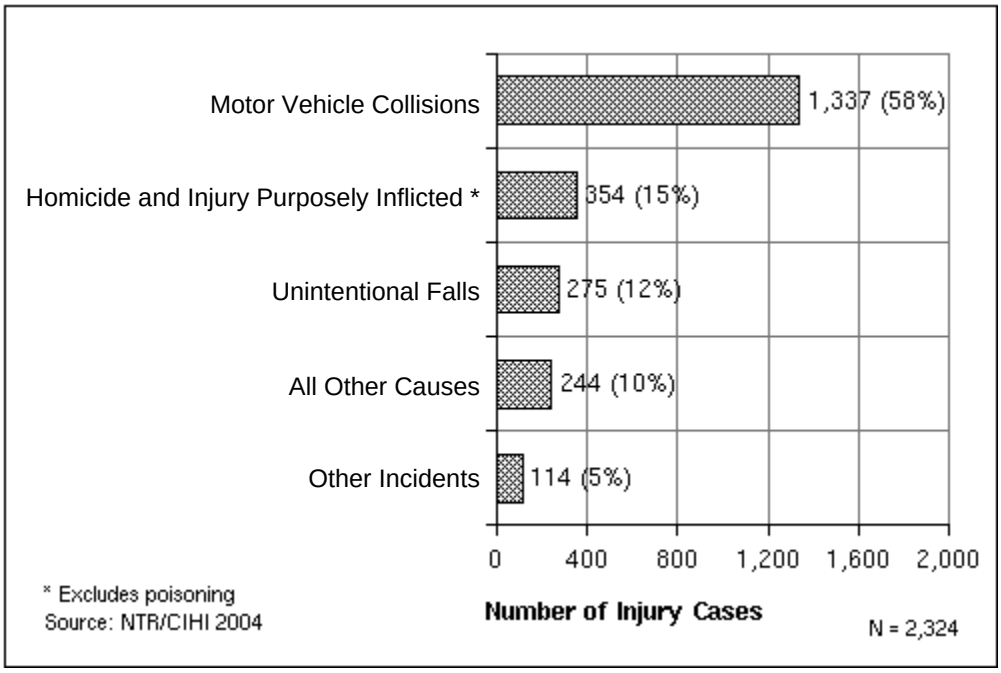

Figure 5. Causes of Major Injury—Cases Aged 20 to 34 Years, 2002–2003

iii. Cases Aged 35 to 64 Years

Figure 6 shows the causes of major injury for cases between 35 and 64 years of age (n = 3,687). The leading causes of major injury were motor vehicle collisions *including* those involving cyclists (47%, n = 1,721), followed by unintentional falls (28%, n = 1,018). Homicide and injury purposely inflicted (excluding poisoning) was the next leading *specific* cause (8%, n = 281), followed by E codes grouped under the "Other Incidents" category (6%, n = 228). Top causes of injury in the latter category were being struck unintentionally by a falling object (n = 73), followed by being struck unintentionally by an object or person (n = 49), and by incidents caused machinery (n = 32).

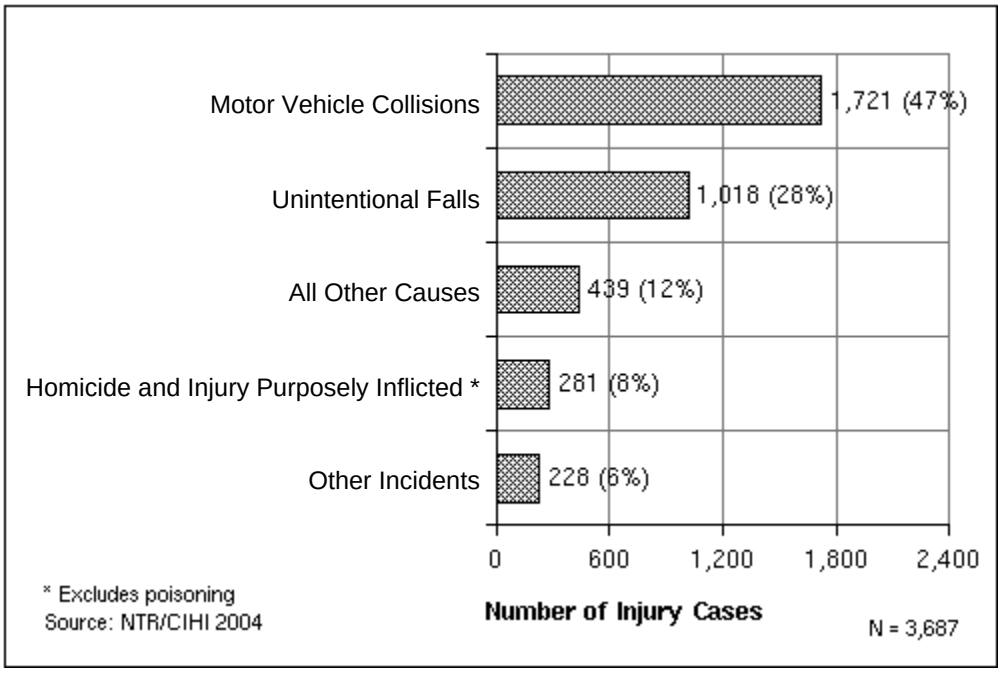

Figure 6. Causes of Major Injury—Cases Aged 35 to 64 Years, 2002–2003

iv. Cases Aged 65 Years and Over

Figure 7 shows the causes of major injury for cases aged 65 years and over (n = 2,105). Unintentional falls were responsible for the majority of cases (62%, n = 1,313), followed by motor vehicle collisions *including* those involving cyclists (30%, n = 623). Together, these two causes of injury were responsible for over 90% of the cases. The "Other Incidents" category was the third leading specific cause (3%, n = 60), with the top cause being struck unintentionally by an object or person (n = 19), followed by being struck unintentionally by a falling object (n = 8).

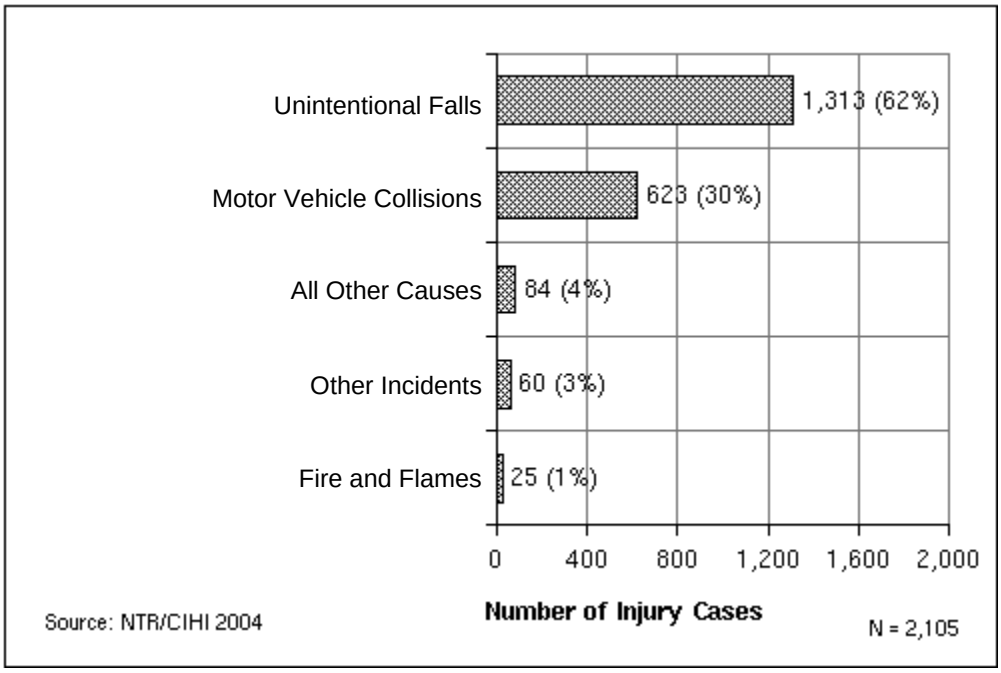

Figure 7. Causes of Major Injury—Cases Aged 65 Years and Over, 2002–2003

C. Motor Vehicle Collisions

i. Motor Vehicle Traffic and Non-Traffic Incidents

Highlight statistics from the motor vehicle traffic and non-traffic incident injury cases (Appendix E, Table 4) include:

- 47% of all cases (n = 4,682),
- 42% of deaths (n = 570),
- 68% (n = 3,166) were males,
- Mean age was 38 years (median = 35),
- Mean LOS was 18 days (median = 10),
- Mean ISS was 26 (median = 24), and
- Almost 100% had a blunt injury as the most serious injury.

Figure 8 shows the motor vehicle traffic and non-traffic injury cases by age group. More than one-third of the cases were between the ages of 35 and 64 years of age (37%, n = 1,721).

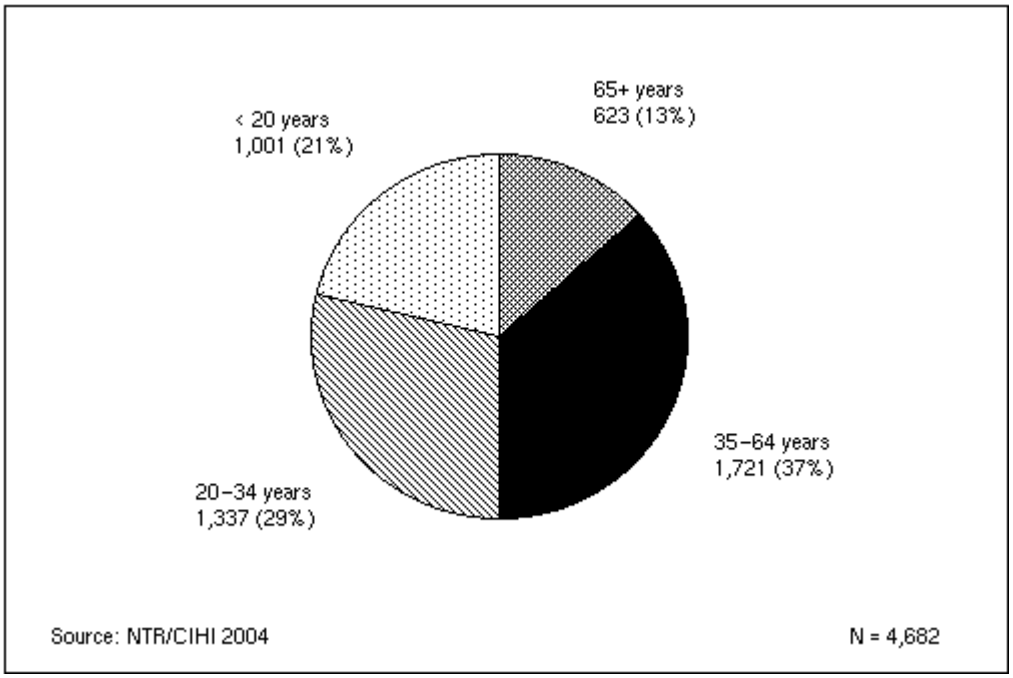

Figure 8. Motor Vehicle Traffic and Non-Traffic Incidents by Age Group, 2002–2003

Figure 9 shows that the highest numbers of motor vehicle traffic and non-traffic injury cases by single year of age and sex were among males and females in their late teenage years and early 20s.

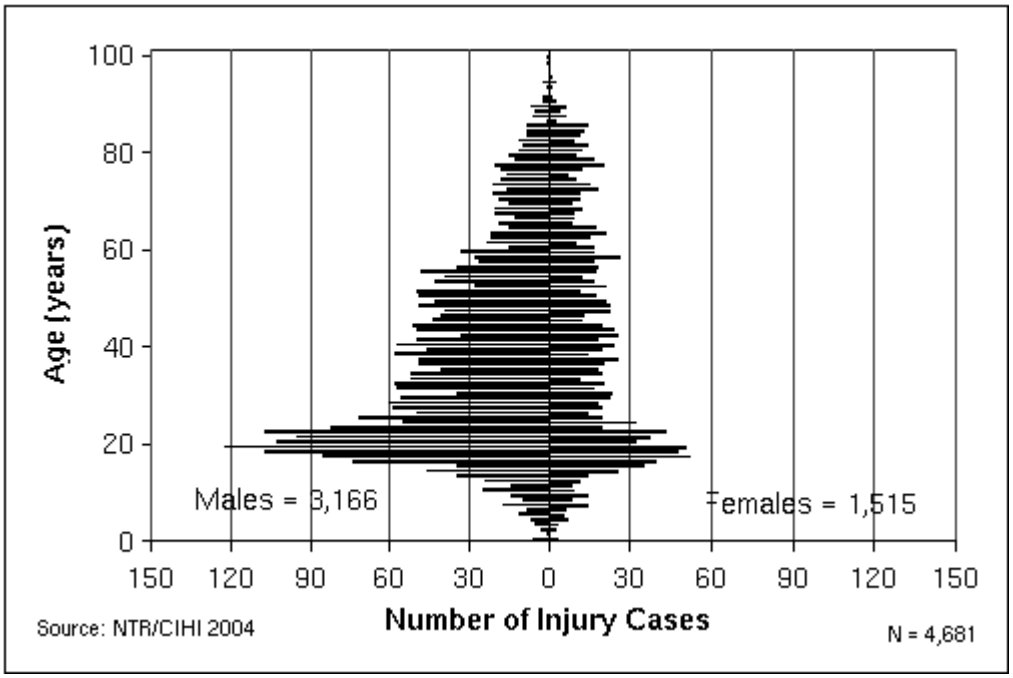

Figure 9. Motor Vehicle Traffic and Non-Traffic Incidents by Single Year of Age and Sex, 2002–2003*

*Note: 1 case with unknown sex

Highlight statistics from *deaths* among motor vehicle collision injury cases in the 2002–2003 NTR CDS (Appendix E, Table 4) include:

- 570 deaths (representing 42% of all injury deaths). These represented cases who died in the Emergency Department or who were admitted and later died in hospital;
- Mean age was 46 years (median = 43),
- Mean LOS was 10 days (median = 2),
- Mean ISS was 38 (median = 36), and
- Nearly all (99%) had a blunt injury as the most serious injury.

ii. Injured Person in Transport Incidents

Figure 10 shows the 4,682 motor vehicle traffic and non-traffic injury cases in the 2002–2003 NTR CDS by injured person. The ICD coding system identifies the injured person for transport incidents (E800–E845) through the use of a required fourth digit. Over half of the injured persons in motor vehicle collision injury cases were drivers (54%, n = 2,549), which included 420 motorcycle drivers. Passengers comprised nearly one-quarter (22%, n = 1,040) of the injured cases, of which 25 were motorcycle passengers. Sixteen percent (n = 760) were pedestrians.

Overall, 10% (n = 445) of the motor vehicle collision injury cases were motorcycle drivers or passengers. Four percent (n = 170) were pedal cyclists.

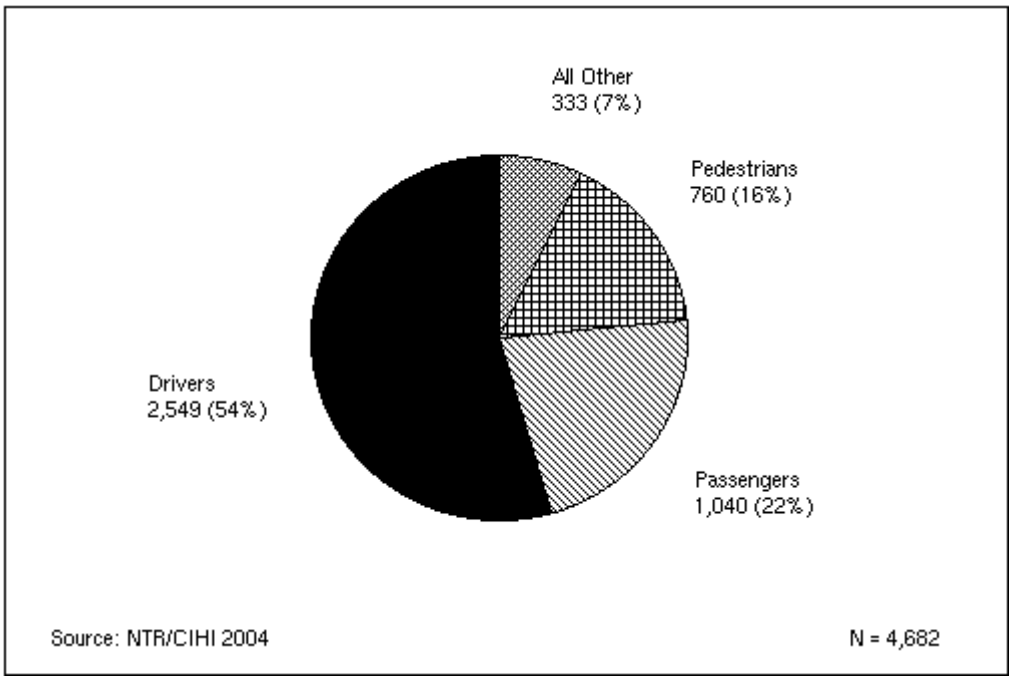

Figure 10. Motor Vehicle Collisions by Injured Person—All Cases, 2002–2003

Figure 11 shows the 570 *deaths* by injured person among the motor vehicle collision injury cases in the 2002–2003 NTR CDS. Nearly one-half were drivers (41%, n = 236), which included 48 motorcycle drivers. Twenty-eight percent (n = 159) were pedestrians and 22% (n = 125) were passengers.

Nine percent (n = 49) were motorcycle drivers or passengers, and 4% (n = 22) were pedal cyclists.

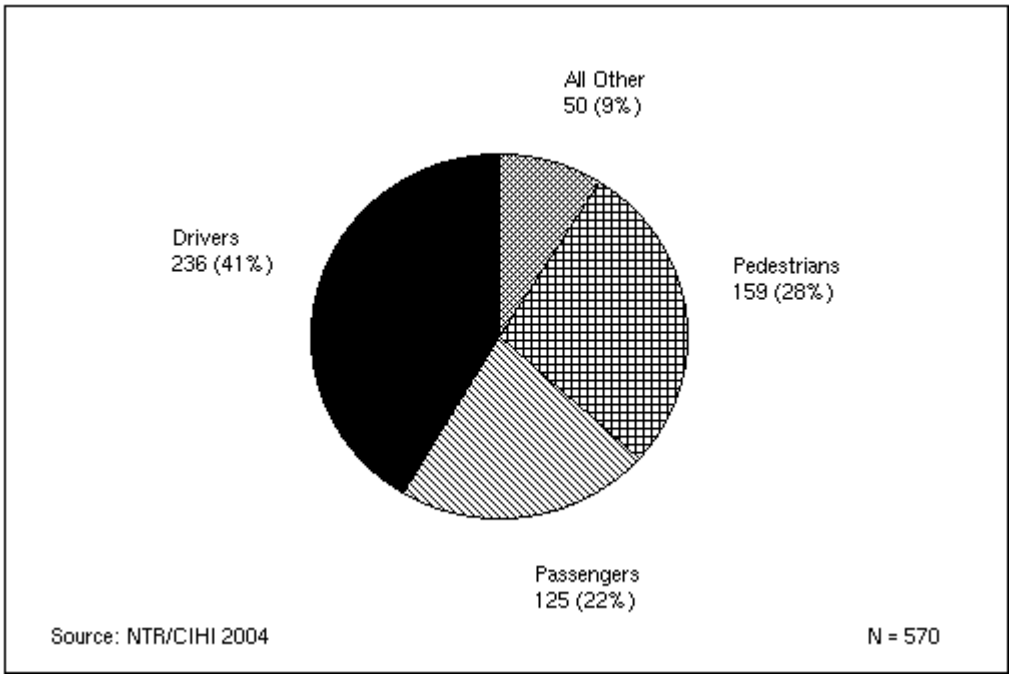

Figure 11. Motor Vehicle Collisions by Injured Person—Deaths, 2002–2003

D. Unintentional Falls

Highlight statistics from unintentional fall injury cases (Appendix E, Table 4) include:

- 2,898 cases (representing 29% of all cases),
- 433 deaths (representing 32% of all injury deaths),
- 70% (n = 2,033) were males,
- Mean age was 57 years (median = 61),
- Mean LOS was 16 days (median = 8),
- Mean ISS was 22 (median = 20), and
- Almost 100% had a blunt injury as the most serious injury.

Figure 12 shows the unintentional fall injury cases by age group. Nearly one-half (45%, n = 1,313) of the unintentional fall injury cases were aged 65 years and over. More than one-third (35%, n = 1,018) were aged 35 to 64 years.

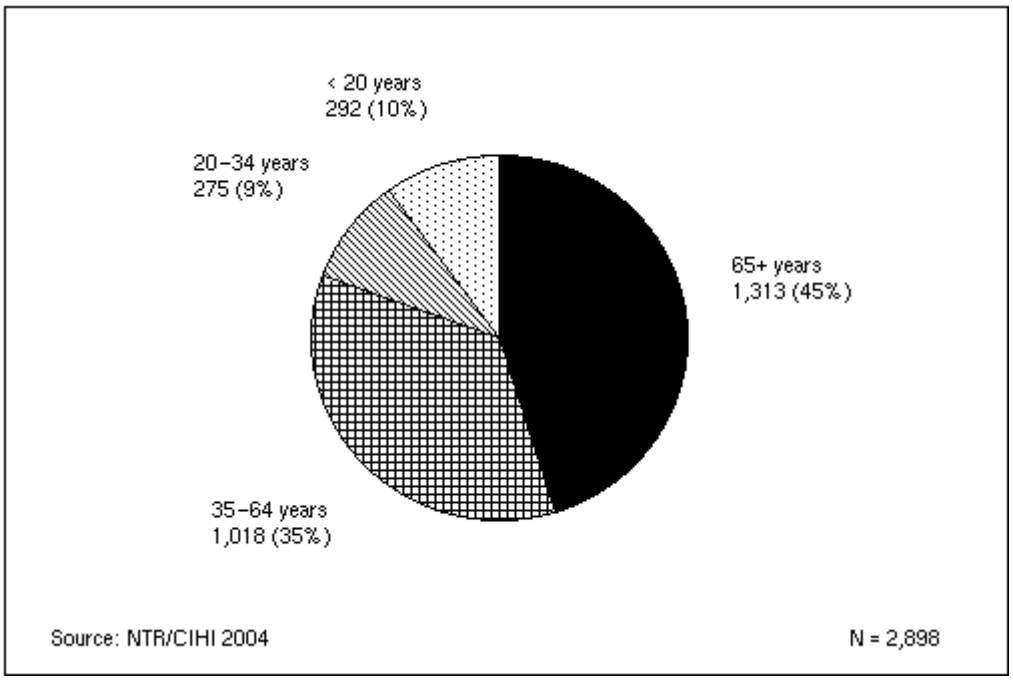

Figure 12. Unintentional Falls by Age Group, 2002–2003

Figure 13 shows that males comprised 70% (n = 2,033) of all unintentional fall cases resulting in a major injury. When analyzed by single year of age and sex, the most prominent peaks were observed among males in their early 80s and females in their mid to late 80s.

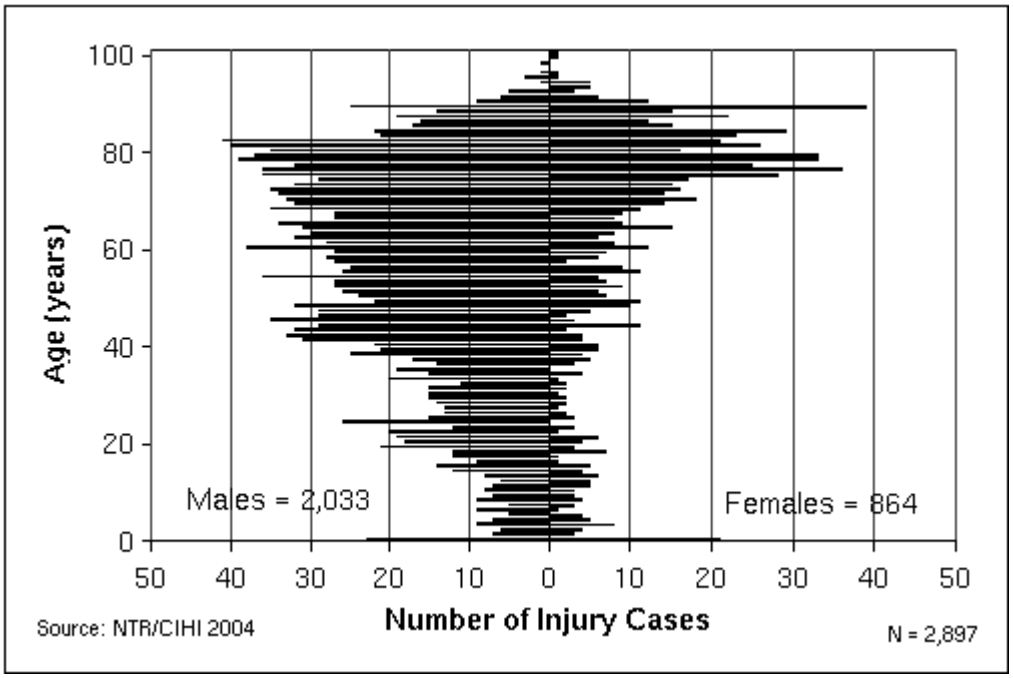

Figure 13. Unintentional Falls by Single Year of Age and Sex, 2002–2003*

*Note: 1 case with unknown sex

Figure 14 shows the types of falls experienced by major injury cases. The most common *specified* types of falls were falls on or from stairs/steps (20%, n = 573) and falls on the same level from slipping, tripping, or stumbling (14%, n = 406). The next most common types specified were falls from/out of a building or other structure (11%, n = 316) and falls from one level to another (9%, n = 273).

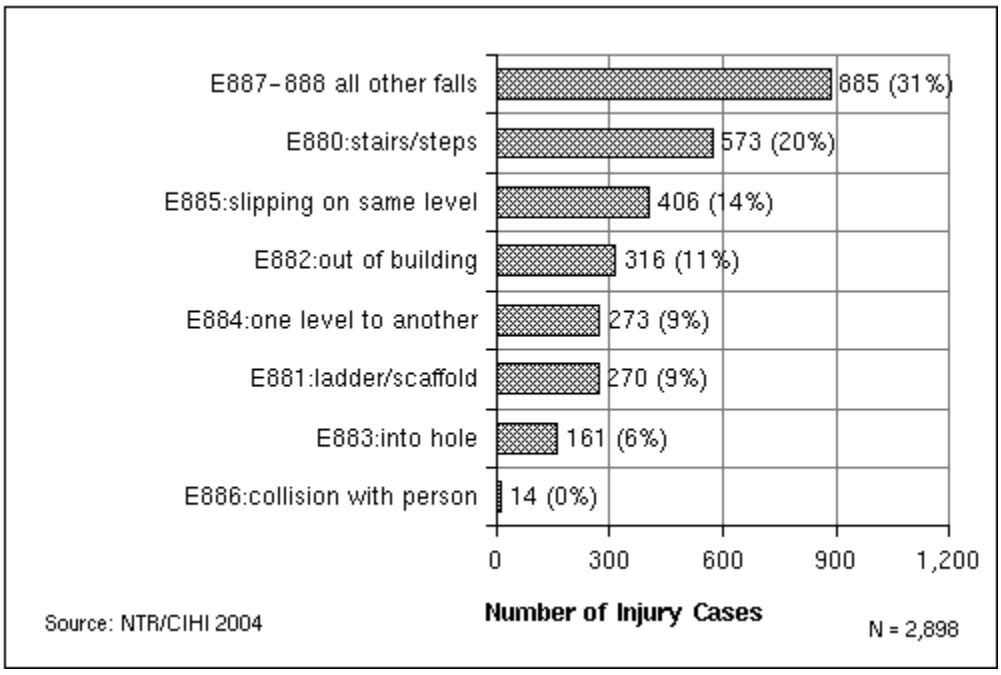

Figure 14. Unintentional Falls by External Causes of Injury (E Code), 2002–2003

The most common *specified* types of falls by age group were (Appendix E, Table 7):

- Age < 20 years—Fall from one level to another (24%, n = 70), (16%, n = 11 of these were falls from playground equipments),
- Age 20–34 years—Fall from/out of building or other structure (27%, n = 75),
- Age 35–64 years—Fall on or from stairs/steps (20%, n = 204), and
- Age 65 years and over—Fall on or from stairs/steps (24%, n = 312).

Highlight statistics for *deaths* among unintentional fall injury cases in the 2002–2003 NTR CDS (Appendix E, Table 4) include:

- 433 deaths (representing 32% of all injury deaths),
- Mean age was 69 years (median = 76),
- Mean LOS was 12 days (median = 5),
- Mean ISS was 26 (median = 25), and
- All had a blunt injury as the most serious injury.

E. Intentional Injuries

i. Homicide and Injury Purposely Inflicted by Another Person (Excluding Poisoning)

Highlight statistics from the injury cases caused by homicide and injury purposely inflicted by another person (Appendix E, Table 4) include:

- 810 cases (representing 8% of all cases),
- 116 deaths (representing 8% of all injury deaths and 11% of all intentional injuries),
- 90% (n = 725) were males,
- Mean age was 31 years (median = 29),
- Mean LOS was 13 days (median = 6),
- Mean ISS was 22 (median = 19), and
- 66% (n = 534) had a blunt injury, 34% (n = 272) had a penetrating injury, and less than 1% (n = 4) had a burn as their most serious injury.

Figure 15 shows major injury cases caused by homicide and injury purposely inflicted by another person by age group. Forty-four percent of the cases (n = 354) were persons aged 20 to 34 years and 35% (n = 281) were persons aged 35 to 64 years.

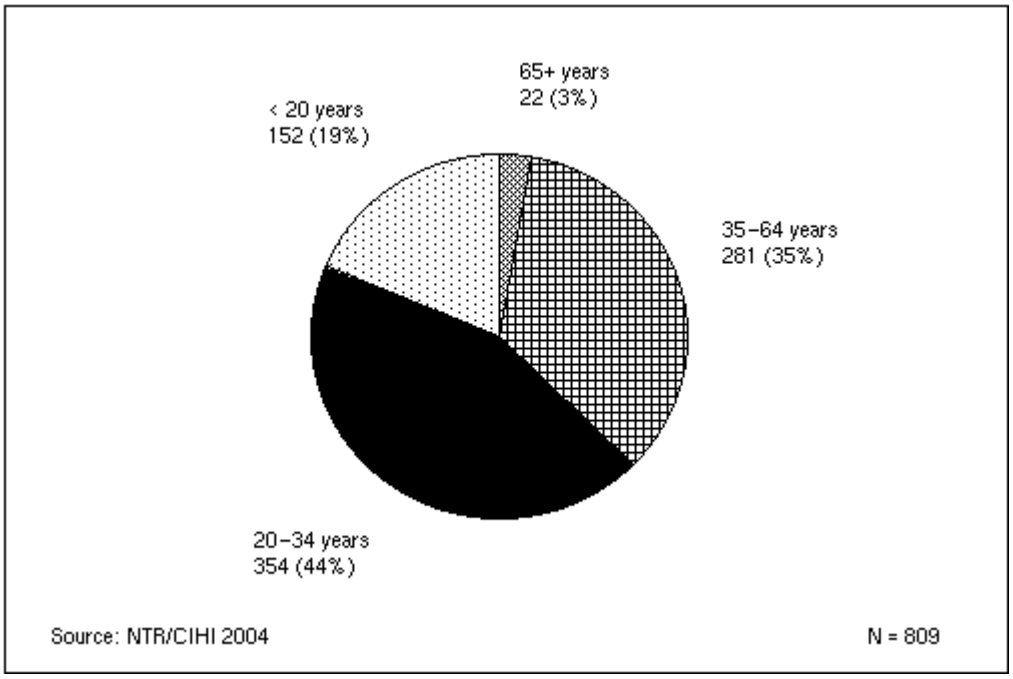

Figure 15. Homicide and Injury Purposely Inflicted by Another Person (excluding poisoning) by Age Group, 2002–2003*

*Note: 1 case with unknown age

Important note: *The National Trauma Registry definition of homicide and injury purposely inflicted by another person excludes poisoning cases (see Appendix B for Trauma Definition E Code Inclusions and Exclusions).*

As shown in Figure 16, the most common *specified* means of homicide and injury purposely inflicted by another person (excluding poisoning) were fights (28%, n = 224) and stabbing (25%, n = 202).

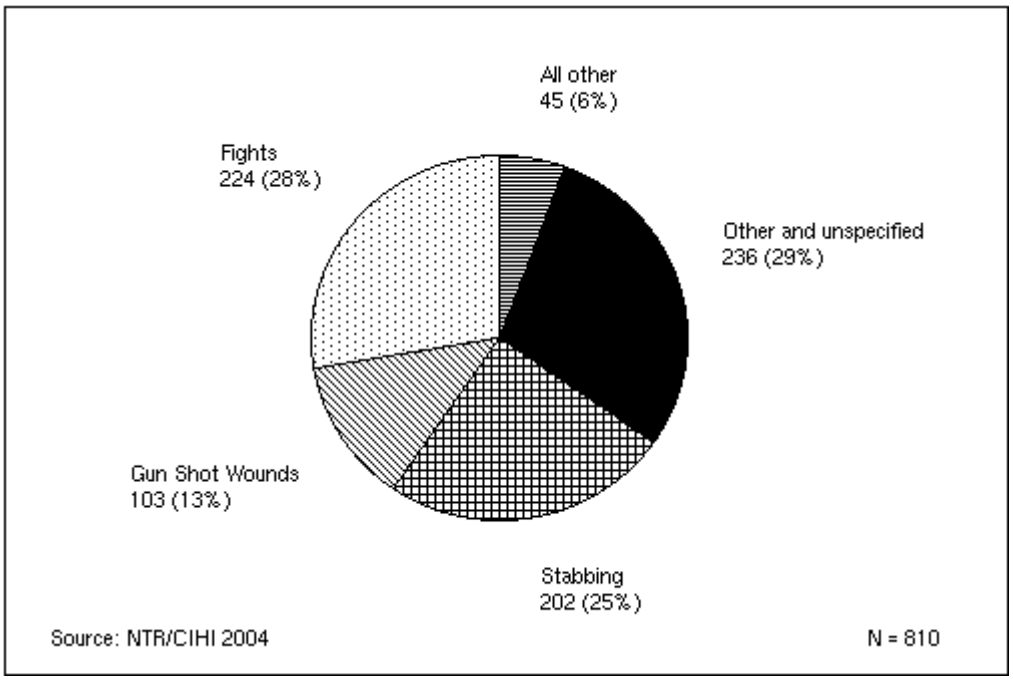

Figure 16. Means of Homicide and Injury Purposely Inflicted by Another Person (excluding poisoning), 2002–2003

Highlight statistics from *deaths* due to homicide and injury purposely inflicted by another person (excluding poisoning) in the 2002–2003 NTR CDS (Appendix E, Table 4) include:

- 116 deaths (representing 8% of all injury deaths);
- Mean age was 33 years (median = 30),
- Mean LOS was 12 days (median = 1),
- Mean ISS was 29 (median = 26), and
- 50% (n = 58) had a blunt injury and 50% (n = 58) had a penetrating injury as the most serious injury.

ii. Suicide and Self-inflicted Injury (Excluding Poisoning)

Highlight statistics from suicide and self-inflicted injury cases (Appendix E, Table 4) include:

- 288 cases (representing 3% of all cases),
- 110 deaths (representing 8% of all injury deaths),
- 72% (n = 207) were males,
- Mean age was 38 years (median = 38),
- Mean LOS was 24 days (median = 13),
- Mean ISS was 27 (median = 25), and
- 68% (n = 196) had a blunt injury, 30% (n = 86) had a penetrating injury, and 2% (n = 6) had a burn as the most serious injury.

Figure 17 shows suicide and self-inflicted injury (excluding poisoning) cases by age group. Persons aged 35 to 64 years accounted for 48% (n = 139) of cases, followed by persons aged 20 to 34 years (34%, n = 97).

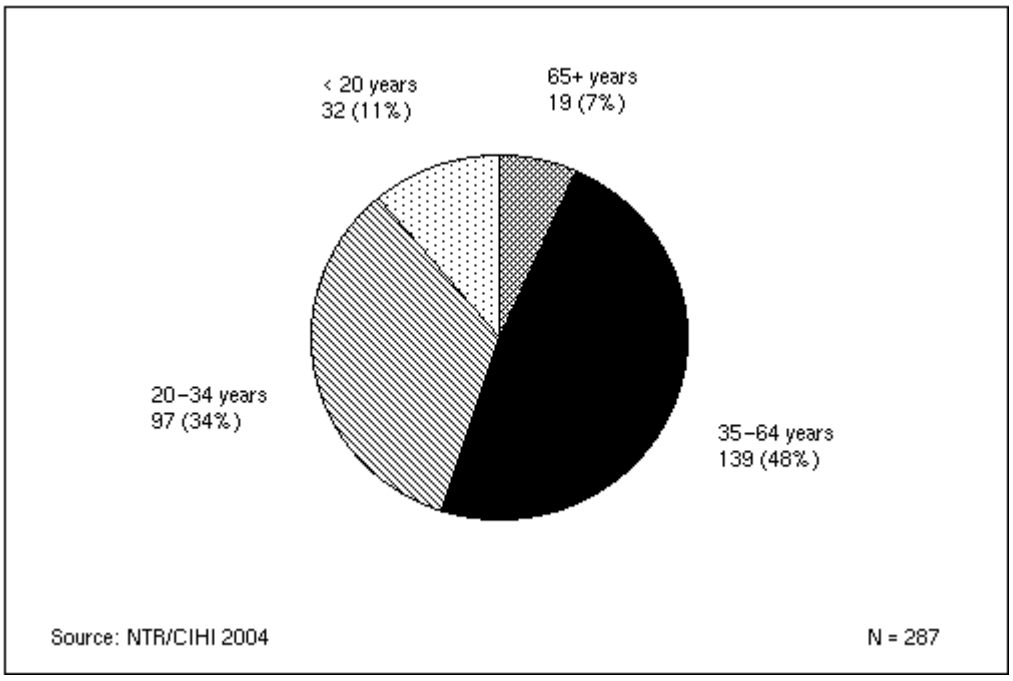

Figure 17. Suicide and Self-Inflicted Injury (excluding poisoning) by Age Group, 2002–2003*

*Note: 1 case with unknown age

Important note: *The National Trauma Registry definition of suicide and self-inflicted injury excludes poisoning cases (see Appendix B for Trauma Definition E Code Inclusions and Exclusions).*

As seen in Figure 18, the most common *specified* means of self-inflicted injury (excluding poisoning) were jumping from a high place (31%, n = 88) followed by gun shot wounds (20%, n = 57).

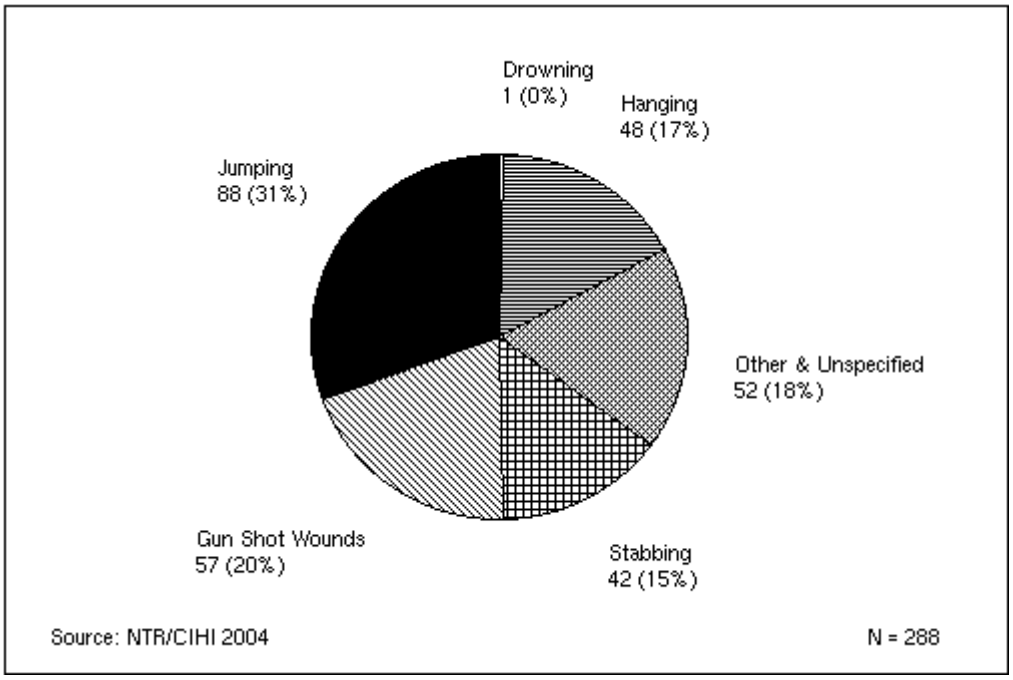

Figure 18. Means of Suicide and Self-Inflicted Injury (excluding poisoning), 2002–2003

Highlight statistics from *deaths* due to suicide and self-inflicted injury cases (excluding poisoning) in the 2002–2003 NTR CDS (Appendix E, Table 4) include:

- 110 deaths (representing 8% of all injury deaths),
- Mean age was 40 years (median = 39),
- Mean LOS was 4 days (median = 1),
- Mean ISS was 31 (median = 26), and
- 65% (n = 72) had a blunt injury and 32% (n = 35) had a penetrating injury.

5. Context of Major Injury

A. Place of Injury

All but 19 of the 9,892 injury cases were documented with a place of injury (Appendix E, Table 10). Cases lacking place of injury information were excluded from percentage calculations:

- 48% (n = 4,704) occurred on a street or highway,
- 20% (n = 2,013) at home,
- 6% (n = 567) in a recreational or sports setting,
- 4% (n = 369) in an industrial setting, and
- 22% (n = 2,220) in a setting other than those listed above.

B. Work-Related Injury

Seven percent (n = 677) of the injury cases were reported to be work-related. The proportion of work related injury cases by participating province ranged from 5% in Ontario to 10% in Alberta (Appendix E, Table 10).

C. Blood Alcohol Concentration

Thirteen percent (n = 980) of injury cases were reported to have a positive blood alcohol concentration level (BAC), which is a BAC ≥ 17.0 mmol/L or 80 mg/100mL. The proportion of positive BAC injury cases by participating province ranged from 11% in British Columbia to 16% in Alberta (Appendix E, Table 10). BAC information was provided for Quebec, but lacked the specificity required to determine a *positive* BAC.

D. Sports and Recreational Injury

Twelve percent (n = 988) of injury cases were reported to have been involved in a sports or recreational-related activity at the time of injury. The proportion of sports and recreational injury cases in each participating province ranged from 11% in each of Ontario and Manitoba to 18% in New Brunswick (Appendix E, Table 10). Sports and recreation-related injury information was not available from Quebec and therefore was excluded from overall percentage calculations.

Table 3 shows summary statistics for the most commonly reported sports and recreational activities among the cases with major injury. The three leading activities were cycling (24%), all-terrain vehicles (15%), and snowmobiling (10%). Across the most frequently reported activities, males comprised the majority of cases. The mean age was lowest for snowboarding and highest for horseback riding. Mean ISS ranged between 20 and 25 for these leading activities. Mean LOS was highest for snowmobiling and horseback riding and lowest for downhill skiing and snowboarding. Among all sports and recreational-related major injury cases, 6% died either in-hospital or in the emergency department.

Table 3. Summary Statistics for Major Sports and Recreational Injuries, by Type of Activity, 2002–2003

Activity	Cases N (%*)	Mean Age (years)	Mean ISS	Mean LOS (days)	Males N (%**)	Deaths¥ N (%**)
Cycling	234 (24%)	33	23	14	196 (84%)	18 (8%)
All-terrain vehicle	148 (15%)	30	22	12	129 (87%)	7 (5%)
Snowmobiling	103 (10%)	34	25	16	84 (82%)	7 (7%)
Dirt biking/mini bikes/motocross	60 (6%)	22	21	11	57 (95%)	<5
Downhill skiing	42 (4%)	36	22	8	33 (79%)	<5
Horseback riding	52 (5%)	46	22	16	26 (50%)	<5
Snowboarding	43 (4%)	21	20	8	36 (84%)	<5
All sports/rec	988 (100%)	31	22	13	809 (82%)	61 (6%)

* Percent of all 988 cases indicating sports/recreational injury
** Percent within cause of sports/recreational injury
¥ In-hospital death or died in emergency
<5 = actual number suppressed because cell count <5

Note: Unlike the International Classification of Diseases, the NTR CDS permits documentation of whether the injured person was involved in a sports or recreational activity at the time of injury, and if yes, specification of the type of activity. Currently, the sports and recreation code in the NTR CDS can distinguish from among 96 types of sports and recreational activities.

6. Clinical Aspects of Major Injury

A. Diagnosis of Injury

Figure 19 shows the type of injury according to diagnosis for 2002–2003 NTR CDS cases. Cases from British Columbia have been excluded because injury diagnosis codes were not available. Sixty-five percent (n = 5,443) of injury cases had a head injury, 64% (n = 5,342) had an orthopaedic injury, and 59% (n = 4,989) had a superficial injury.

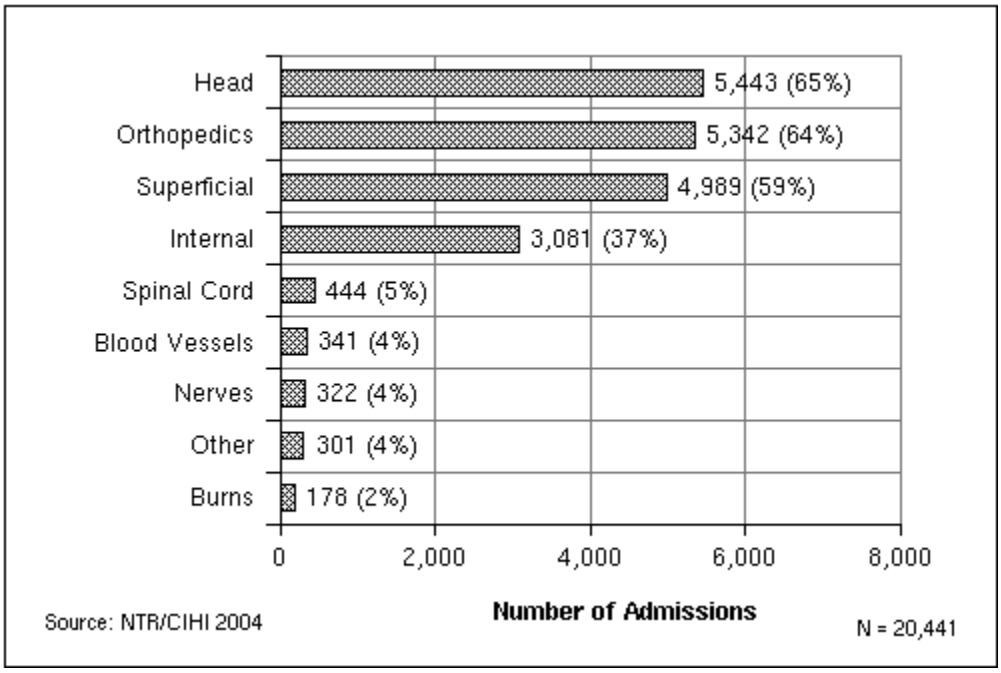

Figure 19. Injury (N Code) Type for All Injury Cases, 2002–2003

Additional analyses by age group are shown in Appendix E, Table 8. For the definition of injury types, refer to Appendix C.

Note: Denominator for the percentage calculations is the total number of cases for the year excluding British Columbia (n = 8,390), as injury diagnosis codes were not available for that province. If a case has injuries that fall into several of the injury types listed, the case is counted once in *each* type. If a case has injuries that all fall into one injury type, then the case is counted once in *that* type.

B. Deaths

Highlight statistics for *deaths* among the injury cases in the 2002–2003 NTR CDS (Appendix E, Tables 3, 4, 9, and 10) include:

- 1,369 deaths (representing 14% of all injury cases),
- 371 died in the Emergency Department and 998 died after admission to hospital,
- 70% (n = 963) were males,
- Mean ISS was 33 (median = 26), and
- Mean length of stay was 10 days (median = 3).

Figure 20 shows the causes of injury for these cases. The leading causes of injury among these cases were motor vehicle collisions (42%, n = 570), followed by unintentional falls (32%, n = 433). The next leading causes were homicide and injury purposely inflicted (8%, n = 116) and suicide and self-inflicted injury (8%, n = 110), both of which exclude poisonings.

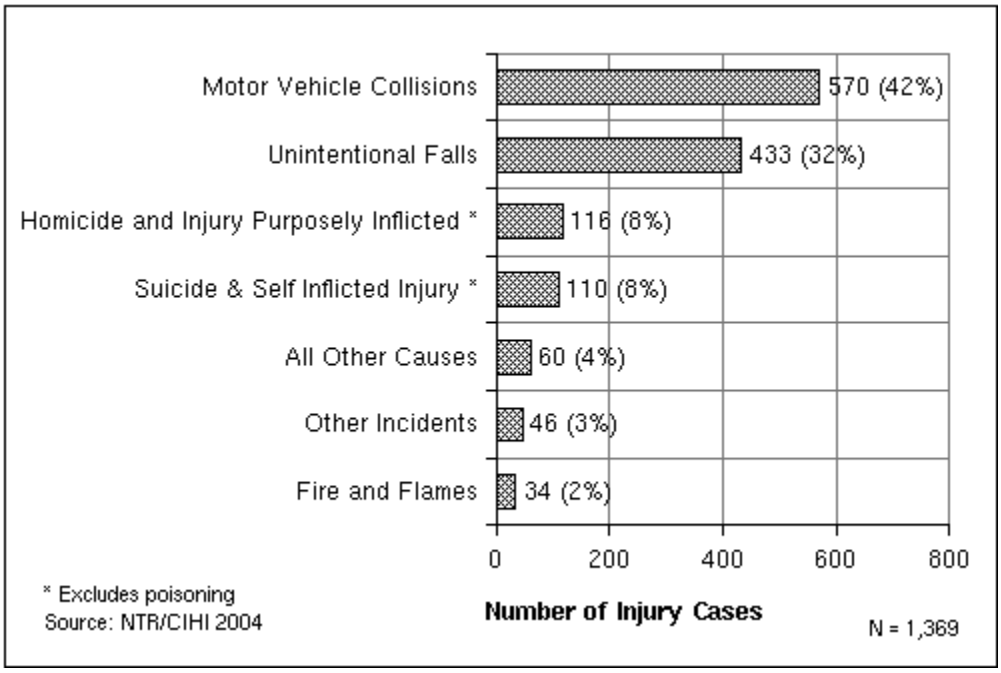

Figure 20. Causes of Injury—All Deaths, 2002–2003

C. Discharge Disposition

Figure 21 shows the discharge disposition of all injury cases. Fourteen percent (n = 1,369) of the 9,892 injury cases in the 2002–2003 NTR CDS died in hospital. The majority (86%, n = 8,523) of major injury cases were discharged alive from hospital.

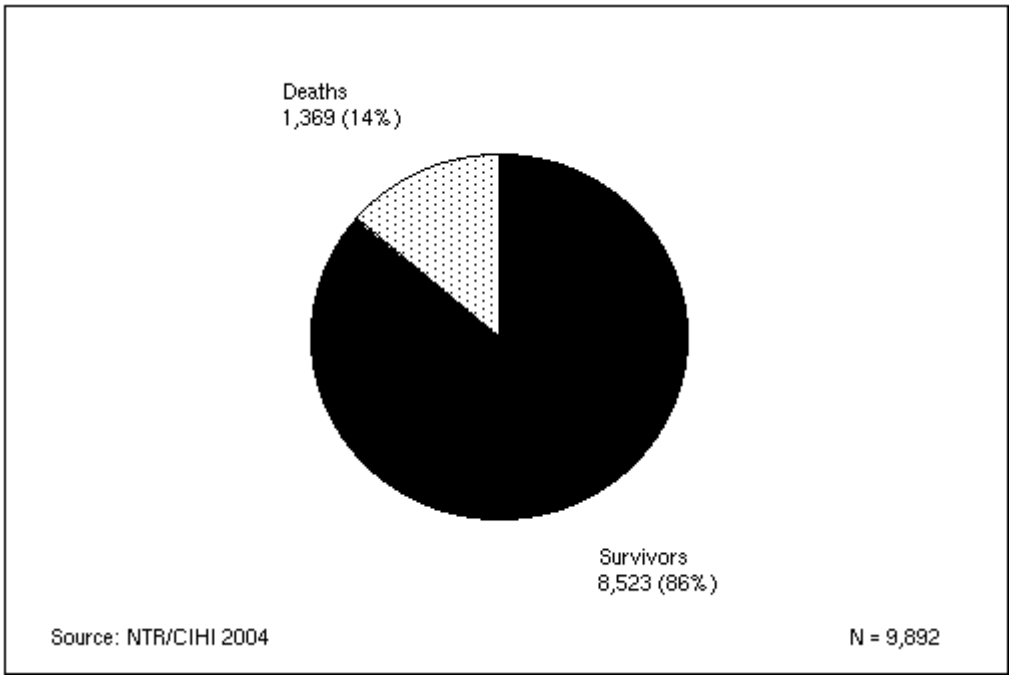

Figure 21. Discharge Disposition—All Cases, 2002–2003

Figure 22 shows the discharge disposition of the survivors. Fifty-seven percent (n = 4,826) were discharged home, including 1,237 who required support services at home. Nineteen percent (n = 1,648) were discharged to a rehabilitation facility, 16% (n = 1,370) to acute care, and the remainder (8%, n = 669) were discharged to a nursing home, chronic care facility, or another type of facility.

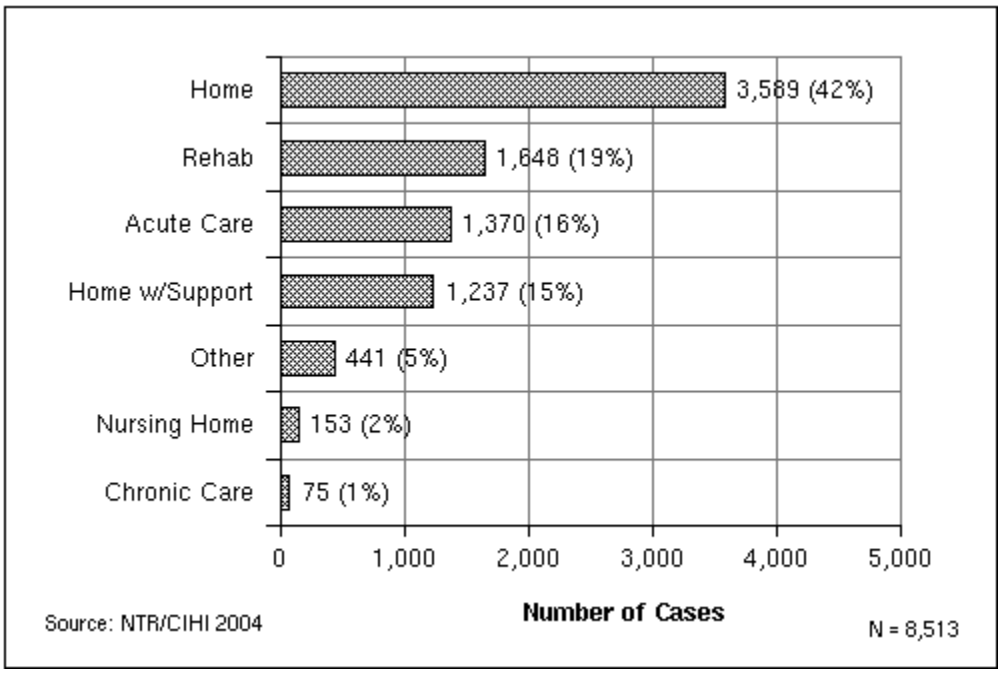

Figure 22. Discharge Disposition—Survivors, 2002–2003*

*Note: 10 cases have missing discharge disposition

D. Injury Severity Score

The Injury Severity Score (ISS) is an internationally recognized scoring system developed to assign a level of severity to injury. ISS scores range from 1 (minor) to 75 (major).

The mean ISS among all injury cases was 24 (median = 22).

Figure 23 shows the mean ISS by age group and outcome. Among all cases, the mean ISS was comparable across age groups, ranging from 23 to 25. The mean ISS was also comparable among injury cases who were discharged alive, ranging from 21 to 24. Among injury cases who died, the mean ISS was considerably higher for all age groups compared to survivors. Ranging from 29 to 37, the highest mean ISS characterized the 20 to 34 year old age group and the group under 20 years of age.

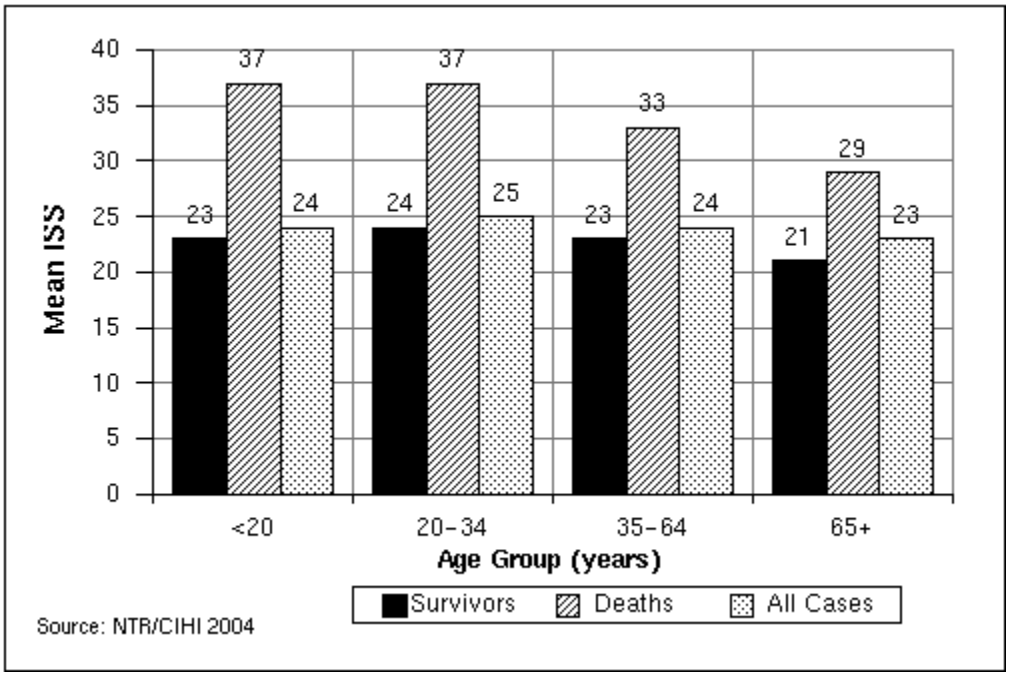

Figure 23. Mean Injury Severity Score (ISS) by Outcome and Age Group, 2002–2003

Figure 24 shows the mean ISS by outcome and cause of injury. Among survivors, deaths, and all cases, the highest mean ISS characterized motor vehicle collision injury cases (ISS = 25, 38, and 26 respectively).

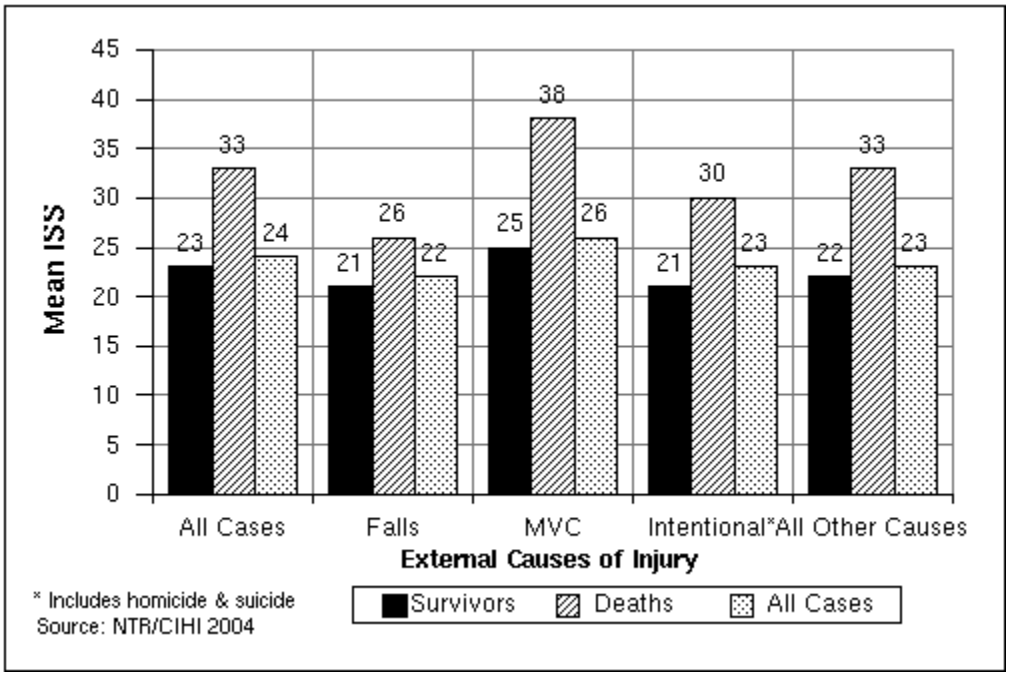

Figure 24. Mean Injury Severity Score (ISS) by Outcome and Cause of Injury, 2002–2003

Figure 25 shows the mean ISS by outcome and type of injury. Among all cases and deaths, the highest mean ISS was among cases with burn injuries (ISS = 26 and 36, respectively). Among survivors, the mean ISS was highest among cases with burn injuries and blunt injuries (ISS = 23).

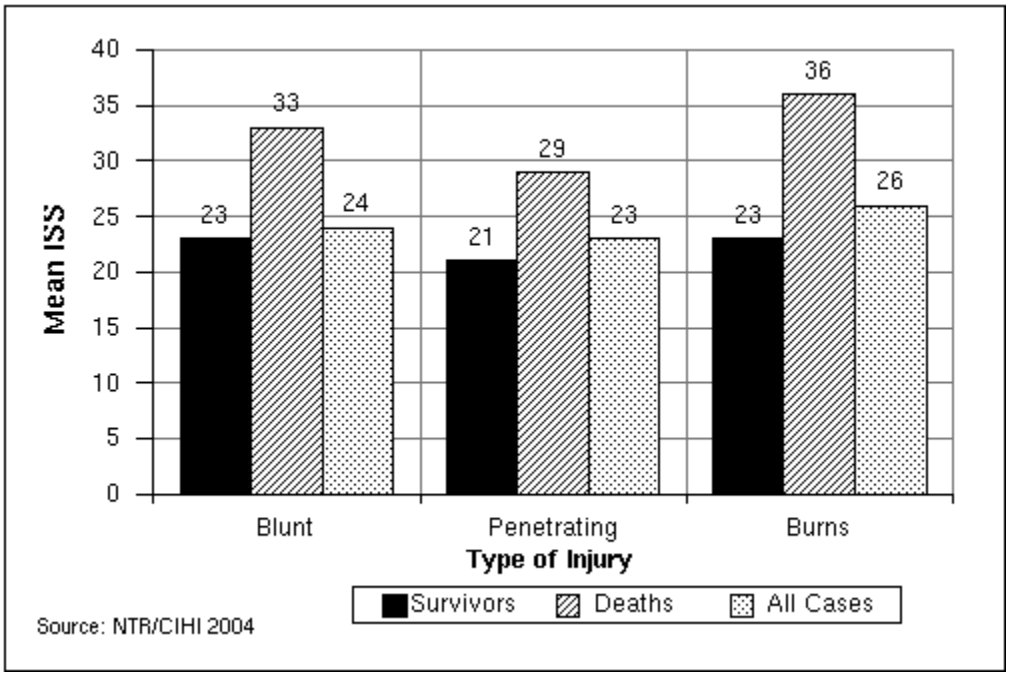

Figure 25. Mean Injury Severity Score (ISS) by Outcome and Type of Injury, 2002–2003

E. Length of Stay

Length of stay is defined as the total number of hospital days as calculated from date of admission to date of discharge or death.

Injury cases accounted for 162,082 hospital days with a mean length of stay (LOS) of 17 days (median = 9).

Figure 26 shows mean LOS by outcome and age group. Among survivors, deaths, and all cases, the highest mean LOS was observed among those 65 years of age and over (LOS = 21, 14, and 19 days, respectively). In general, the older the patient, the longer the hospital stay.

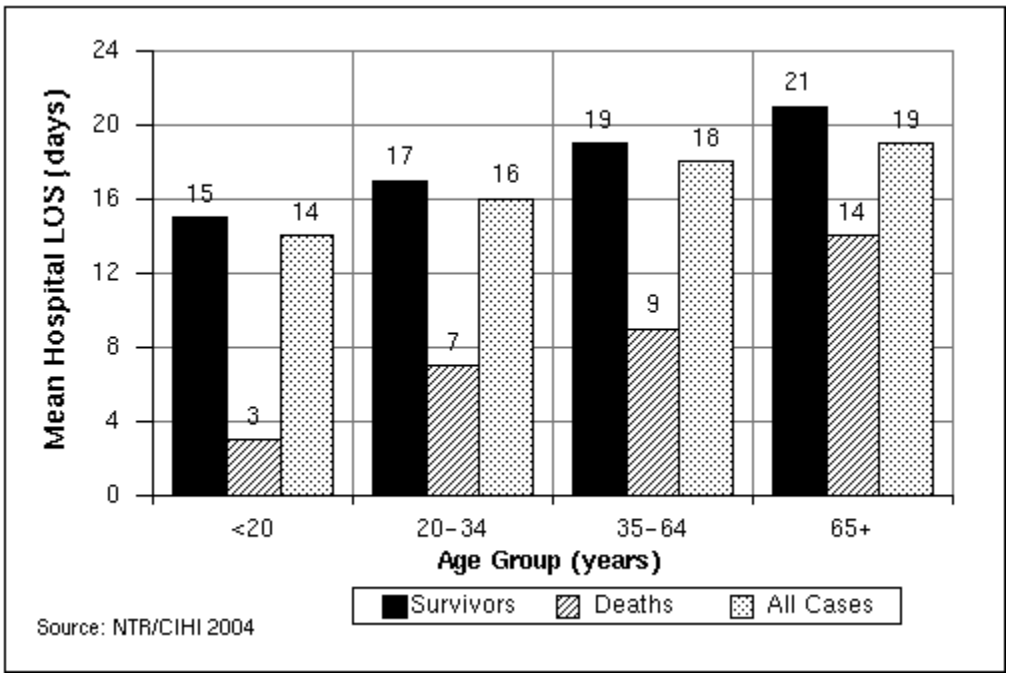

Figure 26. Mean Length of Stay (LOS) by Outcome and Age Group, 2002–2003

Figure 27 shows mean LOS by outcome and leading cause of major injury. Among survivors, the highest mean LOS by specified cause was among motor vehicle collision cases (LOS = 19 days). Among deaths, the highest mean LOS was among unintentional fall cases (LOS = 12 days).

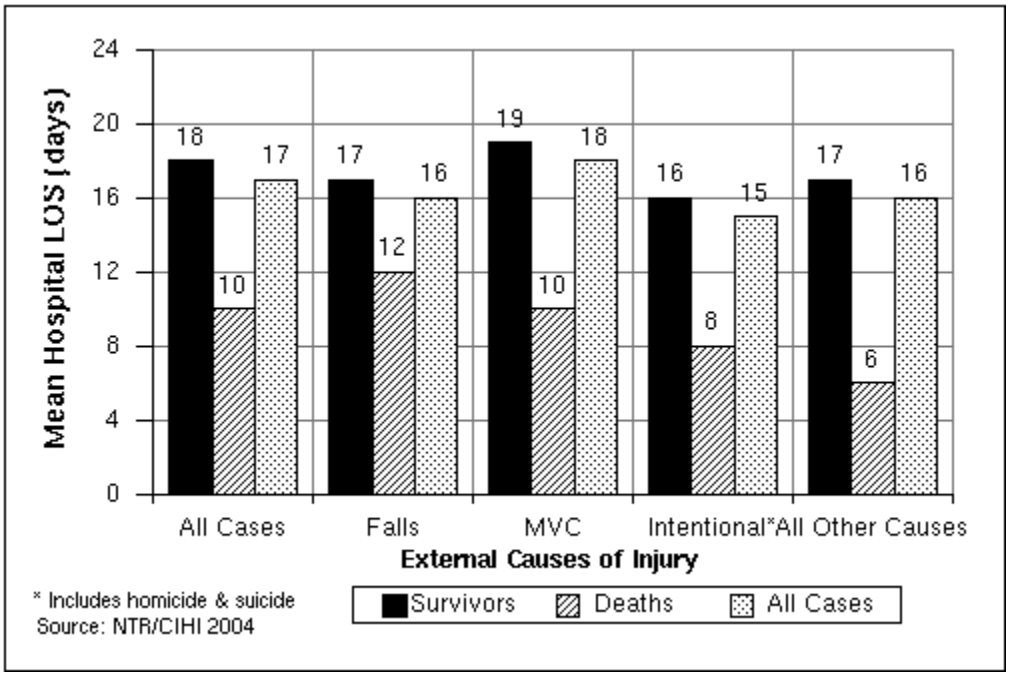

Figure 27. Mean Length of Stay (LOS) by Outcome and Cause of Major Injury, 2002–2003

Figure 28 shows mean LOS by outcome and type of injury. Among survivors and all cases, the highest mean LOS was among cases with a burn injury (LOS = 35 and 30 days, respectively).

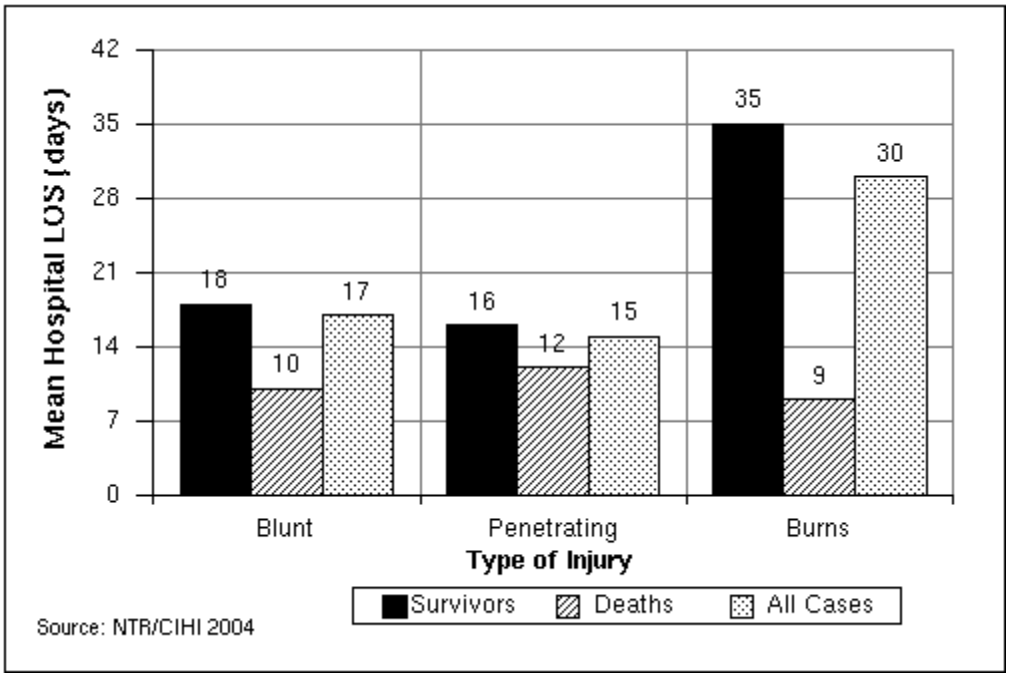

Figure 28. Mean Length of Stay (LOS) by Outcome and Type of Injury, 2002–2003

Appendix A

Data Elements

NTR CDS Data Elements and Definitions

Data Element Name	Definition
Institution Number	Institution unique identifier
Trauma Number	Unique identifier within the institution
Fiscal Year	Fiscal year of data submitted
Province	Submitting province identification
Unique Personal Identifier	A unique identifier to identify the record and for potential record linkage studies
Age	The patient's age in years at the time of admission
Sex	The patient's sex
Date of Injury	The date the patient was injured
Place of Incident	The ICD place of injury category that describes the place of injury for the patient's most serious injuries
Date of Admission	Date the patient is admitted to the trauma centre
Direct Admission	Indicates whether the patient was admitted directly to the trauma centre from the scene (i.e. not seen at another hospital)
Length of Stay (LOS)	Total number of hospital days from date of admission to date of discharge or death
Date of Discharge	The date the patient was discharged from hospital or the Emergency Department or the date the patient died in hospital
Separation Status	The status of the patient at discharge from the trauma centre
Injury Type	An indication of the patient's most serious injury
Injury Etiology (E-code)	The 4-digit ICD-9-CM External Cause of Injury Code (E Code) that reflects the cause of the patient's most serious injuries
Injury Severity Score (ISS)	The patient's Injury Severity Score as calculated at discharge
Number of Days Ventilated	The number of days the patient was intubated and mechanically ventilated intermittently or continuously, excluding nonintubated patients on BIPAP and intubated patients on CPAP at the hospital
Blood Alcohol Concentration (BAC)	The patient's BAC (mmol/L) at the trauma centre
Patient's Postal Code	The postal code of the patient's usual residence
Discharge Disposition	The location to which the patient is discharged or the service arranged for the patient immediately upon discharge from hospital
Date of Arrival at Trauma Centre	Date the patient arrives at the trauma centre
Time of Injury	The time the patient was injured using the 24-hour clock

Data Element Name	Definition
Mode of Transport from Scene	Indicates the type of vehicle used to first transport the patient directly from the scene
Transported by Land Ambulance	Indicates whether any portion of the patient's transfer to the trauma centre was by land ambulance
Transported by Air Ambulance	Indicates whether any portion of the patient's transfer to the trauma centre was by air ambulance
Regional Identifier of Incident Location (GEOCODE)	A unique code used to describe the geographic location of where the patient was injured; may be a province specific coding system or a geographic reference (i.e. Statistics Canada's Census Divisions, geocode)
Sports/Recreational Activity Code	If the person is injured while participating or observing in any sports or recreational activity regardless of whether the person is being paid to participate, the appropriate activity is selected from a list
Work-Related Code	Code indicating the occurrence of an injury while the person is being paid for services (excludes travel to and from work)
Protective Devices (up to 4 can be listed)	Any protective device in use or not in use by the injured patient at the time of the incident
Systolic Blood Pressure on Arrival at Trauma Centre	Patient's first recorded systolic blood pressure at the trauma centre
Intubation Code on Arrival at Trauma Centre	Code indicating whether patient was intubated at the time the Glasgow Coma Scale was calculated at the trauma centre
Unassisted Respiratory Rate on Arrival at Trauma Centre	Patient's first unassisted respiratory rate per minute
Paralytic Agents in Effect on Arrival at Trauma Centre	Paralytic agents in effect when the Glasgow Coma Scale was calculated at the trauma centre
GCS—Eye Opening on Arrival at Trauma Centre	Patient's best eye opening response for the Glasgow Coma Scale at the trauma centre
GCS—Verbal Response on Arrival at Trauma Centre	Patient's best verbal response for the Glasgow Coma Score at the trauma centre
GCS—Motor Response on Arrival at Trauma Centre	Patient's best motor response for the Glasgow Coma Score at the trauma centre
Total GCS on Arrival at Trauma Centre	Glasgow Coma Scale—Calculated field based on eye opening, verbal and motor responses at the trauma centre
Total RTS on Arrival at Trauma Centre	Revised Trauma Score at the time of admission to the submitting hospital. Calculated field based on Glasgow Coma Scale, systolic blood pressure and respiratory rate
Predot Injury Codes (up to 27)	Abbreviated Injury Scale (AIS-90) predot codes that reflect the patient's injuries

Data Element Name	Definition
Severity Codes (up to 27)	AIS severity and body region codes that reflect the patient's injuries
AIS Code by ISS Body Region (6 regions)	Calculated field based on the highest AIS recorded for the 6 body regions
Operative Procedures (up to 10)	ICD9-CM Operative procedures performed on the patient; procedures must be related to the injury
Nature of Injury Codes (up to 27)	ICD9-CM diagnosis codes that reflect the patient's injuries
Complications (up to 10)	ICD9-CM diagnosis codes describing a condition arising after the beginning of the hospital observation or treatment which usually has a significant influence on the patient's hospitalization or significantly influences the management of treatment of the patient

Appendix B

Trauma Definition:
E Code Inclusions and Exclusions

Trauma Definition: E Code Inclusions

The conceptual definition of trauma as *injury resulting from the transfer of energy* has been approved by the National Trauma Registry Advisory Committee.

The following table lists the E Code categories used for reporting purposes based on the trauma definition. "Incident" and "unintentional" have been substituted for the terms "accident" and "accidental" used in the ICD definitions.

E Code Inclusions	
E Code Category	**Definition**
E800–E807	Railway incidents
E810–E819	Motor vehicle traffic incidents
E820–E825	Motor vehicle non-traffic incidents
E826	Pedal cycles
E827–E829	Other road vehicle incidents
E830–E838	Water transport incidents
E840–E845	Air and space transport incidents
E846–E848	Vehicle incidents not elsewhere classifiable
E880–E888	Unintentional falls
E890–E899	Incidents caused by fire and flame
E900–E902, E906–E909	Incidents due to natural and environmental factors
E910	Incidents caused by drowning
E913	Incidents caused by suffocation
E914–E915	Foreign bodies (excluding choking)
E916–E928	Other incidents
E953–E958	Suicide and self inflicted injury (excluding poisoning)
E960–E961, E963–E968	Homicide and injury purposely inflicted by other persons (excluding poisoning)
E970–E976, E978	Legal intervention
E983–E988	Injury undetermined whether unintentionally or purposely inflicted
E990–E998	Injury resulting from operations of war

Trauma Definition: E Code Exclusions

The following lists the E Code categories that are excluded from the National Trauma Registry definition of trauma.

E Code Exclusions	
E Codes	**Definition**
E850–E858	Poisoning by drugs
E860–E869	Poisoning by gases
E870–E876	Misadventures
E878–E879	Complications
E903	Travel and motion
E904	Hunger, thirst, exposure, neglect
E905	Venomous animals and plants
E911	Inhalation and ingestion of food causing obstruction
E912	Inhalation and ingestion of other objects causing obstruction
E929	Late effects of unintentional injury
E930–E949	Drugs, medicinal and biological substances causing adverse effects
E950–E952	Suicide and self-inflicted injury (poisonings)
E959	Late effects of self-inflicted injury
E962	Assault by poisoning
E969	Late effects of injury purposely inflicted by other person
E977	Late effects of injury due to legal intervention
E980–E982	Poisoning—undetermined whether unintentionally or purposely inflicted
E989	Late effects—injuries of undetermined intentionality
E999	Late effects due to war

Appendix C

Injury Types

Injury Types

The following provides information on the specific diagnosis codes for the injury types described in this report.

Injury Types		
Injury Type	**N Code Range**	**N Code Descriptions**
Superficial	N910–N919 N920–N924 N870–N879 N880–N884 N890–N894	Superficial injuries Contusion with intact skin surfaces Open wound of head, neck and trunk Open wound of upper limb Open wound of lower limb
Orthopaedic	N802 N805 and N807–N829 N830–N839 N925–N929 N885–N887 N895–N897 N840–N848	Fractures of facial bones Fractures (excluding fractured skull and fractures of vertebral column with spinal cord injury) Dislocations Crushing injury Amputations of upper limb Amputations of lower limb Sprains and strains of joints and adjacent muscles
Burns	N940–N949	Burns
Head injury	N800–N801 and N803–N804 N850–N854	Fractured skull Intracranial injury excluding those with skull fracture
Spinal cord injury	N806 N952	Fractures of vertebral column with spinal cord injury Spinal cord injury without spinal bone injury
Internal injury	N860–N869	Internal injury of chest, abdomen and pelvis
Blood Vessels	N900–N904	Injury to blood vessels
Nerves	N950 N951 N953–N957	Injury to optic nerve Injury to other cranial nerves Injury to other nerves
Other	N930–N939 (excluding N933.1) N990–N993 and N994 (excluding N994.2, .3, .6) N959	Foreign body (excluding choking—N933.1) Other and unspecified effects of external causes Injury, other and unspecified

Appendix D

Definition of Terms

Definition of Terms

Note:
The terms "accident" and "accidentally" used in the International Classification of Diseases have been replaced in this document with "incident" and "unintentionally".

Acute Care Hospital

A hospital in which active treatment is received.

Admission

An admission to a participating acute care hospital in Canada as a result of injury defined by particular ICD-9-CM External Cause of Injury Codes (E Codes) and an ISS > 12. Admissions include hospital deaths.

Admission Day

The day of the week the patient is admitted to hospital.

Age Groups

The age groups used by the National Trauma Registry for reporting have been selected for comparability to other sources of information and to report on specific trends such as injury in children, young adults and in the elderly. Generally, the age groups reported on are as follows: <1, 1–4, 5–9, 10–14, 15–19, 20–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84 and over 85 years of age.

Aircraft

Any device for transporting passengers or goods in the air including airplanes, balloons, bombers, gliders, parachutes and military aircraft.

AIS

The Abbreviated Injury Scale was developed to provide researchers with a simple numerical method for ranking and comparing injuries by severity, and to standardize the terminology used to describe injuries. The AIS is a consensus derived, anatomically based system that classifies individual injuries by body region on a 6-point ordinal severity scale ranging from AIS 1 (minor) to AIS 6 (currently untreatable).

BAC

A positive blood alcohol concentration is greater than or equal to 17.0 mmol/L.

Blunt Injury Type

Refers to the type of injury reflecting the cause of injury (i.e. a motor vehicle collision, a blow to the head). Blunt injury may include deep lacerations but does not include any injury in which a missile such as a knife or bullet enters the body.

Burn Injury Type

Isolated burns with an ISS > 12 or burns with an AIS = 1 are documented as a burn injury. A burn injury with another injury AIS > 1 should be documented as a blunt or penetrating injury type depending on the other injury.

Case

A case in the Comprehensive Data Set is any patient who has an ISS > 12 and an appropriate E Code treated at a participating hospital.

CIHI

The Canadian Institute for Health Information (CIHI) is an independent, national, not-for-profit organization working to improve the health of Canadians and the health care system by providing quality health information.

COLLECTOR

Specialized software from Digital Innovation, Inc. and Tri-Analytics, Inc. used by most participating trauma registries to collect prehospital, demographics, nature and cause of injury and follow up information on severely injured patients.

Comprehensive Data Set

One of three major data sets of the National Trauma Registry that includes data on severely injured patients treated at participating hospitals. See the *Methodological Notes* section of this report.

Cyclists

Injured cyclists are defined by International Classification of Diseases (ICD) External Cause of Injury Codes (E Codes) E826 (Pedal Cycle Incident) and decimals identifying the injured person as a cyclist from the E Code range E820–825 (Motor Vehicle Nontrafffic Incidents) and E810–819 (Motor Vehicle Traffic Incidents).

Death Data Set

One of three major data sets of the National Trauma Registry that will include data on all injury deaths in the Canada (currently under development).

Deaths

All deaths occurring in participating hospitals with an ISS > 12. Patients who are dead on arrival (DOA) are excluded.

Direct Admission

A direct admission is defined as a patient whose first contact with a hospital is at a participating hospital (not referred).

Discharged Alive

An admitted patient that is discharged from hospital alive, including those patients that sign themselves out against medical advice.

Driver

A driver of a motor vehicle is the occupant of the motor vehicle operating it or intending to operate it.

External Cause of Injury (E Codes)

The External Cause of Injury chapter of the ICD coding system allows the classification and analysis of environmental events, circumstances, and conditions as the cause of injury. Examples include Falls (E880–888) and Motor Vehicle Traffic Incidents (E810–819). Where a code from this section is applicable, it is intended that it shall be used in addition to a code from one of the main chapters of ICD-9-CM indicating the nature of the condition. All reports are based on the first documented E Code recorded unless otherwise specified. E Codes that are included and excluded in the trauma definition are found in Appendix B.

Homicide

Injuries inflicted by another person with intent to injure or kill, by any means.

ICD (International Classification of Diseases)

The International Classification of Diseases is a World Health Organization (WHO) publication that classifies morbidity and mortality information for statistical purposes, and for the indexing of hospital records by disease and operations, for data storage and retrieval. ICD manuals may be found in hospital Health Record Departments or in public libraries.

ICD-9

The International Classification of Diseases, 9th Revision is based on the official version of the World Health Organization.

ICD-9-CM

In 1977, a Steering Committee was convened by the National Centre for Health Statistics to provide advice on the development of a clinical modification of the ICD-9 with increased detail necessary for medical research. ICD-9-CM is totally compatible with ICD-9, meeting the need for comparability of morbidity and mortality statistics at the international level.

ICD-10-CA

The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Canada is based on the World Health Organization ICD-10 and is wholly comparable with that classification. ICD-10 is the official classification used for reporting mortality data in Canada; ICD-10-CA is the Canadian national standard for reporting morbidity statistics.

Injured Person

An injured person is identified by a subdivision of the External Causes of Injury Codes for all transport E Codes (E800–E848). Injured persons include drivers, passengers, pedestrians, cyclists and other specified persons.

Injury Resulting from Operations of War

An E Code category used to classify injuries to military personnel and civilians caused by war and civil insurrection and occurring during time of war and insurrection.

Injury Severity Score (ISS)

The Injury Severity Score is an internationally recognized scoring system developed to assign a level of severity to injury. ISS scores range from 1 (minor) to 75 (major).

Injury Type

Refers to the patient's most serious injury and may be classified as blunt, penetrating or burns. In determining the type of injury, the cause of injury is considered. Also see definitions for penetrating injury type, blunt injury type and burn injury type.

Injury Undetermined Whether Unintentionally or Purposely Inflicted

An E Code category used when after a thorough investigation by the medical examiner, coroner, or other legal authority, it cannot be determined whether the injuries are unintentional, suicidal or intentional.

Intentional Injury

Intentional injury refers to injury purposely inflicted by another person or by the patient.

Late Effects

Conditions reported as such or occurring as sequelae one year or more after injury. Late Effects are excluded from the definition of trauma.

Legal Intervention

An E Code category used to classify injuries inflicted by the police or other law enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order and other legal action.

Length of Stay (LOS)

Total number of hospital days as calculated from date of admission to date of discharge or death.

Mean

A measure of central tendency of a set of observations; the average.

Median

A measure of central tendency of a set of observations; 50th percentile (the point above and below which 50% of data fall).

Minimal Data Set

One of three major data sets of the National Trauma Registry that includes data from the CIHI Discharge Abstract Database and provincial Ministries of Health on acute care injury hospitalizations in Canada.

Motor Vehicle

Any mechanically or electrically powered device, not operated on rails, upon which any person or property may be transported or drawn upon a highway. Any object such as a trailer, coaster, sled, or wagon being towed by a motor vehicle is considered a part of the motor vehicle. This category includes automobiles, buses, fire engines, motorcycles, mopeds or scooters, vans, trucks, and construction machinery, farm and industrial machinery, steam rollers, tractors, army tanks, highway graders, snowmobiles, ATVs, or similar vehicles on wheels or treads, while in transport under its own power.

Motor Vehicle Incident

A transport incident involving a motor vehicle. It is defined as a motor vehicle traffic incident or as a motor vehicle non-traffic incident according to whether the incident occurs on a public highway or elsewhere.

Motor Vehicle Non-Traffic Incident

Any motor vehicle incident which occurs entirely in any place other than a public highway.

Motor Vehicle Traffic Incident

Any motor vehicle incident occurring on a public highway (e.g. originating or terminating on a public highway, or involving a vehicle partially on the highway). A motor vehicle incident is assumed to have occurred on the highway unless another place is specified, except in the case of incidents involving only off-road motor vehicles which are classified as non-traffic incidents unless the contrary is stated.

Motorcycle

A two wheeled motor vehicle having one or two riding saddles and sometimes having a third wheel for the support of a sidecar. The sidecar is considered part of the motorcycle.

National Trauma Registry Advisory Committee (NTRAC)

The multidisciplinary group responsible for guiding the implementation and operation of the National Trauma Registry.

Nature of Injury (N Codes)

The Nature of Injury section (Chapter 17) of the ICD coding system is used to describe in detail the specific results of an injury. Examples include fractures, dislocations, sprains and strains, intracranial injuries, internal injuries and open wounds.

Off-Road Motor Vehicle

A motor vehicle of special design, to enable it to negotiate rough or soft terrain or snow. Examples of special design are high construction, special wheels and tires, driven by treads, or support on a cushion of air. This category includes all terrain vehicles, army tanks, hovercrafts, and snowmobiles.

Other Incidents

Refers to the "Other Accidents" category as described in the ICD-9-CM manual for the E Code range of E916–E928.

Other Road Vehicle

Any device, except a motor vehicle in, on, or by which any person or property may be transported on a highway. This category includes pedal cycles, animals carrying persons or goods, animal drawn vehicles, animals harnessed to conveyances and streetcars.

Outcome

Refers to whether the patient lived or died.

Participating Hospital

An acute care facility which contributes data on severely injured patients to the National Comprehensive Data Set.

Patient Days

The number of days a patient is hospitalized.

Pedal Cycle

Any road transport vehicle operated solely by pedals including bicycles, pedal cycles and tricycles.

Pedal Cyclist

Any person riding on a pedal cycle or in a sidecar attached to such a vehicle. Also see definition for cyclist.

Pedestrian

Any person involved in an incident who was not at the time of the incident riding in or on a motor vehicle, railroad train, streetcar, animal-drawn or other vehicle, or on a bicycle or animal. The pedestrian category includes a person changing a tire on a vehicle, in or operating a pedestrian conveyance, making adjustments to the motor of a vehicle or on foot.

Pedestrian Conveyance

Any human powered device by which a pedestrian may move other than by walking or by which a walking person may move another pedestrian including baby carriages, wagons, ice skates, roller skates, scooters, skateboards, skis, sleds and wheelchairs.

Penetrating Injury Type

Refers to an injury caused by a missile entering the body. Missiles include bullets, knives and items such as pieces of sharp glass or metal.

Public Highway

A public highway or trafficway is the entire width between property lines of every way or place, of which any part is open to the use of the public for purposes of vehicular traffic as a matter of right or custom. This category excludes private driveways, parking lots, and roads in airfields, farms industrial premises, mines, private grounds or quarries.

Railway Incident

A transport incident involving a railway train or other railway vehicle operated on rails, whether in motion or not.

Roadway

That part of the public highway designed, improved, and ordinarily used, for vehicular travel. This excludes driveways, parking lots, ramps, roads in farms, airfields, industrial premises, private grounds, mines and quarries.

Single Year of Age

Individual values for ages less than 1 year through 100 years which may be used rather than age groups.

Small Boat

Any watercraft propelled by paddle, oars, or a small motor, with a passenger capacity of less than ten.

Suicide

Self-inflicted injuries specified as intentional excluding admissions that result from poisonings.

Survivors

Refers to those patients who are discharged alive.

Total Admissions

Total number of patients admitted to hospital excluding those who are Dead on Arrival (DOA), Died in Emergency (DIE) and discharged from the Emergency Department.

Total Patient Days

Sum of length of stay for all admissions.

Transfers

A transferred patient is one whose first contact with a hospital is with a non-participating hospital and who is subsequently transferred to a participating hospital.

Transport Incident

Any incident (E800–E848) involving a device designed primarily for, or being used at the time primarily for, conveying persons or goods from one place to another. In classifying incidents which involve more than one kind of transport, the following order of precedence of transport incidents should be used: aircraft and spacecraft, watercraft, motor vehicle, railway, other road vehicles.

Incidents involving agricultural and construction machines, such as tractors, cranes, and bulldozers, are regarded as transport incidents only when these vehicles are under their own power on a highway, otherwise the vehicles are regarded as machinery. Vehicles which can travel on land or water, such as hovercraft and other amphibious vehicles, are regarded as watercraft when on the water, as motor vehicles when on the highway, and as off road vehicles when on land, but off the highway.

Trauma

Injury resulting from the transfer of energy e.g. kinetic, thermal. See Appendix B for External Causes of Injury (E Codes) used to define trauma for the purposes of the National Trauma Registry.

Ventilator Days

The number of days the patient was intubated and mechanically ventilated intermittently or continuously excluding nonintubated patients on BIPAP and intubated patients on CPAP. Ventilator days include any part of 1 day up to midnight including the day the ventilator is discontinued and excluding the day the ventilator is begun. A ventilator day is counted if a ventilated patient is admitted and discharged in the same day or if the ventilation is started and discontinued in the same day. Routine intubation for OR is not included.

Watercraft

Any device for transporting passengers or goods on the water.

Appendix E

Data Tables

Appendix E—Data Tables

Table of Contents

COMPREHENSIVE DATA SET - SUMMARY

		1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
CASES		6,448	6,640	8,784	9,313	9,892
DEATHS		986	972	1,272	1,296	1,369
DIRECT ADMISSIONS*		1,757	3,310	3,524	3,757	3,998
MALES		4,601	4,747	6,324	6,694	7,108
AGE (YEARS)						
	MEAN (+ / - STANDARD DEV.)	41.4(+ / -22.8)	41.9(+ / -22.7)	41.5(+ / -22.8)	42.6(+ / -23.0)	42.9(+ / -23.0)
	MEDIAN	38.0	39.0	39.0	40.0	41.0
AGE GROUPS						
	<20 years	1,207	1,211	1,698	1,687	1,773
	20-34 years	1,660	1,607	2,134	2,197	2,324
	35-64 years	2,250	2,452	3,216	3,409	3,687
	65+ years	1,329	1,365	1,734	2,017	2,105
	UNKNOWN AGE	2	5	2	3	3
INJURY SEVERITY SCORE						
	MEAN (+ / - STANDARD DEV.)	24.6(+ / -10.9)	24.4(+ / -10.9)	24.2(+ / -10.5)	23.9(+ / -10.2)	24.1(+ / -10.4)
	MEDIAN	22.0	22.0	22.0	22.0	22.0
REVISED TRAUMA SCORE+++						
	MEAN (+ / - STANDARD DEV.)	7.5(+ / -0.8)	7.5(+ / -1.0)	7.6(+ / -0.9)	7.7(+ / -1.2)	7.5(+ / -0.9)
	MEDIAN	7.8	7.8	7.8	7.8	7.8
LENGTH OF STAY(DAYS)						
	MEAN (+ / - STANDARD DEV.)	16.1(+ / -21.4)	16.9(+ / -26.5)	16.2(+ / -24.0)	16.9(+ / -24.4)	17.1(+ / -27.0)
	MEDIAN	9.0	9.0	9.0	9.0	9.0
	MINIMUM	1	1	0	1	1
	MAXIMUM	304	640	395	399	608

Table 1

COMPREHENSIVE DATA SET - SUMMARY

	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
TYPE OF INJURY++++					
BLUNT	5,921	6,133	8,205	8,691	9,286
PENETRATING	318	316	391	395	414
BURNS	173	191	168	227	190
EXTERNAL CAUSE OF INJURY**					
MVC	2,535	2,612	4,241	4,386	4,682
FALLS	1,409	1,527	2,483	2,656	2,898
INTENTIONAL***	540	540	930	1,040	1,098
ALL OTHER	663	718	1,088	1,231	1,214
VENTILATOR DAYS++					
NUMBER OF CASES WITH	2,482	2,386	3,070	3,365	3,399
MEAN (+ / - STANDARD DEV.)	6.5(+ / -13.3)	6.7(+ / -10.5)	6.9(+ / -14.7)	7.1(+ / -15.0)	7.1(+ / -18.0)
MEDIAN	3.0	3.0	3.0	2.0	3.0
NUMBER OF POSITIVE BAC's(>=17.0 mmol/L)+	816	800	845	957	980

***Includes cases from Ontario and Alberta in 1996-1997, all provinces in 1997-1998 and excludes Alberta from 1998-1999 and on.**
**** Cases from Newfoundland(96-97) and British Columbia (all years) have been excluded because they do not collect External Cause of Injury codes(E Codes).**
***** Intentional Injury: E953 - E958 (Suicide & Self Inflicted Injury, excl. Poisoning), E960 - E961, E963 - E968 (Homicide & Injury Purposefully Inflicted).**
+ Positive BAC excludes Quebec and Manitoba.
++ Manitoba was excluded from ventilator days calculation as data not provided.
+++ Quebec excluded from Revised Trauma Score calculation as data not currently collected.
++++ Two cases with missing or invalid injury type data excluded.

Participating provinces:

1998-1999: British Columbia, Alberta, Ontario, Newfoundland and Labrador, Nova Scotia
1999-2000: British Columbia, Alberta, Manitoba, Ontario, Nova Scotia
2000-2001: British Columbia, Alberta, Manitoba, Ontario, Quebec, Nova Scotia, New Brunswick
2001-2002: British Columbia, Alberta, Manitoba, Ontario, Quebec, Nova Scotia, New Brunswick
2002-2003: British Columbia, Alberta, Manitoba, Ontario,Quebec, Nova Scotia, New Brunswick

PATIENT DAYS, MEAN & MEDIAN LENGTH OF STAY BY SEX AND AGE

2002-2003 CASES

	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	UNK	Total
TOTAL															
No. of CASES	96	123	214	370	970	992	1,332	1,408	1,276	1,003	841	922	342	3	9,892
% of CASES	1.0	1.2	2.2	3.7	9.8	10.0	13.5	14.2	12.9	10.1	8.5	9.3	3.5	0.0	100.0
No. of PATIENT DAYS	782	1,653	2,085	5,065	14,354	14,737	21,501	23,365	21,879	18,008	15,722	16,562	6,368	1	162,082
% of PATIENT DAYS	0.5	1.0	1.3	3.1	8.9	9.1	13.3	14.4	13.5	11.1	9.7	10.2	3.9	0.0	100.0
MEAN LOS	8.2	14.4	10.0	14.3	15.4	15.6	16.9	17.1	17.7	18.7	19.5	18.9	20.1	1.0	17.1
STANDARD DEVIATION	12.0	48.8	15.7	38.0	22.4	22.8	29.3	27.7	27.1	27.8	27.4	23.9	24.7	0.0	27.0
MEDIAN LOS	5.0	4.0	5.0	6.0	8.0	9.0	9.0	9.0	10.0	10.0	10.0	10.0	9.0	1.0	9.0
MALES															
No. of CASES	50	76	138	256	698	784	1,070	1,081	983	717	577	515	161	2	7,108
% of CASES	0.7	1.1	1.9	3.6	9.8	11.0	15.1	15.2	13.8	10.1	8.1	7.2	2.3	0.0	100.0
No. of PATIENT DAYS	416	875	1,389	2,549	9,898	11,427	16,628	17,417	16,823	12,320	11,053	9,164	2,953	1	112,913
% of PATIENT DAYS	0.4	0.8	1.2	2.3	8.8	10.1	14.7	15.4	14.9	10.9	9.8	8.1	2.6	0.0	100.0
MEAN LOS	8.5	12.7	10.3	10.4	14.9	15.3	16.3	16.6	17.6	18.0	20.2	18.6	20.0	1.0	16.6
STANDARD DEVIATION	12.3	44.1	17.7	26.5	22.6	21.6	28.6	28.3	28.6	25.9	29.6	24.1	25.9	0.0	26.7
MEDIAN LOS	5.0	4.0	5.0	6.0	7.0	8.0	9.0	9.0	9.0	10.0	10.0	10.0	11.0	1.0	9.0
FEMALES															
No. of CASES	46	47	76	113	272	208	262	325	293	286	263	407	181	1	2,780
% of CASES	1.7	1.7	2.7	4.1	9.8	7.5	9.4	11.7	10.5	10.3	9.5	14.6	6.5	0.0	100.0
No. of PATIENT DAYS	366	778	696	2,503	4,456	3,310	4,873	5,937	5,056	5,688	4,599	7,398	3,415	0	49,075
% of PATIENT DAYS	0.7	1.6	1.4	5.1	9.1	6.7	9.9	12.1	10.3	11.6	9.4	15.1	7.0	0.0	100.0
MEAN LOS	8.0	16.9	9.5	23.2	16.8	16.6	19.2	19.1	18.1	20.5	18.0	19.4	20.2	0.0	18.4
STANDARD DEVIATION	11.8	55.6	11.0	55.2	21.9	26.9	32.0	25.6	21.2	32.0	21.9	23.7	23.7	0.0	27.9
MEDIAN LOS	4.0	4.0	5.0	7.0	9.0	9.0	9.5	10.0	10.0	11.0	10.0	11.0	10.0	0.0	10.0

Note: 4 case with unknown sex.
Note: Cases with no LOS recorded were excluded from LOS calculations.

PATIENT DAYS, MEAN & MEDIAN LENGTH OF STAY BY SEX AND AGE FOR DEATHS
2002-2003 CASES

	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	UNK	Total
TOTAL															
No. of CASES	6	15	20	30	110	103	147	141	131	145	153	235	130	3	1,369
% of CASES	0.4	1.1	1.5	2.2	8.0	7.5	10.7	10.3	9.6	10.6	11.2	17.2	9.5	0.2	100.0
No. of PATIENT DAYS	10	28	21	30	229	210	952	713	799	1,365	1,665	2,646	1,631	1	10,300
% of PATIENT DAYS	0.1	0.3	0.2	0.3	2.2	2.0	9.2	6.9	7.8	13.3	16.2	25.7	15.8	0.0	100.0
MEAN LOS	2.0	2.3	1.2	1.9	3.1	3.3	10.2	6.7	8.2	12.6	14.0	13.7	15.2	1.0	10.2
STANDARD DEVIATION	1.4	2.5	0.7	1.8	7.5	4.1	62.9	11.9	15.8	29.5	26.9	23.3	21.6	0.0	27.4
MEDIAN LOS	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	2.0	2.5	5.0	5.0	8.0	1.0	3.0
MALES															
No. of CASES	3	11	8	21	84	79	120	96	99	108	119	140	73	2	963
% of CASES	0.3	1.1	0.8	2.2	8.7	8.2	12.5	10.0	10.3	11.2	12.4	14.5	7.6	0.2	100.0
No. of PATIENT DAYS	4	24	10	14	195	175	897	434	583	1,106	1,351	1,810	1,034	1	7,638
% of PATIENT DAYS	0.1	0.3	0.1	0.2	2.6	2.3	11.7	5.7	7.6	14.5	17.7	23.7	13.5	0.0	100.0
MEAN LOS	2.0	2.7	1.7	1.4	3.5	3.7	12.3	5.9	7.6	14.0	14.7	15.3	17.2	1.0	10.9
STANDARD DEVIATION	1.4	2.9	1.0	0.8	8.6	4.3	70.9	9.4	16.4	33.5	29.3	26.0	22.4	0.0	31.3
MEDIAN LOS	2.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	1.0	2.0	5.0	5.5	10.5	1.0	3.0
FEMALES															
No. of CASES	3	4	12	9	26	24	27	44	32	37	34	95	57	1	405
% of CASES	0.7	1.0	3.0	2.2	6.4	5.9	6.7	10.9	7.9	9.1	8.4	23.5	14.1	0.2	100.0
No. of PATIENT DAYS	6	4	11	16	34	35	55	276	216	259	314	836	597	0	2,659
% of PATIENT DAYS	0.2	0.2	0.4	0.6	1.3	1.3	2.1	10.4	8.1	9.7	11.8	31.4	22.5	0.0	100.0
MEAN LOS	2.0	1.3	1.0	2.7	1.7	2.2	2.8	8.6	10.3	8.9	11.6	11.1	12.7	0.0	8.6
STANDARD DEVIATION	1.7	0.6	0.0	2.7	2.1	3.1	3.7	16.4	13.1	13.1	16.2	17.9	20.5	0.0	15.3
MEDIAN LOS	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0	3.0	5.0	5.0	4.0	0.0	3.0

Note: Cases with no LOS recorded were excluded from LOS calculations.

CAUSE OF INJURY HIGHLIGHTS - ALL CASES *

2002-2003 CASES

	ALL CASES WITH ECODES	MVC	FALLS	ASSAULT & HOMICIDE	SELF INFLICTED	OTHER INCIDENTS	ALL OTHER CAUSES
CASES							
Number	9,892	4,682	2,898	810	288	551	663
%	100.0	47.3	29.3	8.2	2.9	5.6	6.7
MALES							
Number	7,108	3,166	2,033	725	207	481	496
%	71.9	67.6	70.2	89.5	71.9	87.3	74.8
AGE(YEARS)							
MEAN(+ / - SD)	42.9(+ / - 23.0)	38.2(+ / - 20.6)	56.5(+ / - 24.1)	31.1(+ / - 15.2)	38.4(+ / - 16.2)	36.6(+ / - 21.0)	38.0(+ / - 20.1)
MEDIAN	41.0	35.0	61.0	29.0	38.0	37.0	39.0
No. <20 years	1,773	1,001	292	152	32	149	147
No. 65+ years	2,105	623	1,313	22	19	60	68
INJURY SEVERITY SCORE							
MEAN(+ / - SD)	24.1(+ / - 10.4)	26.2(+ / - 11.7)	21.6(+ / - 7.6)	21.8(+ / - 8.3)	26.8(+ / - 11.5)	22.3(+ / - 9.9)	23.4(+ / - 10.8)
MEDIAN	22.0	24.0	20.0	19.0	25.0	19.0	21.0
TYPE OF INJURY							
BLUNT - Number	9,286	4,670	2,896	534	196	468	522
- %	93.9	99.7	99.9	65.9	68.1	84.9	78.7
PENETRATING - Number	414	3	1	272	86	27	25
- %	4.2	0.1	0.0	33.6	29.9	4.9	3.8
BURNS - Number	190	9	1	4	6	56	114
- %	1.9	0.2	0.0	0.5	2.1	10.2	17.2
LENGTH OF STAY (DAYS)							
MEAN(+ / - SD)	17.1(+ / - 27.0)	18.3(+ / - 26.5)	16.3(+ / - 24.6)	12.8(+ / - 31.9)	23.6(+ / - 28.7)	15.9(+ / - 36.8)	16.5(+ / - 23.4)
MEDIAN	9.0	10.0	8.0	6.0	13.0	7.0	8.0

CAUSE OF INJURY HIGHLIGHTS - DEATHS *

2002-2003 CASES

	ALL CASES WITH ECODES	MVC	FALLS	ASSAULT & HOMICIDE	SELF INFLICTED	OTHER INCIDENTS	ALL OTHER CAUSES
DEATHS							
Number	1,369	570	433	116	110	46	94
%	100.0	41.6	31.6	8.5	8.0	3.4	6.9
MALES							
Number	963	381	290	103	89	41	59
%	70.3	66.8	67.0	88.8	80.9	89.1	62.8
AGE(YEARS)							
MEAN(+ / - SD)	51.7(+ / - 25.4)	45.8(+ / - 25.7)	69.4(+ / - 18.2)	33.4(+ / - 17.3)	40.5(+ / - 18.0)	48.6(+ / - 20.7)	43.1(+ / - 25.4)
MEDIAN	53.0	43.0	76.0	30.0	39.0	46.5	42.0
No. <20 years	181	114	7	18	17	3	22
No. 65+ years	518	168	298	6	11	13	22
INJURY SEVERITY SCORE							
MEAN(+ / - SD)	32.6(+ / - 14.0)	38.3(+ / - 14.3)	26.4(+ / - 9.0)	29.1(+ / - 12.8)	30.7(+ / - 12.5)	31.0(+ / - 17.5)	33.9(+ / - 17.5)
MEDIAN	26.0	36.0	25.0	26.0	26.0	25.0	26.0
TYPE OF INJURY							
BLUNT - Number	1,220	567	433	58	72	34	56
- %	89.1	99.5	100.0	50.0	65.5	73.9	59.6
PENETRATING - Number	104	0	0	58	35	5	6
- %	7.6	0.0	0.0	50.0	31.8	10.9	6.4
BURNS - Number	44	3	0	0	3	7	31
- %	3.2	0.5	0.0	0.0	2.7	15.2	33.0
LENGTH OF STAY (DAYS)							
MEAN(+ / - SD)	10.2(+ / - 27.4)	9.7(+ / - 22.2)	12.3(+ / - 21.8)	11.6(+ / - 71.5)	4.2(+ / - 8.1)	6.6(+ / - 9.3)	6.3(+ / - 11.9)
MEDIAN	3.0	2.0	5.0	1.0	1.0	3.0	2.5

Causes of Injury Summary:

- MVC: E810-825 - Falls: E880-888

- Assault & Homicide: E960-961 & E963-968 - Self Inflicted: E953-958

- Other Incidents: E916-928

*** Cases from British Columbia have been excluded because they do not collect External Cause of Injury codes(E Codes).**

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP

2002-2003 CASES

	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES	**96**	**123**	**214**	**370**	**970**	**992**	**1,332**	**1,408**	**1,276**	**1,003**	**841**	**922**	**342**	**3**	**9,892**	**100.0**
% of CASES	**1.0**	**1.2**	**2.2**	**3.7**	**9.8**	**10.0**	**13.5**	**14.2**	**12.9**	**10.1**	**8.5**	**9.3**	**3.5**	**0.0**	**100.0**	
E800-807 RAILWAY																
- PEDESTRIANS	0	0	0	0	6	1	3	1	3	0	0	1	2	0	17	0.2
- PEDAL CYCLISTS	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.0
- OCCUPANTS AND OTHER	0	0	0	0	1	0	0	0	2	1	0	0	0	0	4	0.0
SUBTOTAL	0	0	1	0	7	1	3	1	5	1	0	1	2	0	22	0.2
E810-819 MOTOR VEHICLE TRAFFIC																
- DRIVERS	0	1	0	10	208	257	308	312	283	174	119	88	16	0	1,776	18.0
- PASSENGERS	8	16	35	63	212	131	114	92	76	73	45	68	20	0	953	9.6
- MOTORCYCLE DRIVERS	0	0	0	6	23	55	85	68	58	35	4	0	0	0	334	3.4
- MOTORCYCLE PASSENGERS	0	0	1	2	2	6	3	5	3	1	1	0	0	0	24	0.2
- PEDESTRIANS	0	4	38	56	57	56	62	84	79	85	84	65	31	0	701	7.1
- PEDAL CYCLISTS	0	1	15	23	19	12	17	23	15	17	10	8	3	0	163	1.6
- OTHER	0	1	1	6	18	6	16	8	9	10	9	10	1	0	95	1.0
SUBTOTAL	8	23	90	166	539	523	605	592	523	395	272	239	71	0	4,046	40.9
E820-825 MOTOR VEHICLE NON TRAFFIC																
- DRIVERS	0	0	4	24	56	52	71	57	43	26	14	4	2	0	353	3.6
- PASSENGERS	0	2	5	6	17	7	10	5	5	2	1	2	0	0	62	0.6
- MOTORCYCLE DRIVERS	0	0	1	9	14	13	31	10	4	2	1	1	0	0	86	0.9
- MOTORCYCLE PASSENGERS	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.0
- PEDESTRIANS	1	2	4	1	6	5	8	8	8	7	3	5	1	0	59	0.6
- PEDAL CYCLISTS	0	1	1	2	3	0	0	0	0	0	0	0	0	0	7	0.1
- OTHER	0	0	2	3	11	5	7	18	8	7	3	3	1	0	68	0.7
SUBTOTAL	1	5	17	45	107	82	127	98	69	44	22	15	4	0	636	6.4

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**96**	**123**	**214**	**370**	**970**	**992**	**1,332**	**1,408**	**1,276**	**1,003**	**841**	**922**	**342**	**3**	**9,892**	**100.0**
% of CASES		**1.0**	**1.2**	**2.2**	**3.7**	**9.8**	**10.0**	**13.5**	**14.2**	**12.9**	**10.1**	**8.5**	**9.3**	**3.5**	**0.0**	**100.0**	
E826	**PEDAL CYCLE**																
	- PEDESTRIANS	0	0	1	0	0	0	0	0	1	3	2	1	1	0	9	0.1
	- PEDAL CYCLISTS	0	1	13	25	21	25	18	31	32	16	10	4	0	0	196	2.0
	- OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	SUBTOTAL	0	1	14	25	21	25	18	31	33	19	12	5	1	0	205	2.1
E827-829	**OTHER ROAD VEHICLE**																
	- PEDESTRIANS	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	0.0
	- PEDAL CYCLISTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	- OTHER	0	0	2	3	9	2	8	15	27	13	9	0	0	0	88	0.9
	SUBTOTAL	0	0	2	3	10	2	8	15	28	13	9	0	0	0	90	0.9
E830-838	**WATER TRANSPORT**	0	0	1	1	2	5	8	8	3	8	0	0	0	0	36	0.4
E840-845	**AIR AND SPACE TRANSPORT**																
	- OCCUPANTS	0	0	0	0	0	1	6	3	1	1	1	1	0	0	14	0.1
	- PARACHUTIST	0	0	0	0	0	0	1	4	1	0	0	0	0	0	6	0.1
	- OTHER	0	0	0	0	0	1	0	0	1	2	1	0	0	0	5	0.1
	SUBTOTAL	0	0	0	0	0	2	7	7	3	3	2	1	0	0	25	0.3
E846-848	**VEHICLE INCIDENTS NOT ELSEWHERE CLASSFIED**	0	1	0	2	4	0	3	3	3	1	0	0	0	0	17	0.2
E880-888	**UNINTENTIONAL FALLS**	44	49	50	64	85	109	166	289	353	376	449	609	255	0	2,898	29.3

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**96**	**123**	**214**	**370**	**970**	**992**	**1,332**	**1,408**	**1,276**	**1,003**	**841**	**922**	**342**	**3**	**9,892**	**100.0**
% of CASES		**1.0**	**1.2**	**2.2**	**3.7**	**9.8**	**10.0**	**13.5**	**14.2**	**12.9**	**10.1**	**8.5**	**9.3**	**3.5**	**0.0**	**100.0**	
E890-899	**FIRE AND FLAMES**	0	0	3	4	5	6	22	23	18	12	13	10	2	0	118	1.2
E900-902 & E906-909	**NATURAL AND ENVIRONMENTAL FACTORS**	1	7	1	3	3	1	10	5	13	4	2	2	0	0	52	0.5
E910	**DROWNING**	1	6	2	2	2	1	0	2	1	1	0	0	0	1	19	0.2
E913	**SUFFOCATION**	0	1	0	0	0	0	1	0	1	0	0	0	0	0	3	0.0
E914-915	**FOREIGN BODIES (EXCLUDING CHOKING)**	1	0	0	2	0	0	0	1	0	0	2	1	0	0	7	0.1
E916-928	**OTHER INCIDENTS**	5	17	31	47	49	34	80	94	75	59	34	23	3	0	551	5.6
E953-958	**SUICIDE & SELF INFLICTED INJURY (EXCL.POISONINGS)**	0	0	0	3	29	36	61	58	52	29	11	6	2	1	288	2.9
E960-961 & E963-968	**HOMICIDE AND INJURY PURPOSELY INFLICTED**	33	12	1	3	103	158	196	164	84	33	11	9	2	1	810	8.2
E970-976 & E978	**LEGAL INTERVENTION**	0	0	0	0	2	1	4	1	1	1	0	0	0	0	10	0.1

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**96**	**123**	**214**	**370**	**970**	**992**	**1,332**	**1,408**	**1,276**	**1,003**	**841**	**922**	**342**	**3**	**9,892**	**100.0**
% of CASES		**1.0**	**1.2**	**2.2**	**3.7**	**9.8**	**10.0**	**13.5**	**14.2**	**12.9**	**10.1**	**8.5**	**9.3**	**3.5**	**0.0**	**100.0**	
E983-988	**UNDETERMINED WHETHER UNINTENTIONALLLY OR PURPOSELY INFLICTED**	2	1	0	0	2	5	11	8	7	2	2	1	0	0	41	0.4
E990-998	**OPERATIONS OF WAR**	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0.0
	ALL OTHER*	0	0	1	0	0	1	1	7	4	2	0	0	0	0	16	0.2

*** Cases that fall outside the E code inclusion list but are considered trauma.**

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP FOR DEATHS

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**6**	**15**	**20**	**30**	**110**	**103**	**147**	**141**	**131**	**145**	**153**	**235**	**130**	**3**	**1,369**	**100.0**
% of CASES		**0.4**	**1.1**	**1.5**	**2.2**	**8.0**	**7.5**	**10.7**	**10.3**	**9.6**	**10.6**	**11.2**	**17.2**	**9.5**	**0.2**	**100.0**	
E800-807	**RAILWAY**																
	- PEDESTRIANS	0	0	0	0	1	0	0	0	0	0	0	0	2	0	3	0.2
	- PEDAL CYCLISTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	- OCCUPANTS AND OTHER	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.1
	SUBTOTAL	0	0	0	0	1	0	0	0	0	1	0	0	2	0	4	0.3
E810-819	**MOTOR VEHICLE TRAFFIC**																
	- DRIVERS	0	0	0	0	27	17	18	22	25	20	11	20	6	0	166	12.1
	- PASSENGERS	2	2	10	7	20	19	7	6	3	8	9	18	9	0	120	8.8
	- MOTORCYCLE DRIVERS	0	0	0	2	4	6	13	13	4	3	0	0	0	0	45	3.3
	- MOTORCYCLE PASSENGERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	- PEDESTRIANS	0	2	4	6	9	8	9	14	6	19	23	30	19	0	149	10.9
	- PEDAL CYCLISTS	0	0	0	3	3	3	2	1	2	2	2	2	1	0	21	1.5
	- OTHER	0	1	0	0	4	1	6	1	1	2	1	3	0	0	20	1.5
	SUBTOTAL	2	5	14	18	67	54	55	57	41	54	46	73	35	0	521	38.1
E820-825	**MOTOR VEHICLE NON TRAFFIC**																
	- DRIVERS	0	0	1	0	3	5	4	0	1	2	3	1	2	0	22	1.6
	- PASSENGERS	0	0	1	0	0	0	1	0	0	0	1	1	0	0	4	0.3
	- MOTORCYCLE DRIVERS	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3	0.2
	- MOTORCYCLE PASSENGERS	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.1
	- PEDESTRIANS	0	0	0	0	2	1	0	1	0	1	2	3	0	0	10	0.7
	- PEDAL CYCLISTS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1
	- OTHER	0	0	0	0	0	1	1	2	1	2	0	0	1	0	8	0.6
	SUBTOTAL	0	0	2	1	5	8	8	3	3	5	6	5	3	0	49	3.6

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP FOR DEATHS

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**6**	**15**	**20**	**30**	**110**	**103**	**147**	**141**	**131**	**145**	**153**	**235**	**130**	**3**	**1,369**	**100.0**
% of CASES		**0.4**	**1.1**	**1.5**	**2.2**	**8.0**	**7.5**	**10.7**	**10.3**	**9.6**	**10.6**	**11.2**	**17.2**	**9.5**	**0.2**	**100.0**	
E826	**PEDAL CYCLE**																
	- PEDESTRIANS	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3	0.2
	- PEDAL CYCLISTS	0	0	0	1	0	0	0	1	1	2	0	1	0	0	6	0.4
	- OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	SUBTOTAL	0	0	0	1	0	0	0	1	2	3	1	1	0	0	9	0.7
E827-829	**OTHER ROAD VEHICLE**																
	- PEDESTRIANS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	- PEDAL CYCLISTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	- OTHER	0	0	0	0	1	0	1	0	0	2	1	0	0	0	5	0.4
	SUBTOTAL	0	0	0	0	1	0	1	0	0	2	1	0	0	0	5	0.4
E830-838	**WATER TRANSPORT**	0	0	1	1	0	0	1	0	0	0	0	0	0	0	3	0.2
E840-845	**AIR AND SPACE TRANSPORT**																
	- OCCUPANTS	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.1
	- PARACHUTIST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	- OTHER	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.1
	SUBTOTAL	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0.1
E846-848	**VEHICLE INCIDENTS NOT ELSEWHERE CLASSFIED**	0	0	0	0	1	0	1	0	1	0	0	0	0	0	3	0.2
E880-888	**UNINTENTIONAL FALLS**	0	0	1	3	3	5	11	29	36	47	74	140	84	0	433	31.6

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP FOR DEATHS

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**6**	**15**	**20**	**30**	**110**	**103**	**147**	**141**	**131**	**145**	**153**	**235**	**130**	**3**	**1,369**	**100.0**
% of CASES		**0.4**	**1.1**	**1.5**	**2.2**	**8.0**	**7.5**	**10.7**	**10.3**	**9.6**	**10.6**	**11.2**	**17.2**	**9.5**	**0.2**	**100.0**	
E890-899	**FIRE AND FLAMES**	0	0	0	1	0	2	5	5	5	2	6	6	2	0	34	2.5
E900-902 & E906-909	**NATURAL AND ENVIRONMENTAL FACTORS**	0	0	0	0	0	0	2	0	2	0	0	1	0	0	5	0.4
E910	**DROWNING**	1	5	1	2	2	0	0	0	0	1	0	0	0	1	13	0.9
E913	**SUFFOCATION**	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.1
E914-915	**FOREIGN BODIES (EXCLUDING CHOKING)**	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.1
E916-928	**OTHER INCIDENTS**	1	0	0	1	1	1	9	6	8	6	7	5	1	0	46	3.4
E953-958	**SUICIDE & SELF INFLICTED INJURY (EXCL.POISONINGS)**	0	0	0	2	15	9	18	23	14	17	7	2	2	1	110	8.0
E960-961 & E963-968	**HOMICIDE AND INJURY PURPOSELY INFLICTED**	2	4	0	0	12	24	30	15	17	5	3	2	1	1	116	8.5
E970-976 & E978	**LEGAL INTERVENTION**	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.1

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP FOR DEATHS

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**6**	**15**	**20**	**30**	**110**	**103**	**147**	**141**	**131**	**145**	**153**	**235**	**130**	**3**	**1,369**	**100.0**
% of CASES		**0.4**	**1.1**	**1.5**	**2.2**	**8.0**	**7.5**	**10.7**	**10.3**	**9.6**	**10.6**	**11.2**	**17.2**	**9.5**	**0.2**	**100.0**	
E983-988	**UNDETERMINED WHETHER UNINTENTIONALLLY OR PURPOSELY INFLICTED**	0	1	0	0	2	0	3	2	2	0	1	0	0	0	11	0.8
E990-998	**OPERATIONS OF WAR**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	ALL OTHER*	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2	0.1

*** Cases that fall outside the E code inclusion list but are considered trauma.**

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP FOR FALLS (E880-E888)

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**44**	**49**	**50**	**64**	**85**	**109**	**166**	**289**	**353**	**376**	**449**	**609**	**255**	**0**	**2,898**	**100.0**
% of CASES		**1.5**	**1.7**	**1.7**	**2.2**	**2.9**	**3.8**	**5.7**	**10.0**	**12.2**	**13.0**	**15.5**	**21.0**	**8.8**	**0.0**	**100.0**	
E880	**ON OR FROM STAIRS/STEPS**	6	12	5	4	5	10	15	48	70	86	102	144	66	0	573	19.8
E881	**ON/FROM LADDER/SCAFFOLD**																
	- LADDER	0	1	3	2	2	6	8	26	43	49	45	17	7	0	209	7.2
	- SCAFFOLD	0	0	0	0	2	4	11	14	12	12	5	1	0	0	61	2.1
	SUBTOTAL	0	1	3	2	4	10	19	40	55	61	50	18	7	0	270	9.3
E882	**FROM/OUT OF BUILDING OR OTHER STRUCTURE**	0	9	10	4	10	38	37	77	58	37	20	15	1	0	316	10.9
E883	**INTO HOLE OR OTHER SURFACE OPENING**																
	- DIVING/JUMPING INTO WATER	0	0	2	1	5	5	4	10	2	1	1	0	0	0	31	1.1
	- OTHER HOLE OR OPENING	11	10	7	6	3	14	15	16	17	15	11	4	1	0	130	4.5
	SUBTOTAL	11	10	9	7	8	19	19	26	19	16	12	4	1	0	161	5.6
E884	**FROM ONE LEVEL TO ANOTHER**																
	- PLAYGROUND EQUIPMENT	0	3	3	3	2	0	0	0	0	0	0	0	1	0	12	0.4
	- FROM CLIFF	0	0	0	4	4	4	7	3	5	1	3	0	0	0	31	1.1
	- FROM CHAIR	4	3	3	0	0	0	2	3	4	6	5	13	8	0	51	1.8
	- FROM WHEELCHAIR	1	0	0	0	0	0	1	0	0	0	1	6	6	0	15	0.5
	- FROM BED	1	1	4	2	0	0	1	3	2	5	7	17	8	0	51	1.8
	- FROM OTHER FURNITURE	2	4	0	0	1	0	0	3	0	1	0	3	1	0	15	0.5
	- FROM COMMODE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	- OTHER FALL	8	1	1	9	6	6	11	14	21	8	8	3	2	0	98	3.4
	SUBTOTAL	16	12	11	18	13	10	22	26	32	21	24	42	26	0	273	9.5

EXTERNAL CAUSES OF INJURY (E CODES) BY AGE GROUP FOR FALLS (E880-E888)

2002-2003 CASES

		<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%
No. of CASES		**44**	**49**	**50**	**64**	**85**	**109**	**166**	**289**	**353**	**376**	**449**	**609**	**255**	**0**	**2,898**	**100.0**
% of CASES		**1.5**	**1.7**	**1.7**	**2.2**	**2.9**	**3.8**	**5.7**	**10.0**	**12.2**	**13.0**	**15.5**	**21.0**	**8.8**	**0.0**	**100.0**	
E885	**SLIPPING, TRIPPING, STUMBLING**	0	1	7	12	15	10	12	25	31	49	74	121	49	0	406	14.0
E886	**COLLISIONS, PUSHING, SHOVING BY OR WITH OTHER PERSON**	0	0	3	2	1	1	4	1	0	0	1	1	0	0	14	0.5
E887-888	**ALL OTHER FALLS**	11	4	2	15	29	11	38	46	88	106	166	264	105	0	885	30.5

INJURY(N CODE) TYPE BY AGE GROUP FOR ALL INJURIES

2002-2003 CASES

TOTAL*	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk	Total	%**
	167	**218**	**472**	**836**	**2,255**	**2,295**	**2,930**	**2,999**	**2,662**	**1,993**	**1,552**	**1,520**	**534**	**8**	**20,441**	
% of TOTAL	**2.0**	**2.6**	**5.6**	**10.0**	**26.9**	**27.4**	**34.9**	**35.7**	**31.7**	**23.8**	**2.0**	**18.1**	**6.4**	**0.1**		
SUPERFICIAL	48	50	120	200	563	584	720	709	651	488	365	358	131	2	4,989	59.5
ORTHOPEDICS	21	31	97	202	578	605	787	850	762	530	393	346	138	2	5,342	63.7
BURNS	2	9	4	4	19	7	35	42	16	16	13	10	1	0	178	2.1
HEAD	88	87	158	251	566	541	602	673	604	544	522	601	205	1	5,443	64.9
SPINAL CORD	0	3	4	9	42	56	78	85	61	51	26	22	7	0	444	5.3
INTERNAL	4	31	71	135	382	386	513	491	422	281	176	144	44	1	3,081	36.7
BLOOD VESSELS	1	1	2	11	31	49	74	63	51	23	19	12	3	1	341	4.1
NERVES	1	1	5	11	41	42	62	51	51	37	13	6	1	0	322	3.8
OTHER	2	5	11	13	33	25	59	35	44	23	25	21	4	1	301	3.6

Note: If an admission has injuries which fall into several of the injury types above, each type will be counted once. Otherwise, if a case has several injuries which all fall into one type then the case will only be counted once.
*** 'Total' refers to the total number of injury types. Cases from British Columbia are excluded because injury diagnosis codes were not available.**

**** The denominator for the percentage calculations is the total number of cases for the year excluding British Columbia (n=8,390).**

DENOMINATORS BY PROVINCE/TERRITORY

2002-2003 DATA

DENOMINATORS+	PROVINCE/TERRITORY											Total
	NL	PE	NS	NB*	QC	ON	MB*	SK	AB	BC	Terr	
No. OF CASES	N/A	N/A	403	74	1,783	3,941	304	N/A	1,885	1,502	N/A	9,892
No. OF CASES WITH E CODE	N/A	N/A	403	74	1,783	3,941	304	N/A	1,885	1,502	N/A	9,892
No. OF CASES DISCHARGED ALIVE	N/A	N/A	337	62	1,496	3,391	277	N/A	1,661	1,299	N/A	8,523
No. OF DEATHS**	N/A	N/A	66	12	287	550	27	N/A	224	203	N/A	1,369
No.WHO DIED IN EMERGENCY ROOM	N/A	N/A	16	0	95	115	N/A	N/A	77	68	N/A	371
No.OF PEDIATRIC CASES(<18 YEARS OF AGE)	N/A	N/A	55	11	245	567	42	N/A	270	94	N/A	1,284
No.OF CASES(>10 YEARS OF AGE)***	N/A	N/A	386	71	1,686	3,695	292	N/A	1,778	1,493	N/A	9,401
No.OF CASES<20 (YEARS OF AGE)	N/A	N/A	72	21	318	743	61	N/A	385	173	N/A	1,773
No.OF CASES 20-64 (YEARS OF AGE)	N/A	N/A	211	44	1,054	2,298	183	N/A	1,211	1,010	N/A	6,011
No.OF CASES >64 (YEARS OF AGE)	N/A	N/A	120	9	411	897	60	N/A	289	319	N/A	2,105

+: Three cases had missing age information.

Note: This table provides denominators to allow calculation of percentages.

*** Important note: No provincial trauma registry in NB or MB. In each, data are from one facility only.**

**** Deaths refer to inhospital deaths and cases who died in emergency. Deaths occurring at the scene are excluded.**

***** Number of cases >10 years of age can be used for B.A.C calculation.**

HIGHLIGHTS BY PROVINCE/TERRITORY

Important note: Data from NB and MB from one facility only

DEMOGRAPHICS		PROVINCE/TERRITORY											Total
		NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	Terr	
TOTAL NUMBER OF CASES		N/A	N/A	403	74	1,783	3,941	304	N/A	1,885	1,502	N/A	9,892
DIRECT ADMISSIONS	NUMBER	N/A	N/A	212	38	847	1,956	94	N/A	N/A	851	N/A	3,998
	%	N/A	N/A	52.6	51.4	47.5	49.6	30.9	N/A	N/A	56.7	N/A	49.9
MALES	NUMBER	N/A	N/A	305	62	1,262	2,794	219	N/A	1,376	1,090	N/A	7,108
	%	N/A	N/A	75.7	83.8	70.8	70.9	72.0	N/A	73.0	72.6	N/A	71.9
AGE(YEARS)	MEAN	N/A	N/A	47.7	36.5	43.7	43.2	42.3	N/A	38.9	45.4	N/A	42.9
	STANDARD DEVIATION	N/A	N/A	24.6	19.8	23.3	23.6	22.9	N/A	21.7	21.6	N/A	23.0
	MEDIAN	N/A	N/A	47.0	33.5	42.0	41.0	40.6	N/A	36.0	43.0	N/A	41.0
<20 YEARS OF AGE	NUMBER	N/A	N/A	72	21	318	743	61	N/A	385	173	N/A	1,773
	%	N/A	N/A	17.9	28.4	17.8	18.9	20.1	N/A	20.4	11.5	N/A	17.9
>=65 YEARS OR AGE	NUMBER	N/A	N/A	120	9	411	897	60	N/A	289	319	N/A	2,105
	%	N/A	N/A	29.8	12.2	23.1	22.8	19.7	N/A	15.3	21.2	N/A	21.3

HIGHLIGHTS BY PROVINCE/TERRITORY

Important note: Data from NB and MB from one facility only

INJURY SEVERITY SCORE		PROVINCE/TERRITORY											Total
		NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	Terr	
ALL CASES	MEAN	N/A	N/A	21.7	22.6	24.8	24.6	22.5	N/A	22.9	24.8	N/A	24.1
	STANDARD DEVIATION	N/A	N/A	9.8	8.0	10.5	10.7	9.1	N/A	9.7	10.9	N/A	10.4
	MEDIAN	N/A	N/A	18.0	21.0	24.0	22.0	20.0	N/A	20.0	24.0	N/A	22.0
SURVIVORS	MEAN	N/A	N/A	20.9	21.4	23.1	23.1	21.3	N/A	21.7	23.5	N/A	22.8
	STANDARD DEVIATION	N/A	N/A	9.1	7.3	9.0	9.0	7.2	N/A	8.7	9.8	N/A	9.0
	MEDIAN	N/A	N/A	17.0	18.0	21.0	21.0	18.0	N/A	19.0	21.0	N/A	20.0
DEATHS	MEAN	N/A	N/A	25.9	28.5	33.3	33.4	33.9	N/A	31.4	32.9	N/A	32.6
	STANDARD DEVIATION	N/A	N/A	12.1	8.8	13.2	15.0	16.0	N/A	12.4	13.9	N/A	14.0
	MEDIAN	N/A	N/A	25.0	26.5	29.0	27.0	29.0	N/A	26.0	27.0	N/A	26.0

HIGHLIGHTS BY PROVINCE/TERRITORY

Important note: Data from NB and MB from one facility only

TYPE OF INJURY		PROVINCE/TERRITORY											Total
		NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	Terr	
BLUNT	NUMBER	N/A	N/A	378	69	1,764	3,610	291	N/A	1,771	1,403	N/A	9,286
	%	N/A	N/A	93.8	93.2	98.9	91.6	95.7	N/A	94.0	93.4	N/A	93.9
PENETRATING	NUMBER	N/A	N/A	14	4	17	228	9	N/A	84	58	N/A	414
	%	N/A	N/A	3.5	5.4	1.0	5.8	3.0	N/A	4.5	3.9	N/A	4.2
BURNS	NUMBER	N/A	N/A	11	1	2	101	4	N/A	30	41	N/A	190
	%	N/A	N/A	2.7	1.4	0.1	2.6	1.3	N/A	1.6	2.7	N/A	1.9
WORK RELATED	NUMBER	N/A	N/A	23	6	117	216	18	N/A	185	112	N/A	677
	%	N/A	N/A	5.7	8.1	6.6	5.5	5.9	N/A	9.8	7.5	N/A	6.8
SPORTS/RECREATIONAL INJURIES	NUMBER	N/A	N/A	48	13	N/A	422	33	N/A	275	197	N/A	988
	%	N/A	N/A	11.9	17.6	N/A	10.7	10.9	N/A	14.6	13.1	N/A	12.2

HIGHLIGHTS BY PROVINCE/TERRITORY

Important note: Data from NB and MB from one facility only

PLACE OF INJURY*		PROVINCE/TERRITORY											Total
		NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	Terr	
HOME	NUMBER	N/A	N/A	113	6	306	837	64	N/A	358	329	N/A	2,013
	%	N/A	N/A	28.0	8.1	17.2	21.2	21.1	N/A	19.0	21.9	N/A	20.3
INDUSTRIAL	NUMBER	N/A	N/A	12	5	81	177	10	N/A	84	0	N/A	369
	%	N/A	N/A	3.0	6.8	4.5	4.5	3.3	N/A	4.5	0.0	N/A	3.7
RECREATION/SPORT	NUMBER	N/A	N/A	12	5	93	145	18	N/A	100	194	N/A	567
	%	N/A	N/A	3.0	6.8	5.2	3.7	5.9	N/A	5.3	12.9	N/A	5.7
STREET/HIGHWAY	NUMBER	N/A	N/A	175	49	819	1,877	152	N/A	940	692	N/A	4,704
	%	N/A	N/A	43.4	66.2	45.9	47.6	50.0	N/A	49.9	46.1	N/A	47.6
OTHER	NUMBER	N/A	N/A	91	9	484	888	58	N/A	403	287	N/A	2,220
	%	N/A	N/A	22.6	12.2	27.1	22.5	19.1	N/A	21.4	19.1	N/A	22.4

HIGHLIGHTS BY PROVINCE/TERRITORY

Important note: Data from NB and MB from one facility only

EXTERNAL CAUSE OF INJURY		PROVINCE/TERRITORY											Total
		NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	Terr	
UNINTENTIONAL FALLS **E880-E888**	NUMBER	N/A	N/A	158	10	540	1,174	84	N/A	483	449	N/A	2,898
	%	N/A	N/A	39.2	13.5	30.3	29.8	27.6	N/A	25.6	29.9	N/A	29.3
MOTOR VEHICLE TRAFFIC **E810-E819**	NUMBER	N/A	N/A	156	40	737	1,512	125	N/A	828	648	N/A	4,046
	%	N/A	N/A	38.7	54.1	41.3	38.4	41.1	N/A	43.9	43.1	N/A	40.9
MOTOR VEHICLE NON TRAFFIC **E820-E825**	NUMBER	N/A	N/A	31	11	98	315	18	N/A	113	50	N/A	636
	%	N/A	N/A	7.7	14.9	5.5	8.0	5.9	N/A	6.0	3.3	N/A	6.4
CYCLING **E800-E807(.3),E810-E825(.6),E826,E827-E829(.1)**	NUMBER	N/A	N/A	7	5	92	136	10	N/A	54	72	N/A	376
	%	N/A	N/A	1.7	6.8	5.2	3.5	3.3	N/A	2.9	4.8	N/A	3.8
HOMICIDE & ASSAULT **E960,E961,E963-E968**	NUMBER	N/A	N/A	23	5	111	321	38	N/A	184	128	N/A	810
	%	N/A	N/A	5.7	6.8	6.2	8.1	12.5	N/A	9.8	8.5	N/A	8.2
SUICIDE & SELF INFLICTED INJURY(Excl.Poisoning) **E953-E958**	NUMBER	N/A	N/A	4	0	80	117	4	N/A	51	32	N/A	288
	%	N/A	N/A	1.0	0.0	4.5	3.0	1.3	N/A	2.7	2.1	N/A	2.9

HIGHLIGHTS BY PROVINCE/TERRITORY

Important note: Data from NB and MB from one facility only

PARTICIPATING HOSPITAL CARE		PROVINCE/TERRITORY											Total
		NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	Terr	
LENGTH OF HOSPITAL STAY(DAYS)	ALL CASES MEAN	N/A	N/A	17.9	18.2	17.3	17.1	26.3	N/A	14.1	18.5	N/A	17.1
	ALL CASES S.D.	N/A	N/A	34.5	15.0	19.3	29.4	48.4	N/A	23.2	24.0	N/A	27.0
	ALL CASES MEDIAN	N/A	N/A	8.0	15.0	11.0	8.0	9.0	N/A	7.0	10.0	N/A	9.0
	SURVIVORS MEAN	N/A	N/A	18.7	20.1	18.0	18.0	27.1	N/A	14.7	19.5	N/A	17.9
	SURVIVORS S.D.	N/A	N/A	34.8	15.2	19.1	28.7	48.9	N/A	23.4	24.5	N/A	26.9
	SURVIVORS MEDIAN	N/A	N/A	9.0	17.5	12.0	9.0	10.0	N/A	8.0	11.0	N/A	10.0
	DEATHS MEAN	N/A	N/A	13.5	8.7	11.1	9.9	18.3	N/A	7.5	9.5	N/A	10.2
	DEATHS S.D.	N/A	N/A	32.6	10.3	19.5	33.2	41.9	N/A	19.0	16.2	N/A	27.4
	DEATHS MEDIAN	N/A	N/A	1.0	4.0	3.0	2.0	3.0	N/A	3.0	3.0	N/A	3.0
CASES WITH VENTILATION DAYS	NUMBER	N/A	N/A	137	35	684	1,398	N/A	N/A	613	532	N/A	3,399
	%	N/A	N/A	34.0	47.3	38.4	35.5	N/A	N/A	32.5	35.4	N/A	35.5
	MEAN(Vent.Days)	N/A	N/A	3.8	6.5	7.7	6.4	N/A	N/A	6.7	9.4	N/A	7.1
	S.D(Vent.Days)	N/A	N/A	4.4	5.5	12.6	24.3	N/A	N/A	10.8	12.9	N/A	18.0
	MEDIAN(Vent.Days)	N/A	N/A	2.0	6.0	3.0	2.0	N/A	N/A	3.0	5.0	N/A	3.0
POSITIVE B.A.C(>=17.0 mmol/L)	NUMBER	N/A	N/A	47	11	N/A **	452	N/A +	N/A	301	169	N/A	980
	%	N/A	N/A	11.7	14.9	N/A **	11.5	N/A +	N/A	16.0	11.3	N/A	12.6

*** Place of injury is documented for all cases using ICD categories. There are 19 cases that do not have a documented place of injury.**

**** BAC information was provided but lacked the specificity required to establish a positive BAC. 219 (12.3%) cases in QC had alcohol present (any concentration).**

+ BAC information from MB not available.

INJURY CASE SUMMARY BY EXTERNAL CAUSES OF INJURY (E CODES),2002-2003 CASES

		CASES WITH E CODE		MEAN			STANDARD DEVIATION LOS	MEDIAN LOS	DEATHS	
		No.	%	AGE	ISS	LOS			No.	%
TOTAL		**9,892**	**100.0**	**42.9**	**24.1**	**17.1**	**27**	**9.0**	**1369**	**100.0**
E800-807	**RAILWAY**									
	- PEDESTRIANS	17	0.2	38.1	29.7	25.8	41.3	13.0	3	0.2
	- PEDAL CYCLISTS	1	0.0	9.8	34.0	27.0	0.0	27.0	0	0.0
	- OTHER	4	0.0	45.3	25.3	20.8	18.8	11.0	1	0.1
	- SUBTOTAL	22	0.2	38.1	29.1	24.9	36.8	13.0	4	0.3
E810-819	**MOTOR VEHICLE TRAFFIC**									
	- DRIVERS	1,776	18.0	40.4	26.2	18.8	27.8	11.0	166	12.1
	- PASSENGERS	953	9.6	34.6	26.8	18.0	27.6	10.0	120	8.8
	- MOTORCYCLE DRIVERS	334	3.4	36.0	27.2	18.2	22.2	11.0	45	3.3
	- MOTORCYCLE PASSENGERS	24	0.2	32.0	28.4	17.8	18.2	10.5	0	0.0
	- PEDAL CYCLISTS	163	1.6	34.8	25.8	17.7	31.4	8.0	21	1.5
	- PEDESTRIANS	701	7.1	44.3	27.2	21.2	29.0	11.0	149	10.9
	- OTHER	95	1.0	40.4	26.8	14.9	16.8	8.5	20	1.5
	- SUBTOTAL	4,046	40.9	39.1	26.6	18.8	27.4	11.0	521	38.1
E820-825	**MOTOR VEHICLE NON TRAFFIC**									
	- DRIVERS	353	3.6	33.6	24.1	15.1	18.6	9.0	22	1.6
	- PASSENGERS	62	0.6	26.6	22.3	13.3	16.1	8.0	4	0.3
	- MOTORCYCLE DRIVERS	86	0.9	27.8	22.0	12.5	13.1	9.0	3	0.2
	- MOTORCYCLE PASSENGERS	1	0.0	52.0	35.0	31.0	0.0	31.0	1	0.1
	- PEDAL CYCLISTS	7	0.1	11.1	20.4	10.8	9.3	9.0	1	0.1
	- PEDESTRIANS	59	0.6	39.2	27.0	15.3	16.7	11.0	10	0.7
	- OTHER	68	0.7	38.3	24.8	16.8	31.5	7.0	8	0.6
	- SUBTOTAL	636	6.5	32.9	23.9	14.8	19.4	9.0	49	3.6

INJURY CASE SUMMARY BY EXTERNAL CAUSES OF INJURY (E CODES),2002-2003 CASES

		CASES WITH E CODE		MEAN			STANDARD DEVIATION LOS	MEDIAN LOS	DEATHS	
		No.	%	AGE	ISS	LOS			No.	
TOTAL		**9,892**	**100.0**	**42.9**	**24.1**	**17.1**	**27**	**9.0**	**1369**	**100.0**
E826	**PEDAL CYCLE**									
	- PEDESTRIANS	9	0.1	60.2	22.9	12.6	21.2	5.0	3	0.2
	- PEDAL CYCLISTS	196	2.0	33.8	21.1	11.1	13.7	6.0	6	0.4
	- OTHER	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
	- SUBTOTAL	205	2.1	35.0	21.2	11.1	14.0	6.0	9	0.6
E827-829	**OTHER ROAD VEHICLE**									
	- PEDESTRIANS	2	0.0	35.5	29.5	31.0	31.1	31.0	0	0.0
	- PEDAL CYCLISTS	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
	- OTHER	88	0.9	43.6	21.8	14.5	21.3	6.0	5	0.4
	- SUBTOTAL	90	0.9	43.4	21.9	14.8	21.5	6.0	5	0.4
E830-838	**WATER TRANSPORT**	36	0.4	37.4	23.2	17.7	25.3	8.0	3	0.2
E840-845	**AIR AND SPACE TRANSPORT**									
	- OCCUPANTS	14	0.1	40.6	23.9	19.7	19.8	11.0	1	0.1
	- PARACHUTIST	6	0.1	39.7	20.0	17.5	16.8	12.5	0	0.0
	- OTHER	5	0.1	53.0	24.0	8.5	5.3	9.0	1	0.1
	- SUBTOTAL	25	0.3	42.8	23.0	17.2	17.3	12.0	2	0.2
E846-848	**VEHICLE INCIDENTS NOT ELSEWHERE CLASSIFIED**	17	0.2	30.2	26.6	11.4	9.3	9.0	3	0.2
E880-888	**UNINTENTIONAL FALLS**	2,898	29.3	56.5	21.6	16.3	24.6	8.0	433	31.6
E890-899	**FIRE AND FLAMES**	118	1.2	44.9	27.4	29.8	31.9	21.0	34	2.5
E900-902 & E906-909	**NATURAL AND & ENVIRONMENTAL FACTORS**	52	0.5	35.2	20.1	8.3	7.8	7.0	5	0.4
E910	**DROWNING**	19	0.2	16.5	22.1	7.0	8.7	2.0	13	0.9
E913	**SUFFOCATION**	3	0.0	28.3	23.7	5.5	2.1	5.5	1	0.1
E914-915	**FOREIGN BODIES (EXCLUDING CHOKING)**	7	0.1	41.1	18.9	14.9	7.3	13.0	1	0.1

INJURY CASE SUMMARY BY EXTERNAL CAUSES OF INJURY (E CODES),2002-2003 CASES

		CASES WITH E CODE		MEAN			STANDARD DEVIATION LOS	MEDIAN LOS	DEATHS	
		No.	%	AGE	ISS	LOS			No.	
TOTAL		**9,892**	**100.0**	**42.9**	**24.1**	**17.1**	**27**	**9.0**	**1369**	**100.0**
E916-928	**OTHER INCIDENTS**	551	5.6	36.6	22.3	15.9	36.8	7.0	46	3.4
E953-958	**SUICIDE & SELF INFLICTED INJURY(EXCL.POISONINGS)**	288	2.9	38.4	26.8	23.6	28.7	13.0	110	8.0
E960-961 & E963-968	**HOMICIDE AND INJURY PURPOSELY INFLICTED**	810	8.2	31.1	21.8	12.8	31.9	6.0	116	8.5
E970-976 & E978	**LEGAL INTERVENTION**	10	0.1	33.2	30.3	23.6	31.1	11.0	1	0.1
EE983-988	**UNDETERMINED WHETHER UNINTENTIONALLY OR PURPOSELY INFLICTED**	41	0.4	35.7	28.1	24.0	37.2	8.0	11	0.8
E990-998	**OPERATIONS OF WAR**	2	0.0	36.0	14.0	17.0	17.0	17.0	0	0.0
	ALL OTHER	16	0.2	40.4	20.4	7.8	7.3	8.0	2	0.1