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Injury Episodes and Circumstances: National Health Interview Survey, 1997–2007



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
September 2009
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Abstract

Background

The National Health Interview Survey (NHIS) provides estimates of nonfatal, medically attended injuries and poisonings occurring in the United States.

Objectives

The objectives of this report are to 1) document changes in the injury and poisoning section of NHIS from 1997 through 2007; 2) provide guidance on summarizing data across the 11-year study period; and 3) present detailed national estimates of nonfatal injury and poisoning episodes for the time period.

Data Source

NHIS samples the civilian, noninstitutionalized population of the United States living in households. NHIS data from the years 1997–2007 were used in this report. Some questions related to injury and poisoning episodes were modified in 2000 and 2004.

Findings

During the period 1997–2004, many NHIS injury and poisoning questions were improved as a result of cognitive interviewing, data analysis, and feedback from interviewers and data users. Revisions to the NHIS injury and poisoning section pose some difficulties for trend analysis. However, some questions remained the same during the 11-year period, despite the questionnaire revisions. The injury and poisoning section has not been revised since 2004 and, where possible, analyses should be limited to 2004 and beyond. For analyses that require a longer time period, this report provides information on changes to questions and statistics that illustrate the effect of these changes on injury estimates.

In 2007, the medically attended injury and poisoning episode rate among the U.S. civilian, noninstitutionalized population was 115.7 per 1,000 population. Despite differences in some questions during the period 1997–2007, NHIS data for these years show falls as the leading cause of injury and the home as the leading place that injury occurred.

Keywords: injuries • poisonings

Injury Episodes and Circumstances: National Health Interview Survey, 1997–2007

by *Li Hui Chen, M.S., Ph.D.*; *Margaret Warner, Ph.D.*; *Lois Fingerhut, M.A.*; and *Diane Makuc, Dr.P.H., Office of Analysis and Epidemiology*

Introduction

The National Health Interview Survey (NHIS) is a unique source of national data on nonfatal injury and poisoning in the United States. Unlike other sources of data on nonfatal injury that rely on medical records review, NHIS offers a comprehensive assessment of the causes, circumstances, and outcomes of the injury event. The survey is population-based and covers medically attended nonfatal injuries regardless of place of treatment.

This report presents estimates of nonfatal, medically attended injury episodes by some of the many factors included in NHIS and covers the 11-year period from 1997 through 2007. In 1997, the NHIS questionnaire was redesigned and included more detailed questions on injuries than in previous years (1). Injury estimates have always been available from NHIS, but prior to 1997, the injury statistics extracted from NHIS lacked detail about the circumstances of the events resulting in the injury (2). Revisions to the injury section of the questionnaire were implemented in 2000 and 2004. The majority of the estimates in this report are annual averages for the three time periods bounded by the revision years: 1997–1999, 2000–2003, and 2004–2007.

This report serves as a tool for those who conduct analyses of these

rich data and as a source of U.S. injury statistics. The objectives are three-fold: 1) to document changes in the injury section of NHIS; 2) to provide guidance on summarizing the data across the 11-year study period; and 3) to present detailed national estimates of nonfatal injury episodes for the years 1997–2007.

Overview of NHIS

NHIS monitors the health of the U.S. population through the collection and analysis of data on a broad range of health topics. A major advantage of the survey is the wide array of health-related variables available for analysis by many demographic and socioeconomic characteristics of respondents. Injury is a leading cause of mortality and morbidity in the United States (3). NHIS includes a detailed injury section intended to describe the causes and circumstances as well as the outcomes of episodes of injury in the United States.

The basic module of NHIS is a Core questionnaire that consists of three main components: the Family Core, the Sample Adult Core, and the Sample Child Core. The survey structure is illustrated in [Figure 1](#).

The Core questionnaire remains largely unchanged from year to year allowing for trend analysis and for

Acknowledgments: We would like to thank Patricia Barnes in the Division of Health Interview Statistics for answering our many questions and for her continued work on preparation of the data in the Injury Section of the National Health Interview Survey.

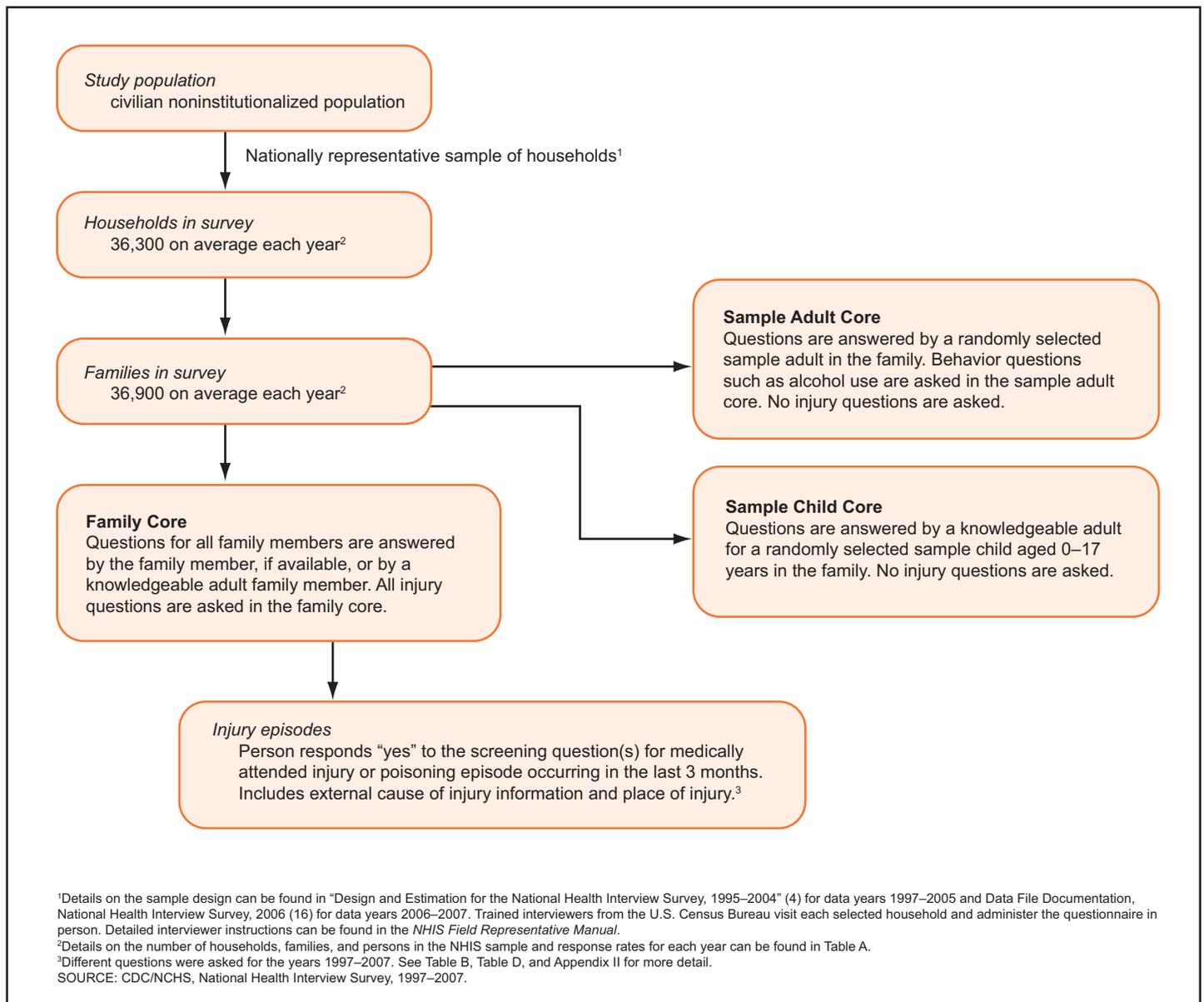


Figure 1. National Health Interview Survey structure

multiple years to be pooled. The Family Core, the source of data for this report, collects information for all family members. Detailed descriptions of the three components for each year can be found in Summary Health Statistics for the U.S. Population: National Health Interview Survey (1997 through 2007) (5–15).

During a household interview, all members of the household aged 18 and over who are at home at the time of the interview are invited to participate and respond for themselves to questions in the Family Core. For all children and for adults living in the household who

are not available for interview, information is provided by a knowledgeable adult family member (aged 18 and over) residing in the household. Information collected includes the household composition and sociodemographic characteristics of the family, along with basic indicators of health status, limitations in activities, utilization of health care services, and injury among family members.

NHIS is a cross-sectional survey with continuous sampling and interviewing throughout each year. Trained interviewers from the U.S. Census Bureau visit households selected

from the sampling frame and administer NHIS in person whenever possible. Detailed interviewer instructions can be found in the NHIS Field Representative Manual available on the NHIS website at <http://www.cdc.gov/nchs/nhis.htm>.

The NHIS sampling plan follows a multistage area probability design that permits a representative sampling of households. NHIS samples the civilian noninstitutionalized population of the United States living in households. As such the numerator and denominator of estimated rates are based on that population (unlike in some other surveys where the numerator is from a survey of

Table A. Number of households, families, and persons in the National Health Interview Survey sample and household response rates: National Health Interview Survey, 1997–2007

Year	Households	Families	Persons	Household response rates
1997	39,832	40,623	103,477	91.80%
1998	38,209	38,773	98,785	90.00%
1999	37,573	38,171	97,059	88.00%
2000	38,932	39,264	100,618	88.90%
2001	38,932	39,633	100,760	88.90%
2002	36,161	36,831	93,386	89.60%
2003	35,921	36,573	92,148	89.20%
2004	36,579	37,466	94,460	86.90%
2005	38,509	39,284	98,649	86.50%
2006	29,204	29,868	75,716	87.30%
2007	29,266	29,915	75,764	87.10%

medical records and the denominator is from the census). Persons not included in the survey are patients in long-term care facilities, persons on active duty with the Armed Forces (although their dependents are included), and U.S. nationals living in foreign countries.

Sample Size and Response Rate, 1997–2007

Sample size information, including the number of sampled households, families, persons in the NHIS sample, and response rates from the years 1997–2007 is shown in [Table A](#). In 2007, household interviews were completed for 75,764 persons living in 29,266 households (15). The household response rate in 2007 was 87.1%.

In 2006, the sample design was modified. The modification included a reduction of about 13% of the households. In addition, during the years 2002–2004 and 2006–2007, NHIS was faced with budget shortfalls and as a result, the size of the NHIS sample was reduced (16).

NHIS Injury Section, 1997–2007

This report focuses on data collected in the injury section of NHIS during the years 1997–2007. Data on injuries from the years 1957–1996 are not included as major changes to the injury section were implemented during

the 1997 NHIS redesign, making injury data from 1997 onwards not comparable to earlier years. Changes to the injury section implemented in the 1997 NHIS redesign include 1) changing the severity threshold for reporting injury events to include only injuries resulting in persons seeking medical attention; 2) increasing the recall period used in the injury screening questions from 2 weeks to 3 months; and 3) consolidating the injury questions within the survey instrument. Details of the 1997 redesign related to the injury section can be found in “Injury and Poisoning Episodes and Conditions: National Health Interview Survey, 1997” (1).

The injury questions were revised in 2000 and 2004 based on feedback from the interviewers, difficulties with data analysis, and data user feedback. Therefore, the estimates provided in this report are shown for three time periods: 1997–1999, 2000–2003, and 2004–2007. The survey instrument, including the question wording, is described in the following section. Data analysis and comparability issues across these time periods are discussed.

Survey Questionnaires

The NHIS Survey Questionnaires and Survey Description Documents for the years 1997–2007 are available on the NHIS website at <http://www.cdc.gov/nchs/nhis.htm>. The injury section of the questionnaire, referred to as the FIJ section, is included in the Family Core of NHIS. [Table V](#) in [Appendix II](#) provides the question wording and can

be cross-referenced with [Table VI](#) in [Appendix II](#), which shows information for locating the variable within the NHIS data files. The NHIS Survey Description Document provided for each year of the survey includes several pages describing the injury section, and includes more detail on the changes described in this report. In addition, modifications to the survey such as information on the sample design are included in the Survey Description Documents.

Screening Questions

The response to the screening questions on injury determines whether an episode of injury is reported and further information on the injury circumstances is gathered. The accuracy of the estimates of injury episodes is highly dependent on the screening questions. From the screening question, respondents need to understand what is meant by an injury, remember whether they experienced an injury during the specified recall period, and decide whether to accurately report the event (17).

The introduction and screening questions for the injury section were modified twice (2000 and 2004) after the initial revision to the section in 1997. The questions that screen for injuries for these three time periods are included in [Table B](#). The 1997–1999 questionnaires included an introduction explaining the importance of injuries, followed by a question asking about injuries, and further in the section a

Table B. Introduction and screening questions for injury: National Health Interview Survey, 1997–2007

Year	
1997–1999.	<p>Introduction to section: Injuries are a major health problem. In order to develop new ways to help prevent both accidental and intentional injuries, we need to know more about them.</p> <p>Screening questions: Questions for injury and poisoning were asked separately and do not immediately follow each other.</p> <p>Question for injury: DURING THE PAST THREE MONTHS, that is since [91 days before today's date], [were/was] [you/anyone in the family] injured seriously enough that [you/they] got medical advice or treatment?</p> <p>Question for poisoning: DURING THE PAST THREE MONTHS, that is since [91 days before today's date], [you/anyone in the family], did have a poisoning that caused someone to seek medical advice or treatment, including calls to a poison control center?</p>
2000–2003.	<p>Introduction to section: None</p> <p>Screening question: Questions for injury and poisoning were asked together.</p> <p>Question for both injury and poisoning: DURING THE PAST THREE MONTHS, that is since [91 days before today's date], [were/was] [you/anyone in the family] injured or poisoned seriously enough that [you/they] got medical advice or treatment?</p>
2004–2007.	<p>Introduction to section: People can be injured or poisoned unexpectedly, accidentally or on purpose. They may have hurt themselves or others may have caused them to be hurt.</p> <p>Screening questions: Questions for injury and poisoning were asked separately and do not immediately follow each other.</p> <p>Question #1 for injury: DURING THE PAST THREE MONTHS, that is since [fill1: (date 91 days before today's date)], [fill2: did you/did you or anyone in your family] have an injury where any part of [fill3: your/the] body was hurt, for example, with a [fill4: (random set of injury examples)]?</p> <p>Question #2 for injury: Did [fill1: you/ALIAS] talk to or see a medical professional about [fill2: any of these injuries/this injury/your injury or injuries/his injury or injuries/her injury or injuries]?</p> <p>Question #1 for poisoning: DURING THE PAST THREE MONTHS, that is since [fill1: (date 91 days before today's date)], [fill2: were you/were you or anyone in your family] poisoned by swallowing or breathing in a harmful substance such as bleach, carbon monoxide, or too many pills or drugs? Do not include food poisoning, sun poisoning, or poison ivy rashes.</p> <p>Question #2 for poisoning: Did [fill1: you/ALIAS] talk to or see a medical professional about [fill2: any of these poisonings/this poisoning/your poisoning or poisonings/his poisoning or poisonings/her poisoning or poisonings]?</p>

¹One of 10 lists of injury conditions with four sets of injury conditions per list (referred to as a “random set of injury examples”) was randomly assigned to the screening question. Including example lists in the screening question is designed to help the respondent understand what is meant by an injury and randomly assigning the set of examples protects against any one injury type being overrepresented in the sample. See Appendix III for details.

question asking about poisonings. The first modification in 2000 was to shorten the introduction and to combine the injury and poisoning questions into a single question. This change was made in an effort to streamline the section and to have the same set of follow-up questions asked for both injury and poisoning episodes.

The second modification, in 2004, addressed known analytic issues and interviewer feedback and was based on cognitive interviews conducted by the Questionnaire Design Research Lab (18). In the 2004 modification, an introduction to the section was included and a single screening question used in the years 2000–2003 was expanded into separate questions: whether the person was injured, whether the person was poisoned, and whether medical attention was sought.

When implementing the first modification in 2000, one of the screen questions was inadvertently reworded. The question asking respondents “How many different times in the past three months were you injured or poisoned seriously enough to seek medical advice or treatment?” was mistakenly changed

to “How many times in the past three months did you seek medical advice because you were injured or poisoned?” As a result, some respondents gave the number of times they sought medical advice for an injury or poisoning during the three months prior to the interview, rather than the number of times they were injured or poisoned during the three months prior to the interview. In the 2001 survey, the wording for this question was changed back to the wording that was originally intended in 2000. Except for this question, this section remained unchanged from 2000 through 2003.

Questions on Circumstances and Outcomes of Injury Episodes

The injury-specific questions in the NHIS injury section elicit information about the events reported in response to the screening questions. Narrative texts of the responses to several open-ended questions (referred to as “verbatim responses”) were recorded and are

available for analysis. [Appendix I](#) includes descriptions of specific terms and concepts used in this report. [Appendix II](#) includes the questions asked and the years included so that consistency between the years can be assessed. Detailed descriptions of the data editing process are included in the Survey Description Documents for each year of the survey and are available on the NHIS website.

Cause of injury

From 1997 through 1999, open-ended questions were asked about the cause of the injuries, excluding poisonings. In contrast, from 2000 through 2007, open-ended questions were asked about the cause of all injuries, including poisonings. The verbatim responses were recorded by the interviewer. The open-ended responses were coded according to the *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD–9–CM) external cause of injury codes*.

Up to four ICD–9–CM external cause of injury codes during the years

Table C. Causes of injury with expanded questions: National Health Interview Survey, 1997–2007

External cause of injury	1997–1999	2000–2003	2004–2007
Vehicle as transportation	Person type (e.g., driver, passenger, pedestrian), vehicle type, seatbelt/car-seat/helmet use	Person type (e.g., driver, passenger, pedestrian), vehicle type, seatbelt/car-seat/helmet use	Person type (e.g., driver, passenger, pedestrian), vehicle type, restrained/wearing helmet
Fire or burn or scald	What caused it	What caused it	None
Near drowning	Body of water	None	None
Fall	What fell from or into, cause of fall such as slipping, jumping, loss of balance	What fell from or into, cause of fall such as slipping, jumping, loss of balance	What fell from or into, cause of fall such as slipping, jumping, loss of balance
Gun	Type	None	None
Animal bite	None	Type	None
Poisoning	What caused it	What caused it	What caused it

1999–2003, and up to eight codes beginning in 2004, were assigned based on responses to questions. An analysis variable which categorizes the first-listed external cause of injury into broader categories (e.g., falls, transportation) was created using the external cause of injury morbidity matrix (<http://www.cdc.gov/ncipc/osp/matrix2.htm>) (19).

There are no questions in the injury section that specifically address the question of intentionality because it was determined during cognitive testing of the questionnaire that the setting of the interview (e.g., in the home with other family members possibly present) was not conducive to identifying assaults and intentionally self-inflicted injuries. This did not preclude respondents, however, from describing injuries that resulted from intentional acts. It is possible to identify such incidents using the ICD external cause code.

In addition, the survey includes follow-up questions for certain causes of injury to address specific data needs for these injury types. [Table C](#) includes the external causes of injury with follow-up questions by year. See [Appendix II](#) and the survey questionnaire for each year for more detail. Respondents receive follow-up questions if the interviewer chooses one of the specific causes from a response list after listening and recording the response to the question, “How did the injury happen?” The interviewer’s categorization of the cause, as well as the information from the follow-up causes, is recorded and available for analysis. The interviewer’s categorization of the cause may differ from that of the ICD.

Nature of injury

Respondents were asked to describe the injury conditions ([Appendix I](#), “Injury condition”) that resulted from the injury episode. From 1999 through 2003, a series of open-ended questions asked respondents to describe the “parts of the body” that were hurt and the “kind of injury.” Up to four ICD–9–CM injury diagnosis codes in the years 1999–2003 were assigned based on the verbatim responses to the questions. It was noted in review of the verbatim responses, that in some cases, the descriptions of the injury included diagnostic detail. However, in other cases, the injury descriptions were barely sufficient for ICD–9–CM coding at the broadest level. Beginning in 2004, in order to eliminate some of the variation in specificity from the open-ended questions, respondents were asked to identify the injured parts of the body by pointing to a flashcard illustrating a human body with predefined body parts ([Figure I](#)). In addition, there were predefined response lists for the kind of injury (e.g., contusion, fracture, etc.) which included an option for the user to specify the kind of injury (i.e., other, specify). These open-ended responses were recorded and are available on the “Verbatim” file ([Appendix I](#), “Injury condition”). Up to eight codes were assigned based on responses to questions about the injury conditions. In this report, “nature of injury” data were categorized according to the Barell Injury Diagnosis Matrix (20). After a revision to the question in the years 2004–2007, injuries classified as

“other” according to the Barell Matrix dropped significantly to less than 16% and injuries classified as “contusion or superficial” increased significantly to more than 22%.

Place of occurrence and activity at time of injury

Respondents were asked to select up to two places of occurrence of injury episodes from a predefined response list after the question, “Where was [person] when the injury/poisoning happened?” Respondents were asked to select up to two activities from a predefined response list after the question, “What activity was [person] involved in at the time of the injury/poisoning?” The response lists for both questions are based on an early version of the *International Classification of External Causes of Injury* and are shown in [Appendix I](#) (21). The questions were not asked for poisonings prior to 2000.

Source of medical care

From 1997 through 1999, there were two direct questions on sources of medical care: 1) whether or not the person was hospitalized for the reported injury episode, and 2) whether or not a call was placed to the poison control center. In response to user feedback indicating that it was important to know other places where treatment was received, a question on the sources of medical care was added beginning in 2000. The question allowed respondents to indicate all applicable sources of medical care from a predefined response list. The possible responses were in the

Table D. Definition of injury episodes: National Health Interview Survey, 1997–2007

Year	
	Injury episodes excluding poisoning
1997–2007	Include if <ul style="list-style-type: none"> • Positive response to the screening question for injury (see Table B). • AND at least one ICD–9–CM nature-of-injury code in the range 800–909.2, 909.4, 909.9, 910–994.9, 995.5–995.59, and 995.80–995.85; • AND at least one external cause of injury code in the range E800–E848, E850–E869.9, E880–E929.9, or E950–E999
	Injury episodes due to poisoning
1997–1999	Include if <ul style="list-style-type: none"> • Positive response to the screening question for poisoning (see Table B). • AND “Cause of poisoning” field (POITPR2) was “A drug or med substance used mistakenly/od” (POITPR2=01), “A harmful or toxic solid or liquid substance” (POITPR2=02), “Inhaling gases or vapors” (POITPR2=03), “Eating poisonous plant/substance” (POITPR2=04), “A venomous animal or plant” (POITPR2=05), or “Something else-poisoning” (POITPR2=06)
2000–2003 ¹	Include if <ul style="list-style-type: none"> • Positive response to the screening question for injury and poisoning (see Table B). • AND at least one ICD–9–CM nature-of-injury code in the range 800–909.2, 909.4, 909.9, 910–994.9, 995.5–995.59, and 995.80–995.85; • AND at least one external cause of injury code in the range E800–E848, E850–E869.9, E880–E929.9, or E950–E999; • AND “Cause of poisoning” field (POITP) was NOT “food poisoning” (POITP=06) or “allergic reaction” (POITP=07).
2004–2007	Include if <ul style="list-style-type: none"> • Positive response to the screening question for poisoning (see Table B). • AND at least one ICD–9–CM nature-of-injury code in the range 800–909.2, 909.4, 909.9, 910–994.9, 995.5–995.59, and 995.80–995.85; • AND at least one external cause of injury code in the range E800–E848, E850–E869.9, E880–E929.9, or E950–E999

¹Episodes assigned to a cause of poisoning by the interviewer during the interview. See “FIJ.080” in Table V in Appendix II.

following order: Phone call to doctor or health care professional, Phone call to poison control center, Visit to doctor’s office, Visit to clinic or outpatient department, Visit to emergency department, Visit to hospital (stayed at least one night). Responses indicating hospitalization were lower than expected in the years 2000–2003 when compared to the results from the 1997–1999 NHIS and other sources. Beginning in 2004, separate questions were asked for each source of medical care received after the injury ([Appendix II](#)). In this report, analyses related to source of medical care were limited to data from the years 2004–2007; analyses related to hospitalization were limited to data from the years 1997–1999 and 2004–2007.

School or work days lost

Information on days missed from work for persons aged 13 and over, or school for persons aged 5 and over, due to injury or poisoning is available for all years since 1997. However, the method of determining whether a person was working or was in school at the time of the injury was approached differently in the years 1997–1999, 2000–2003, and 2004–2007. In the years 1997–1999, the possible responses to the work loss questions were the following: None, Less than 1 day, 1 to 5 days, 6 or more days, Not employed at the time of the injury. In the years 2000–2003, the possible responses were in the following order: Not employed at the

time of the injury or poisoning, None, Less than 1 day, 1 to 5 days, 6 or more days. Parallel questions were asked for school loss. The number of respondents indicating that they were not employed at the time of injury or not in school at the time of injury increased when the order of responses changed in 2000. Based on cognitive interviewing, from 2004 onwards, respondents were asked whether the injury occurred while working or in school, immediately prior to asking about school or work loss as a result of the injury. In this report, analyses related to these variables were limited to data from the years 2004–2007.

Verbatim responses to open-ended questions

Verbatim responses to the questions of how the injury occurred, of the body part injured, and of the nature of injury for episodes of injury excluding poisonings are available from the years 1997–1999. Verbatim responses for all episodes of injury, including poisoning, are available from the years 2000–2007. The verbatim responses were edited to protect the injured person’s confidentiality, however grammatical and spelling errors were not corrected.

Definition of Injury Episodes

Injury episodes were limited to those requiring medical attention. The

determination of whether an episode was medically attended was made by respondents, who were asked to report only those incidents requiring medical advice or treatment (see [Table B](#) and [Appendix I](#) for more details on the term “medically attended”). “Medical attention” covers a wide range of care, treatment, and advice including over the phone consultations. Help screens that present further clarification on the definition of medical attention were available to the interviewers. “Medically attended” is the term used throughout this report and has the same meaning as “medically consulted” which is used in some National Center for Health Statistics (NCHS) reports. Information on injuries that were self-treated or not treated was not requested (see “Discussion of Analytic Issues: Self-treated Injuries”).

The criteria used to determine if reported episodes were included in the analysis for this report are listed in [Table D](#). Because poisoning questions were asked in a different manner in the years 1997–1999 and 2000–2003 (e.g., separate screening questions), the criteria are different for this cause of injury than for other causes. Episodes of injury excluding poisoning from the years 1997–2007 were defined using ICD–9–CM codes for those who gave a positive response to the screening questions for injury ([Table B](#)). Episodes of injury due to poisoning were defined differently in each of the three time periods using either the cause of poisoning question, ICD–9–CM codes,

Table E. Ratios of injury episodes to persons with at least one injury episode and ratios of injury conditions to injury episodes, by cause of injury and year: United States, 1997–2007

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Ratios of episodes to persons											
All causes of injury	1.06	1.05	1.05	1.06	1.05	1.04	1.04	1.03	1.02	1.02	1.03
Fall	1.05	1.04	1.02	1.04	1.05	1.03	1.03	1.01	1.03	1.02	1.03
Struck by or against	1.03	1.02	1.02	1.03	1.02	1.02	1.02	1.00	1.00	1.02	1.00
Transportation.	1.02	1.01	1.02	1.02	1.01	1.01	1.01	1.00	1.00	1.00	1.02
Overexertion.	1.01	1.02	1.02	1.07	1.03	1.01	1.03	1.00	1.01	1.03	1.02
Cut or pierce	1.01	1.01	1.02	1.01	1.00	1.02	1.00	1.00	1.02	1.00	1.00
Poisoning	1.05	1.01	1.04	1.05	1.05	1.03	1.21	1.00	1.00	1.14	1.06
Ratios of conditions to episodes											
All causes of injury	1.13	1.12	1.14	1.18	1.17	1.20	1.18	1.30	1.25	1.32	1.26
Fall	1.21	1.20	1.17	1.17	1.14	1.20	1.19	1.37	1.30	1.28	1.26
Struck by or against	1.09	1.09	1.08	1.09	1.07	1.09	1.06	1.11	1.24	1.37	1.15
Transportation.	1.64	1.53	1.58	1.51	1.58	1.59	1.52	1.92	1.64	1.90	1.86
Overexertion.	1.05	1.05	1.04	1.10	1.06	1.05	1.08	1.08	1.09	1.07	1.16
Cut or pierce	1.04	1.01	1.04	1.01	1.04	1.01	1.03	1.03	1.00	1.02	1.05
Poisoning . . . . .	...	...	...	1.10	1.11	1.03	1.09	1.16	1.00	1.79	1.00

... Category not applicable.

or a combination of these two fields.

Data on injuries are collected at the episode or event level; therefore, there may be more than one injury episode per person. In addition, there may be more than one injury condition reported for each injury episode. Table E shows the ratios of injury episodes to persons and injury conditions to injury episodes by year and external cause of injury. The ratios of injury episodes to persons for all causes combined ranged from 1.02 to 1.06 in the years 1997–2007. The ratios of conditions to injury episodes ranged from 1.12 to 1.32 in the years 1997–2007 for all causes combined. Transportation-related injuries had the highest numbers of conditions reported per episode.

Estimation Procedures

NHIS Sample Weights

The NHIS sample weights for use with data from the Family Core, the Final Annual Person Weight (WTFA), are calculated by NCHS and provided on the data file. The weight incorporates the probability of selection for each person in the sample, along with adjustments for nonresponse and post-stratification based on census population estimates by sex, age, and race/ethnicity. Details of estimation

procedures can be found in “Summary health statistics for the U.S. population: National Health Interview Survey” for 1997 to 2007 (5–15). It should be noted that weights for the years 1999–2002 were derived from the 1990 census-based population estimates, and those for the years 2003–2007 were derived from the 2000 census-based population estimates (22).

Annual Estimates of the Number of Injury Episodes

To calculate an annualized national estimate of injury episodes, each episode is first weighted using WTFA, and then the weighted number of episodes reported during a time period is multiplied by the number of time periods in 1 year. For instance, to estimate the number of injury episodes occurring annually using episodes with 3 months or less elapsing between the injury and the interview, each episode reported during the 3-month period is weighted to reflect the national estimate and then multiplied by 4 (i.e., by $52/13=4$). If the data are limited to injury episodes within 5 weeks of the date the injury questions were asked, each 5-week weighted count should be multiplied by 10.4 (i.e., by $52/5=10.4$).

In this report, estimates for the years 1997–2003 were annualized using all injuries reported in the survey and multiplying each estimate by 4. The

estimates for the years 2004–2007 were annualized by selecting episodes that occurred 5 weeks or less before the interview and then multiplying each 5-week estimate by 10.4. Beginning in 2004, the annual estimates are based on episodes with 5 weeks or less between the date of injury and the interview because a study using 1997–1999 data showed that as the time interval between the injury and the interview increased, the number of episodes reported decreased (23). The data suggest that respondents may experience some memory decay as they are asked to recall events happening further in the past, and the decay varies by severity of the episode. Based on the statistical analysis, a period of 3 to 6 weeks between injury and interview was recommended for calculating annual estimates of injury. For this report and other NCHS reports, episodes with up to 5 weeks between injury and interview were chosen, as 5 weeks would make the estimate analogous to an estimate with a 1-month recall reference period.

In order to limit the episodes to those occurring in the past 5 weeks or less, the time elapsed between the injury episode and the interview must be established. Beginning in 2004, if respondents could not recall the exact date of the injury episode, further questions were asked to establish an approximate date of injury. The time interval between injury and interview

was calculated if the exact date was known, or imputed based on the available information if the exact date was not reported. Imputation flags are included in the file. The imputation method is described in a paper by Coles et al., 2006 (24). These methods could not be applied to years prior to 2004 because there was too little information on the date of injury to impute with the same level of certainty (Appendix II).

To calculate the annual estimates for the years 2004–2007 that are shown in this report, the elapsed time interval variable is used to select episodes occurring within 5 weeks of the interview. The data analyst can use another recall period to annualize the 2004–2007 data because the full 3 months of data are retained and the elapsed times provided (23). For analysis of injury episodes resulting in more serious outcomes (e.g., estimates for fractures and hospitalizations) that are unlikely to be forgotten, the recall period can be expanded beyond 5 weeks (23). In this case, the longer time period between the injury episode and the date of the interview will increase the unweighted number of episodes reported and therefore increase the size of the sample, providing greater stability in the estimates. However, a single recall period should be used throughout a specific analysis.

It is not possible to estimate the number of people injured annually using NHIS. Although the number of people who were injured during the 3-month recall period is known, this number cannot be assumed to be uniform over a 12-month period. For example, if it is known that 100 people responded that they were injured during the 3-month recall period, one cannot assume that 400 different people were injured in a 12-month period because some people may be injured multiple times and some may be injured once. On the other hand, it is appropriate to estimate the number of injuries over the 12-month period (by multiplying the 3-month estimate by 4 for the years 1997–2003 and by multiplying the 5-week estimate by 10.4 for the years 2004–2007) because that figure is the same whether or not individuals had multiple injuries.

Multi-year Estimates of Injury Episodes

Estimates shown in the tables are annual estimates if a single year of data is shown or average annual estimates if data are pooled over multiple years. Adjacent years of NHIS data are combined for a pooled analysis (i.e., 1997–1999, 2000–2003, and 2004–2007). An estimate from a pooled analysis can be interpreted as an estimate for the midpoint or the “average” over the time interval of the pooled data. The sample weights in the pooled dataset are divided by the number of years that are pooled; for example, divide by 4 when four years of data are combined. More details on pooled analysis can be found in the 2006 NHIS Survey Description (16).

Variance Estimation

Variance is a measure of the reliability of point estimates. Estimates in the tables that do not meet NCHS standards of reliability or precision are flagged. NHIS data are obtained through a complex sample design involving stratification, clustering, and multistage sampling. Standard errors were calculated using the SUDAAN software package. The Taylor series linearization method was chosen for variance estimation in SUDAAN (25).

Multi-year Variance Estimates

In the years 1997–1999 and 2000–2003, the pooled data years fall within the same sample design period. Pooled data were therefore treated as a single unit with a very large sample size for variance estimation.

In the years 2004–2007, the pooled data years are from different sample design periods (i.e., design periods 1995–2005 and 2006–2007) and the different sample design periods were treated as statistically independent. This report uses the method described in the 2006 NHIS Survey Description to combine years of data (16). Using this method, the 2004–2005 data were treated as one unit of data and the

2006–2007 data were treated as a second unit of data. In order to pool the two statistically independent units of data, the design variables were modified to distinguish one unit of time (i.e., 2004–2005) from the other (i.e., 2006–2007). This was accomplished by adding 1,000 to the 2006–2007 stratum variables that were provided on the NHIS public-use data files.

Rates of Injury Episodes

Rates of injury episodes were calculated as the annual number of episodes per 1,000 population. Crude rates were calculated using the number of injury episodes as the numerator and the population was calculated directly from the survey as the denominator. Age adjustment was used to adjust for differences in the age distribution of the population groups being compared. Age adjustment is often done when trends are being analyzed or when population groups being compared are known to have different age distributions. Unless otherwise specified, estimates are age adjusted by the direct method to the 2000 U.S. standard population using six age groups: under 15 years, 15–24 years, 25–44 years, 45–64 years, 65–74 years, and 75 years and over.

Data Tables

Descriptive tables for injury episodes and injury conditions include estimates for each year from 1997 through 2007. Detailed descriptive tables provide average annual statistics for three time periods: 1997–1999, 2000–2003, and 2004–2007. Time periods correspond to the different revisions of the survey instruments as described above. Descriptive analyses were performed using SUDAAN (25).

In the tables, frequencies are underestimated due to item nonresponse and unknowns. All episodes with unknown values for the variables of interest (i.e., “refused,” “don’t know,” or “not ascertained”) were removed

from the denominators when calculating percentages (or rates). For more information on methods and interpretation of the statistics, see the term “Missing values” in [Appendix I](#).

Estimates were compared using two-tailed statistical tests at the 0.05 level. No adjustments were made for multiple comparisons. Terms such as “greater than” and “less than” indicate a statistically significant difference. Terms such as “similar” or “no difference” indicate that the statistics being compared were not significantly different. Lack of comment regarding the differences between statistics does not mean that the difference was tested and found to be not significant.

Discussion of Analytic Issues

Analysis Involving Multiple Years of Data

As described earlier in this report, the NHIS injury section was revised in 2000 and in 2004. Therefore, the 11-year period from 1997 through 2007 can be divided into three time periods (i.e., 1997–1999, 2000–2003, and 2004–2007) with nearly identical questions. Information provided in this report should aid researchers in analyses of multiple years of data. [Appendix II](#) organizes the questions for each year into broad categories (e.g., cause, activity, treatment) and was designed to facilitate question comparison from year to year. The tables can be used to examine the effect of survey changes on estimates of injuries by selected variables. In addition, researchers can use the analysis in this report as a template for analyzing data for specific topics.

Trend analysis from 2004 forward is possible since there have been no revisions to the injury section of the survey questionnaire since 2004. However, the sample designs during the time periods 1995–2005 and 2006–2007 were different, so the techniques described in the sections, “Multi-year Estimates of Injury Episodes” and

“Multi-year Variance Estimates” should be consulted for analytic techniques and references.

Trend analysis from 1997 through 2007 is problematic because of the revisions to the questionnaire. The rates of injury as estimated from NHIS are lower in the years 2000–2003 compared to 1997–1999 and 2004–2007. The decrease during the years 2000–2003 is likely due to the shortened introduction to the injury section and combining the injury and poisoning screening questions as previously described. For this reason, without careful consideration of the questions and methods of analysis, a description of injury episodes across the three time periods is not recommended.

Some questions were asked in the same way during the 11-year period. For instance, cause of injury (excluding poisoning), place, and activity were asked in a consistent manner. Major findings such as the leading cause of injury (falls) and the leading place of injury (the home) are consistent in NHIS data across all years, despite the changes in the questionnaire.

Trends in estimates of injury rates over the 11-year period will be influenced by changes in the survey questionnaire. However, it may be possible to conduct analytic studies examining the associations between risk factors and injury during a longer period, provided the appropriate exploratory analysis of potential confounders is undertaken. For example, an option is to analyze the data in two time periods where the introduction and screening questions were similar, that is, 1997–1999 and 2004–2007. Another option, if the sample size is large enough, is to do a regression analysis stratifying by the three time periods while considering the time period as a confounder. However, the starting point is to compare the questions and the data elements for the specific topic of interest, and this report provides that information. In addition, researchers can review the tables in this report to identify potential confounders related to the topic of interest.

Although the breaks in trend are troublesome, there was an overall improvement to many of the NHIS injury questions during the years

1997–2004. These improvements were based on cognitive interviewing, data analysis, and feedback from the interviewers and data users. For instance, injury is generally analyzed with poisoning, so it was important to have parallel questions for both. Information about the source of medical care sought after the injury was expanded to include settings beyond the hospital, as many data users requested information on sources of care. Another improvement was the addition of response categories for the body region and nature of injury questions, because the open-ended questions in the previous years resulted in many missing and nonspecific responses.

The changes to the questionnaire implemented in 2004 were based on extensive cognitive interviewing in the Questionnaire Design Research Lab (QDRL). The results of the cognitive interviewing can be found in Q-Bank, which is a database consisting of questions that have been evaluated for surveys conducted by the United States federal government (26). Detailed information is available at <http://www.cdc.gov/QBANK/Home.aspx>. To find the tested questions included in Q-Bank, search the database for using the keyword “injury.” Links to the full QDRL report are available on the Q-Bank website (27).

Self-treated Injuries

NHIS obtains information on medically attended injury episodes. Although “medically attended” covers a wide range of care and treatment, including over the phone consultations, some injuries are self-treated or not treated for such reasons as lack of access to care or due to individual choice. Access to care may be an issue due to such factors as distance from a medical facility, lack of health insurance, or inability to pay for care. The national estimates of injury presented in this report will vary by factors which influence presentation for medical attention. For instance, persons with health insurance might have more medically attended injury episodes than persons without health insurance. Estimates of minor injuries will be

influenced more than severe injuries. Researchers should use caution when making comparisons among variables that are known to influence access to care.

NHIS Injury Estimates in Comparison to Other National Sources

National estimates of injury from NHIS are lower than other national estimates of injury (3). For example, in 2004, there were 31 million initial emergency department (ED) injury visits and 35 million initial physician office and outpatient department injury visits reported from the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey (NHAMCS), but there were 33 million episodes of medically attended injuries reported in NHIS. There is no doubt that some underreporting of injuries exists in NHIS. For instance, respondents may not report the injury because they forgot about their own injury, they did not want to report the injury, or the proxy respondents were not aware of the episode. However, there are several other possible explanations for the lower estimates.

NHIS is based on household reports of injury while other surveys are based on medical record reviews. Medical record surveys are often limited in their ability to differentiate between new and repeat visits and between injury and noninjury cases.

NHIS injury rates may be lower compared to other national sources because substantial segments of the population are excluded from the NHIS sample. These include nursing home residents, military personnel, and the homeless population. Older Americans and young adult males experience higher injury rates than the population overall (3). NHIS also excludes injuries resulting in death.

Estimated rates of injury between national surveys may differ because of

difficulties in defining the target populations for calculating rates. NHIS has a well defined target population and the population used in rate calculations for NHIS estimates is the population from which the sample is drawn. For other sources of national estimates of injury, the numerator is from a survey of medical records and the denominator is estimated using population statistics provided by the U.S. Census Bureau. Health care provider surveys, for instance, provide national estimates for visits to a defined set of medical facilities. However, the population covered by the medical care facility is less defined. When using data obtained from NHAMCS-ED to calculate ED injury visit rates, it is difficult to determine whether the noninstitutionalized civilian population should be used for the denominator because some institutionalized persons (e.g., people live in nursing homes) may utilize the ED.

Conclusions Concerning Injury Analyses

NHIS provides population-based information on nonfatal, medically attended injuries occurring in the United States. A major strength of the survey is that it allows for the analysis of health measures by many demographic and socioeconomic characteristics of the injured. In addition, detailed questions allow for description of the injuries, their circumstances, and outcomes. Trend analysis during the 11-year period from 1997 through 2007 is problematic. Trend analysis between 2004 and 2007 is possible. Some analyses across the 11-year period are possible but changes in the injury questions need to be considered. This report serves as starting point for such analyses.

Descriptive Injury Statistics

Injury Episodes by Selected Characteristics and Year (Tables 1 and 1a)

1997–2007

- In every year during the period 1997–2007, the age-adjusted rate of injury episodes among the U.S. civilian, noninstitutionalized population was higher for males than for females and for those who were non-Hispanic white than for non-Hispanic black and Hispanic.
- In 2007, there were an estimated 34.3 million injury episodes.
- Age-adjusted injury episode rates were higher for persons who had some college education (but no degree) than for persons with other education levels except in 2006, when there was no difference by education level.

Characteristics of Injury Episodes and Injury Conditions by Year (Tables 2 and 2a)

1997–2007

- Falls was the leading external cause of injury for every year from 1997 through 2007. Falls accounted for 38% of episodes in 2007.
- In or around the home was the leading place where injuries occurred from 1997 through 2007. In 2007, 44% of injuries occurred in or around the home.
- Leisure activities (excluding sports) was the leading activity at the time of medically attended injuries from 1997–2007. In 2007, 23% of injuries occurred during leisure activities (excluding sports).
- In the years 2004–2007, sprain or strain was the most commonly

reported nature of injury, followed by contusion or superficial injuries.

- Upper extremity and lower extremity injuries were most often reported as the injured body regions, each accounting for about 30% of the body regions reported for the years 1997–2007.

Causes of Injury Episodes by Selected Characteristics (Tables 3 and 4)

1997–1999, 2000–2003, and 2004–2007

- In the years 2004–2007, the four leading causes of injury were falls, overexertion, being struck by or against a person or an object, and transportation (Table 3).
- Transportation-related injuries were higher among persons aged 15–24 years than for other age groups in all three time periods (Table 3).
- The injury episode rates resulting from being struck by or against an object or a person, transportation, overexertion, and being cut or pierced were higher for males than for females in the years 1997–1999 and 2000–2003. In the years 2004–2007, the sex differences were not significant for transportation and overexertion (Table 3).
- Rates of injury resulting from falls were higher for females than for males in all three time periods (Table 3). Differences were most pronounced for females aged 75 and over; rates of injury resulting from falls were 55% higher for females than for males aged 75 and over in the years 2004–2007 (Table 4).

Nature and Body Region of Injury Conditions (Tables 5–7)

1997–1999, 2000–2003, and 2004–2007

- Sprain or strain to lower extremities was the most often reported nature and body region combination in the years 2000–2003 and 2004–2007;

this combination accounted for 13% of the reported injury conditions in the years 2004–2007 (Table 5).

2004–2007

- The most common body regions injured varied by sex and cause. Males were more likely to injure their upper extremities, while females were more likely to injure their lower extremities than other body regions. Of those who fell, both males and females were more likely to injure their lower extremities than other body regions. The torso or spine and back was the most common body region injured in transportation episodes, while upper extremities was most common for episodes related to being cut or pierced (Table 6).
- Children under age 15 had a higher proportion of injuries to the head and neck compared to the other age groups (Table 6).
- Sprain or strain and contusion or superficial injuries were the leading injury conditions reported for injury episodes resulting from falls and transportation; each accounted for about one-third of the conditions reported (Table 7).
- Thirty-four percent of the conditions reported for injury episodes resulting from being struck by or against an object or a person were in the category contusion or superficial injuries (Table 7).
- About 80% of the conditions reported for injury episodes resulting from overexertion were in the category sprain or strain (Table 7).

Places of Occurrence of Injury Episodes (Table 8)

1997–1999, 2000–2003, and 2004–2007

For females, inside the home was the leading place of occurrence for injury episodes resulting from all causes except transportation, in all three time periods. In the years 2004–2007, females were inside the home for more than 40% of episodes in which they fell,

episodes in which they were struck by or against an object or a person, and episodes in which they were cut or pierced.

For males, there was more variation in place of injury for different causes of injury, in all three time periods.

Activities at Time of Injury Episodes (Table 9)

1997–1999, 2000–2003, and 2004–2007

- Activity at time of injury varied by cause of injury for both males and females, in all three time periods.
- Leisure activities (excluding sports) was the most common activity at the time of a fall, accounting for about 30% of falls in all three time periods.
- Working at a paid job was the most common activity for males at the time of an injury due to overexertion in all three time periods.

Hospitalization as a Result of Injury Episodes (Table 10)

1997–1999 and 2004–2007

- The percentage of respondents who reported that they or family members were hospitalized for injury episodes was 7% in the time periods 1997–1999 and 2004–2007.
- The percentage of persons hospitalized as a result of their injury increased with age. The percentage of hospitalized episodes among those aged 65 years and over was almost three times the percentage among those aged 25–64 in both time periods.

Days Lost From School and Work Due to Injury Episodes (Table 11)

2004–2007

- Among those attending school at the

time of injury, 34% of injury episodes resulted in time lost from school and 22% of injury episodes resulted in 1–5 days away from school.

- Among those working at the time of injury, about one-half of injury episodes resulted in time lost from work. Ten percent of injury episodes among males resulted in loss of less than 1 day from work compared with 6% among females. There was no difference between males and females in the percentage of injury episodes resulting in more than 1 day away from work.

Sources of Medical Care for Injury Episodes (Table 12)

2004–2007

- Seventy-one percent of injury episodes resulted in at least a visit to a doctor's office or clinic. Fifty-six percent of injury episodes resulted in at least a visit to an emergency room or use of an emergency vehicle; 18% of injury episodes resulted in only a visit to an emergency room or use of emergency vehicle without using any other sources of medical care.
- Injury episodes were categorized into a mutually exclusive hierarchy of care based on the highest level of medical care received, ranging from overnight hospitalization to a phone call to a medical professional. Seven percent of injury episodes resulted in an overnight stay in a hospital; 49% resulted in attendance by an emergency vehicle or in an emergency room as the highest level of care received; 39% resulted in at most a visit to a doctor's office or clinic; and 3% made calls to a medical professional or poison control center.
- Thirty-four percent of the injury episodes resulted in at least a phone call to a medical professional but for 2% of the injury episodes, the only source of care was a call to a medical professional or poison control center.

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Table 1. Age-adjusted annualized rates of injury episodes and selected characteristics, by year: United States, 1997–2007

Selected characteristic	1997	1998	1999	2000 ¹	2001	2002	2003	2004 ¹	2005	2006	2007
	Rate per 1,000 population (standard error)										
Total (crude)	128.6 (2.6)	126.4 (2.9)	114.2 (2.7)	93.7 (2.5)	88.0 (2.4)	82.7 (2.1)	82.4 (2.4)	115.0 (3.9)	114.0 (4.3)	113.2 (4.8)	115.7 (4.9)
Total (age-adjusted)	128.4 (2.6)	126.4 (2.9)	114.1 (2.7)	93.5 (2.5)	88.0 (2.3)	82.8 (2.1)	82.7 (2.4)	115.1 (4.0)	114.0 (4.3)	113.6 (4.8)	116.6 (5.0)
Sex											
Male	139.8 (4.0)	143.4 (4.0)	128.5 (4.0)	103.6 (3.6)	95.0 (3.2)	90.3 (3.3)	90.4 (3.5)	121.9 (5.7)	124.5 (6.3)	119.1 (7.5)	127.1 (7.7)
Female	115.3 (3.4)	108.1 (3.6)	99.0 (3.3)	82.9 (3.0)	80.3 (3.1)	74.4 (2.7)	74.6 (3.2)	107.1 (5.6)	102.4 (5.4)	106.2 (6.2)	105.3 (6.4)
Age ²											
Under 15 years	122.8 (5.3)	121.1 (5.4)	111.3 (5.2)	94.9 (5.2)	85.1 (4.6)	84.8 (4.4)	81.7 (4.8)	117.0 (9.0)	113.4 (9.0)	105.9 (10.8)	112.3 (11.4)
15–24 years	164.2 (8.2)	167.4 (9.1)	153.8 (7.9)	125.5 (7.2)	112.8 (6.8)	120.0 (7.4)	96.2 (6.6)	148.4 (13.5)	137.8 (13.9)	131.6 (13.6)	151.3 (15.3)
25–44 years	135.2 (4.6)	128.4 (4.7)	113.8 (4.9)	95.6 (4.2)	86.3 (3.9)	79.7 (3.9)	87.7 (4.3)	112.4 (7.5)	94.7 (6.9)	102.3 (9.0)	118.1 (9.4)
45–64 years	99.4 (5.1)	109.5 (5.1)	94.9 (5.1)	81.3 (5.4)	81.4 (4.5)	65.7 (3.8)	68.7 (4.0)	103.9 (7.9)	109.3 (7.5)	102.9 (8.9)	90.1 (8.3)
65–74 years	110.8 (8.6)	96.8 (8.6)	96.1 (8.8)	61.9 (6.3)	71.7 (8.2)	50.4 (6.6)	55.9 (7.3)	70.4 (11.7)	124.5 (17.6)	91.2 (16.0)	114.6 (19.5)
75 years and over	158.5 (12.4)	135.4 (12.0)	124.6 (11.4)	83.8 (8.6)	91.2 (9.8)	103.8 (10.6)	112.4 (10.9)	135.4 (18.2)	162.4 (20.3)	219.2 (29.9)	144.7 (21.8)
Hispanic or Latino origin and race ³											
Hispanic or Latino	89.5 (5.5)	81.3 (5.2)	72.7 (5.3)	44.5 (3.9)	54.8 (4.6)	55.8 (4.7)	49.9 (4.1)	61.4 (6.3)	80.0 (9.2)	67.6 (9.3)	59.3 (7.3)
Mexican or Mexican American	75.8 (7.1)	77.1 (7.0)	74.9 (6.5)	42.1 (5.2)	56.1 (5.4)	56.6 (6.3)	49.6 (5.2)	59.6 (7.6)	78.6 (13.0)	72.4 (12.4)	59.0 (8.7)
Not Hispanic or Latino	133.8 (2.8)	132.8 (3.2)	120.4 (3.0)	100.7 (2.8)	93.0 (2.6)	87.6 (2.4)	88.2 (2.8)	125.0 (4.5)	122.5 (4.9)	121.5 (5.4)	127.2 (5.8)
White, single race	142.4 (3.3)	141.6 (3.8)	129.9 (3.4)	111.0 (3.4)	103.2 (3.1)	96.2 (2.8)	97.7 (3.3)	133.1 (5.3)	132.3 (5.6)	133.6 (6.5)	141.2 (7.3)
Black or African American, single race	108.6 (6.5)	98.4 (6.3)	78.3 (5.7)	56.3 (4.7)	49.7 (4.1)	54.9 (5.2)	56.0 (4.8)	93.3 (11.0)	91.7 (12.2)	75.6 (8.8)	84.3 (10.9)
American Indian or Alaska Native, single race	202.2 (47.6)	184.9 (35.6)	193.5 (45.9)	99.5 (26.5)	125.5 (33.7)	*76.7 (27.0)	*63.6 (26.0)	*231.9 (101.8)	*122.0 (51.4)	†	*154.6 (46.4)
Asian, single race	55.7 (9.9)	75.6 (12.7)	50.5 (10.3)	34.5 (7.2)	38.4 (8.3)	36.6 (7.0)	22.1 (5.5)	57.4 (13.7)	45.4 (11.5)	38.3 (10.9)	41.8 (11.1)
Education, 25 years and over											
Less than a high school diploma	120.6 (7.1)	104.8 (6.8)	94.6 (7.4)	76.4 (6.1)	81.5 (6.8)	64.7 (6.5)	72.0 (6.1)	99.6 (11.0)	100.3 (11.8)	120.6 (17.6)	86.3 (13.2)
High school diploma or GED ⁴	124.5 (5.8)	118.1 (5.9)	107.5 (5.7)	85.5 (5.0)	81.0 (4.9)	70.9 (4.5)	74.0 (4.9)	109.9 (9.4)	109.7 (9.5)	106.7 (10.6)	110.1 (10.7)
Some college	142.2 (7.0)	148.5 (8.0)	129.8 (6.7)	103.0 (5.8)	99.7 (5.8)	91.0 (5.7)	98.5 (6.3)	129.5 (9.9)	135.0 (10.3)	135.6 (14.1)	149.3 (13.8)
Bachelor's degree or higher	106.1 (6.6)	111.7 (6.6)	97.0 (6.2)	84.2 (6.9)	79.3 (5.2)	72.4 (5.3)	85.6 (5.7)	97.9 (10.0)	92.1 (8.4)	108.6 (12.3)	96.9 (10.5)
Percent of poverty level ⁵											
Below 100%	132.6 (8.1)	119.1 (8.0)	114 (7.4)	81.9 (7.1)	85.4 (6.8)	83.8 (6.4)	82.6 (7.0)	120.2 (13.0)	108.7 (13.4)	127.5 (14.8)	124.8 (15.0)
100%–199%	132.6 (5.8)	107.4 (5.9)	106 (6.1)	90.5 (5.4)	82.4 (5.5)	83.3 (5.6)	78.6 (6.3)	109.9 (9.0)	116.6 (10.1)	117.4 (13.4)	114.9 (11.9)
200%–399%	125.8 (4.6)	133.3 (5.3)	117.4 (5.1)	94.1 (4.4)	95.4 (4.3)	84.7 (4.5)	81.6 (4.7)	110.1 (7.3)	114.5 (7.3)	105.5 (9.2)	123.4 (9.8)
400% or more	131.9 (5.2)	134.5 (5.2)	118.5 (5.0)	100.7 (4.4)	88.2 (4.0)	83.4 (4.1)	87.7 (4.3)	122.6 (8.2)	117.9 (7.7)	118.7 (9.0)	112.1 (8.7)
Health insurance coverage ⁶ under 65 years											
Private	133.0 (3.5)	136.1 (3.6)	119.8 (3.4)	102.0 (3.4)	94.5 (3.1)	88.7 (2.9)	88.0 (3.3)	125.2 (5.5)	114.8 (5.4)	110.7 (6.5)	119.9 (7.3)
Medicaid	152.2 (12.6)	160.7 (14.6)	133.1 (11.7)	103.3 (10.8)	105.3 (11.1)	100.3 (9.4)	95.7 (9.5)	137.8 (17.5)	130.1 (15.8)	155.9 (22.5)	129.6 (18.5)
Other	144.2 (17.4)	137.2 (18.7)	124.3 (20.2)	132.1 (22.5)	77.5 (14.0)	90.3 (16.8)	67.0 (13.5)	137.3 (31.3)	166.5 (38.2)	141.1 (39.2)	121.3 (28.8)
Uninsured	102.5 (8.0)	90.1 (9.8)	95.9 (6.7)	74.9 (5.2)	66.7 (4.9)	65.2 (4.9)	71.6 (5.6)	87.7 (9.6)	74.4 (8.5)	89.3 (10.9)	90.2 (13.2)

See footnotes and at end of table.

Table 1. Age-adjusted annualized rates of injury episodes and selected characteristics, by year: United States, 1997–2007—Con.

Selected characteristic	1997	1998	1999	2000 ¹	2001	2002	2003	2004 ¹	2005	2006	2007
Place of residence											
Rate per 1,000 population (standard error)											
Large MSA ⁷	121.1 (3.8)	124.8 (4.0)	105.0 (3.6)	86.0 (3.6)	78.5 (3.1)	67.7 (2.9)	72.5 (3.0)	99.3 (5.6)	111.4 (6.6)	96.4 (6.1)	96.9 (6.3)
Small MSA	134.1 (4.7)	120.7 (4.5)	118.5 (4.8)	100.3 (4.3)	89.9 (4.1)	92.7 (3.8)	91.0 (4.8)	127.3 (6.9)	111.7 (6.9)	135.7 (9.6)	138.1 (9.9)
Not in MSA	135.8 (5.4)	139.3 (7.8)	128.3 (6.8)	102.0 (6.0)	108.0 (6.0)	103.8 (5.4)	93.6 (6.3)	134.5 (10.1)	126.6 (9.8)	130.3 (13.0)	141.8 (13.5)
Region											
Northeast	128.3 (5.9)	131.5 (7.6)	112.4 (6.0)	96.1 (5.7)	85.8 (5.1)	74.9 (4.6)	78.8 (5.5)	122.0 (10.4)	98.1 (8.6)	98.7 (9.3)	105.1 (10.9)
Midwest	131.5 (4.9)	131.4 (5.5)	121.6 (5.8)	105.4 (5.2)	96.0 (5.1)	97.0 (4.7)	92.7 (5.3)	139.2 (7.9)	134.4 (9.0)	140.6 (11.9)	146.0 (12.0)
South	127.9 (4.3)	118.7 (4.7)	103.7 (4.4)	86.9 (4.2)	86.6 (4.0)	79.0 (3.6)	78.2 (4.0)	98.1 (6.4)	106.8 (7.7)	108.3 (7.9)	106.8 (7.4)
West	125.7 (6.2)	129.1 (5.9)	124.5 (5.6)	88.7 (5.0)	83.7 (4.7)	80.3 (4.3)	83.2 (5.1)	112.3 (8.4)	116.2 (8.6)	107.3 (9.6)	111.4 (10.8)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

¹The NHIS injury section was revised in 2000 and in 2004. Therefore, the 11-year period from 1997 through 2007 can be divided into three time periods: 1997–1999, 2000–2003, and 2004–2007. Estimates across these three time periods are not comparable.

²Age-specific estimates are not age-adjusted.

³Hispanic or Latino origin may be of any race or combination of races. Similarly, the category “not Hispanic or Latino” refers to all persons who are not of Hispanic or Latino origin, regardless of race. In the years 1997–1998, the Asian category included Native Hawaiian or Other Pacific Islander.

⁴GED is General Educational Development high school equivalency diploma.

⁵Percent of poverty level is based on family income and family size and composition using U.S. Census Bureau poverty thresholds. Family income was imputed for 24–34% of persons in 1997–2006 and 33% of persons in 2007. See Appendix I, “Family income,” “Poverty status.”

⁶Classification of health insurance coverage is based on a hierarchy of mutually exclusive categories. Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. See Appendix I, “Health insurance coverage.”

⁷MSA is metropolitan statistical area. Starting with 2006 data, MSA status is determined using 2000 census data and the 2000 standards for defining MSAs. For data prior to 2006, see Appendix I, “Place of residence.”

NOTES: Further information on terms used in tables can be found in Appendix I.

Table 1a. Annualized frequencies of injury episodes, by year and selected characteristics: United States, 1997–2007

Selected characteristic	1997	1998	1999	2000 ¹	2001	2002	2003	2004 ¹	2005	2006	2007
	Weighted number of episodes in thousands										
Total	34,291	34,013	31,024	25,664	24,330	23,063	23,575	33,149	33,202	33,256	34,347
Sex											
Male	18,502	19,136	17,220	14,027	12,940	12,418	12,603	17,249	17,750	17,107	18,422
Female	15,789	14,878	13,804	11,637	11,390	10,645	10,972	15,900	15,451	16,149	15,925
Age ²											
Under 15 years	7,316	7,247	6,697	5,725	5,153	5,153	4,958	7,102	6,887	6,422	6,827
15–24 years	6,036	6,244	5,833	4,829	4,403	4,746	3,851	6,027	5,651	5,427	6,304
25–44 years	11,272	10,651	9,393	7,839	7,032	6,434	7,256	9,234	7,771	8,390	9,699
45–64 years	5,457	6,205	5,564	4,924	5,089	4,245	4,687	7,290	7,899	7,642	6,861
65–74 years	2,006	1,741	1,716	1,105	1,274	894	1,016	1,286	2,295	1,727	2,205
75 years and over	2,204	1,926	1,821	1,242	1,378	1,590	1,807	2,210	2,699	3,648	2,451
Hispanic or Latino origin and race ³											
Hispanic or Latino	2,644	2,501	2,250	1,497	1,836	1,855	2,030	2,448	2,750	2,892	2,785
Mexican or Mexican American	1,134	1,146	1,379	873	1,175	1,166	1,306	1,597	1,745	2,065	1,857
Not Hispanic or Latino	31,647	31,513	28,775	24,167	22,494	21,208	21,545	30,701	30,452	30,364	31,562 ⁴
White, single race	27,221	27,138	24,857	21,099	19,807	18,340	18,904	25,705	25,860	26,163	26,911
Black or African American, single race	3,513	3,264	2,552	1,882	1,658	1,831	1,885	3,311	3,283	2,757	3,019
American Indian or Alaska Native, single race	339	326	273	179	201	*111	*104	*345	*198	†	*281
Asian, single race	507	659	430	366	349	388	231	657	549	530	550
Education, 25 years and over											
Less than a high school diploma	3,947	3,075	2,873	2,164	2,351	1,814	2,171	2,897	3,146	3,764	2,617
High school diploma or GED ⁴	6,418	6,099	5,605	4,504	4,188	3,660	3,891	5,910	6,082	5,735	6,024
Some college	6,195	6,389	5,791	4,552	4,476	4,224	4,666	6,184	6,390	6,294	7,023
Bachelor's degree or higher	4,178	4,612	4,048	3,632	3,495	3,267	3,827	4,691	4,863	5,198	5,388
Percent of poverty level ⁵											
Below 100%	4,992	4,465	3,967	2,870	3,029	3,129	3,209	4,668	4,279	5,153	4,593
100%–199%	7,195	5,494	5,369	4,787	4,136	4,413	4,337	6,252	6,549	7,038	6,885
200%–399%	11,185	11,867	10,462	8,183	8,334	7,463	7,232	9,725	10,302	9,459	11,304
400% or more	10,852	12,153	11,208	9,801	8,830	8,058	8,797	12,504	12,071	11,606	11,565
Health insurance coverage ⁶ under 65 years											
Private	21,548	22,787	20,467	17,276	16,134	14,758	14,867	21,307	19,672	18,412	20,157
Medicaid	2,739	2,776	2,427	2,004	2,079	2,571	2,383	3,667	3,961	4,321	4,285
Other	870	915	643	709	527	472	405	872	1,140	1,048	914
Uninsured	4,409	3,708	3,837	3,214	2,826	2,690	2,989	3,678	3,240	3,945	4,270

See footnotes and at end of table.

Table 1a. Annualized frequencies of injury episodes, by year and selected characteristics: United States, 1997–2007—Con.

Selected characteristic	1997	1998	1999	2000 ¹	2001	2002	2003	2004 ¹	2005	2006	2007
Place of residence						Weighted number of episodes in thousands					
Large MSA ⁷	15,196	15,857	13,578	11,370	10,258	8,950	9,878	13,668	15,444	14,686	14,954
Small											
MSA	11,723	10,320	10,240	8,730	8,134	8,375	8,402	12,165	10,747	12,220	12,834
Not in MSA	7,372	7,837	7,207	5,564	5,937	5,738	5,295	7,316	7,011	6,349	6,560
Region											
Northeast	6,727	6,799	5,899	4,978	4,559	3,933	4,150	6,408	5,431	5,334	5,496
Midwest	8,698	8,795	8,190	7,162	6,289	6,523	6,306	9,659	9,498	9,391	9,934
South	12,201	11,353	9,955	8,415	8,598	7,967	8,253	10,061	11,008	11,598	11,360
West	6,665	7,065	6,980	5,110	4,883	4,639	4,866	7,021	7,265	6,933	7,558

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

¹The NHIS injury section was revised in 2000 and in 2004. Therefore, the 11-year period from 1997 through 2007 can be divided into three time periods: 1997–1999, 2000–2003, and 2004–2007. Estimates across these three time periods are not comparable.

²Age-specific estimates are not age-adjusted.

³Hispanic or Latino origin may be of any race or combination of races. Similarly, the category “not Hispanic or Latino” refers to all persons who are not of Hispanic or Latino origin, regardless of race. In the years 1997–1998, the Asian category included Native Hawaiian or Other Pacific Islander.

⁴GED is General Educational Development high school equivalency diploma.

⁵Percent of poverty level is based on family income and family size and composition using U.S. Census Bureau poverty thresholds. Family income was imputed for 24–34% of persons in 1997–2006 and 33% of persons in 2007. See Appendix I, “Family income;” “Poverty status.”

⁶Classification of health insurance coverage is based on a hierarchy of mutually exclusive categories. Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. See Appendix I, “Health insurance coverage.”

⁷MSA is metropolitan statistical area. Starting with 2006 data, MSA status is determined using 2000 census data and the 2000 standards for defining MSAs. For data prior to 2006, see Appendix I, “Place of residence.”

NOTES: Further information on terms used in tables can be found in Appendix I.

Table 2. Percent distribution of injury episodes and conditions and selected injury characteristics, by year: United States, 1997–2007

	1997 ¹	1998 ¹	1999 ¹	2000 ²	2001	2002	2003	2004 ²	2005	2006	2007
Percent of episodes (standard error)											
External causes, all	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fall	33.0 (1.0)	30.9 (1.0)	29.6 (1.0)	26.9 (1.1)	32.7 (1.2)	30.7 (1.2)	33.9 (1.3)	36.3 (1.6)	35.5 (1.7)	39.3 (2.2)	37.5 (2.0)
Struck by or against	15.2 (0.7)	14.4 (0.7)	17.3 (0.8)	18.5 (1.0)	12.8 (0.8)	16.2 (1.0)	12.7 (0.9)	11.6 (1.1)	12.6 (1.1)	11.8 (1.4)	13.5 (1.4)
Transportation	13.0 (0.7)	13.1 (0.7)	15.6 (0.8)	14.4 (0.9)	14.2 (0.9)	16.2 (1.0)	16.0 (1.0)	11.1 (1.1)	11.5 (1.3)	10.2 (1.3)	11.0 (1.4)
Overexertion	10.8 (0.6)	13.8 (0.7)	12.3 (0.7)	11.3 (0.8)	13.3 (0.8)	13.2 (0.9)	14.2 (0.9)	14.4 (1.2)	13.5 (1.2)	13.7 (1.6)	11.0 (1.3)
Cut or pierce	7.8 (0.5)	8.3 (0.5)	7.2 (0.6)	8.5 (0.7)	7.9 (0.6)	7.2 (0.7)	8.0 (0.7)	8.6 (1.0)	6.8 (0.9)	7.9 (1.1)	8.9 (1.3)
Other causes (injury) ³	14.6 (0.7)	14.6 (0.8)	14.0 (0.8)	17.5 (0.9)	15.7 (0.8)	14.4 (0.9)	12.7 (0.9)	16.9 (1.3)	18.4 (1.4)	15.1 (1.5)	16.8 (1.5)
Poisoning	5.7 (0.5)	4.9 (0.5)	4.0 (0.5)	2.7 (0.4)	3.3 (0.6)	2.1 (0.4)	2.4 (0.5)	1.1 (0.3)	1.6 (0.5)	*1.9 (0.7)	*1.4 (0.4)
Place of occurrence of episode, all ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	24.2 (0.9)	23.1 (0.9)	18.4 (0.9)	22.8 (1.0)	25.2 (1.0)	23.6 (1.1)	24.7 (1.2)	22.8 (1.0)	29.0 (1.6)	30.8 (2.1)	27.3 (1.8)
Home (outside)	17.7 (0.7)	17.5 (0.8)	22.2 (0.9)	17.7 (1.1)	18.1 (0.9)	17.7 (1.0)	20.6 (1.1)	17.7 (1.1)	17.1 (1.3)	19.6 (1.8)	17.0 (1.5)
School, child care center, or preschool	6.4 (0.5)	6.6 (0.5)	7.8 (0.6)	6.8 (0.6)	6.0 (0.6)	8.4 (0.7)	5.3 (0.6)	6.8 (0.6)	7.3 (1.0)	5.3 (0.8)	7.2 (1.0)
Hospital or residential institution	2.8 (0.4)	1.4 (0.2)	1.9 (0.3)	1.5 (0.3)	2.3 (0.4)	1.5 (0.3)	1.7 (0.4)	1.5 (0.3)	1.9 (0.5)	*2.3 (0.9)	2.7 (0.6)
Street including highway, sidewalk, or parking lot	15.1 (0.8)	15.1 (0.8)	16.4 (0.8)	14.1 (0.9)	15.4 (0.9)	16.5 (1.0)	16.0 (1.1)	14.1 (0.9)	13.0 (1.4)	10.6 (1.3)	10.6 (1.3)
Recreation-sport facility, recreation area, lake, river, or pool	11.6 (0.7)	13.2 (0.7)	12.2 (0.7)	14.6 (0.9)	12.4 (0.8)	12.6 (0.9)	12.5 (0.8)	14.6 (0.9)	13.8 (1.2)	12.3 (1.5)	15.0 (1.6)
Commercial area-industrial, construction area, or farm	7.6 (0.6)	6.8 (0.6)	6.7 (0.6)	6.8 (0.7)	5.8 (0.5)	5.4 (0.6)	4.5 (0.5)	6.8 (0.7)	3.9 (0.7)	5.3 (1.0)	5.9 (1.1)
Commercial-trade or service area	6.0 (0.5)	6.0 (0.5)	4.6 (0.5)	5.6 (0.6)	4.3 (0.5)	4.4 (0.5)	4.5 (0.6)	5.6 (0.6)	4.1 (0.6)	4.5 (0.9)	4.1 (0.9)
Other public building	2.8 (0.3)	2.8 (0.3)	3.0 (0.4)	1.9 (0.3)	1.9 (0.3)	2.3 (0.4)	2.8 (0.5)	1.9 (0.3)	1.6 (0.4)	*1.5 (0.6)	3.2 (0.8)
Other places	4.8 (0.4)	5.0 (0.5)	5.7 (0.5)	5.9 (0.6)	7.1 (0.6)	5.8 (0.6)	6.0 (0.6)	5.9 (0.6)	6.4 (0.8)	5.9 (1.0)	5.7 (0.9)
Activity at time of episode, all ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle	7.5 (0.5)	7.2 (0.5)	10.7 (0.7)	9.6 (0.7)	10.0 (0.8)	11.5 (0.9)	11.5 (0.9)	7.6 (0.9)	8.4 (1.3)	5.5 (0.9)	7.0 (1.1)
Working at paid job	19.0 (0.8)	18.2 (0.8)	15.9 (0.9)	18.0 (0.9)	15.4 (0.9)	15.0 (1.0)	13.9 (0.9)	15.6 (1.3)	12.1 (1.2)	13.7 (1.6)	16.8 (1.5)
Working around house or yard	10.4 (0.6)	11.1 (0.6)	11.7 (0.7)	12.0 (0.8)	14.4 (0.9)	11.0 (0.8)	14.1 (0.9)	14.6 (1.3)	14.9 (1.3)	15.5 (1.6)	12.9 (1.5)
Attending school	2.8 (0.3)	2.4 (0.3)	2.9 (0.4)	2.7 (0.4)	2.5 (0.4)	3.4 (0.4)	2.2 (0.4)	3.2 (0.7)	2.3 (0.5)	1.7 (0.5)	2.2 (0.5)
Sports and exercise	13.4 (0.7)	13.5 (0.7)	13.6 (0.8)	14.6 (0.9)	13.8 (0.8)	15.6 (0.9)	13.3 (0.9)	15.0 (1.2)	15.9 (1.3)	14.4 (1.6)	17.9 (1.7)
Leisure activities (excluding sports)	21.4 (0.8)	22.4 (0.9)	21.9 (1.0)	24.5 (1.1)	21.4 (1.0)	23.1 (1.1)	21.4 (1.0)	26.9 (1.7)	25.0 (1.5)	24.7 (1.9)	22.5 (1.7)
Other activity ⁴	24.5 (0.8)	23.1 (0.9)	22.4 (0.9)	16.7 (0.9)	21.4 (1.0)	18.6 (1.0)	22.1 (1.1)	15.4 (1.3)	19.3 (1.3)	23.6 (1.9)	18.8 (1.6)
Percent of conditions ⁵ (standard error)											
Nature of condition, all	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	16.1 (0.7)	16.1 (0.7)	15.9 (0.8)	15.5 (0.8)	17.3 (0.9)	16.3 (1.0)	16.2 (1.0)	12.5 (1.0)	17.0 (1.2)	17.0 (1.5)	14.7 (1.3)
Sprain or strain	26.4 (0.9)	27.0 (1.0)	25.7 (1.0)	21.8 (1.0)	20.3 (0.9)	21.0 (1.2)	22.6 (1.1)	33.0 (1.6)	29.5 (1.5)	30.7 (1.9)	30.7 (1.9)
Open wounds	20.1 (0.8)	19.1 (0.8)	18.7 (0.8)	17.7 (0.9)	17.0 (0.9)	15.4 (0.9)	17.1 (1.0)	15.8 (1.2)	16.1 (1.1)	16.7 (1.5)	17.1 (1.5)
Contusions or superficial	15.1 (0.7)	15.4 (0.8)	13.5 (0.8)	12.6 (1.0)	10.1 (0.7)	13.4 (1.0)	11.2 (0.9)	24.9 (1.6)	24.0 (1.4)	22.8 (1.8)	22.2 (1.8)
Other	22.2 (0.8)	22.5 (1.0)	26.2 (1.0)	32.3 (1.1)	35.4 (1.2)	33.9 (1.3)	32.8 (1.4)	13.7 (1.3)	13.4 (1.2)	12.9 (1.5)	15.3 (1.6)
Body region of condition, all	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	18.3 (0.7)	17.9 (0.8)	17.7 (0.8)	15.7 (0.8)	16.3 (0.9)	18.6 (1.0)	17.0 (0.9)	14.6 (1.2)	16.6 (1.3)	16.5 (1.7)	15.8 (1.6)
Torso or spine and back	20.8 (0.8)	19.5 (0.8)	21.0 (0.9)	17.2 (0.9)	16.9 (0.9)	17.3 (1.0)	17.8 (0.9)	18.7 (1.3)	17.8 (1.3)	17.7 (1.6)	17.5 (1.5)
Upper extremity	29.5 (0.8)	29.9 (0.9)	28.6 (0.9)	29.2 (1.0)	31.1 (1.1)	28.8 (1.1)	28.9 (1.1)	30.1 (1.5)	30.6 (1.5)	27.4 (1.7)	29.0 (1.8)
Lower extremity	27.3 (0.8)	28.4 (0.9)	28.0 (0.9)	28.2 (1.1)	26.8 (1.1)	27.7 (1.2)	28.1 (1.2)	30.8 (1.6)	30.5 (1.6)	33.6 (2.0)	30.8 (2.0)
Unclassifiable by site	4.0 (0.3)	4.3 (0.5)	4.8 (0.4)	9.7 (0.7)	8.9 (0.8)	7.7 (0.6)	8.2 (0.8)	5.7 (0.7)	4.6 (0.6)	4.8 (1.0)	6.9 (1.0)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

¹In the years 1997–1999, estimates for place of occurrence and activity exclude poisoning as respondents were not asked to report a place of occurrence or activity for episodes of poisoning.

²The NHIS injury section was revised in 2000 and in 2004. Therefore, the 11-year period from 1997 through 2007 can be divided into three time periods: 1997–1999, 2000–2003, and 2004–2007. Estimates across these three time periods are not comparable.

³Includes other specified and unknown causes.

⁴Includes unpaid work such as housework, shopping, volunteer work, sleeping, resting, eating, drinking, cooking, hands-on care from another person, and other unspecified activities.

⁵Injury condition is a departure from a state of physical well-being (e.g., fractured femur, low back strain) due to injury or poisoning episode (e.g., fall). See Appendix I, "Injury condition." In the years 1997–1999, up to four conditions could be reported for a single injury episode but no conditions were reported for poisoning. In the years 2000–2003 up to four injury and poisoning conditions could be reported. In the years 2004–2007 up to eight injury and poisoning conditions could be reported.

NOTES: Further information on terms used in tables can be found in Appendix I.

Table 2a. Annualized frequencies of injury episodes and conditions, by year and selected injury characteristics: United States, 1997–2007

	1997 ¹	1998 ¹	1999 ¹	2000 ²	2001	2002	2003	2004 ²	2005	2006	2007
Weighted number of episodes in thousands											
External causes, all	34,291	34,013	31,024	25,664	24,330	23,063	23,575	33,149	33,202	33,256	34,347
Fall	11,315	10,523	9,170	6,912	7,957	7,078	8,002	12,030	11,798	13,071	12,874
Struck by or against	5,227	4,886	5,371	4,759	3,112	3,734	2,990	3,852	4,188	3,935	4,653
Transportation	4,445	4,459	4,837	3,704	3,459	3,726	3,775	3,690	3,832	3,396	3,779
Overexertion	3,698	4,679	3,828	2,893	3,232	3,049	3,355	4,763	4,479	4,572	3,773
Cut or pierce	2,670	2,837	2,227	2,191	1,928	1,672	1,881	2,844	2,274	2,628	3,050
Other causes (injury) ³	4,992	4,977	4,335	4,503	3,832	3,330	3,003	5,595	6,094	5,018	5,753
Poisoning	1,945	1,654	1,256	703	810	475	568	375	536	*636	*464
Place of occurrence of episode, all ¹	32,346	32,360	29,768	25,664	24,330	23,063	23,575	33,149	33,202	33,256	34,347
Home (inside)	7,825	7,468	5,488	5,852	6,139	5,450	5,826	8,567	9,641	10,248	9,390
Home (outside)	5,736	5,663	6,622	4,538	4,394	4,087	4,854	6,701	5,684	6,521	5,826
School, child care center, or preschool	2,064	2,121	2,330	1,756	1,453	1,927	1,253	2,571	2,410	1,771	2,483
Hospital or residential institution	908	443	569	384	559	335	392	502	629	*766	916
Street including highway, sidewalk, or parking lot	4,883	4,890	4,888	3,617	3,750	3,805	3,765	4,310	4,331	3,522	3,627
Recreation-sport facility, recreation area, lake, river, or pool	3,737	4,267	3,635	3,745	3,021	2,908	2,947	3,941	4,585	4,089	5,164
Commercial area-industrial, construction area, or farm	2,449	2,201	1,998	1,754	1,401	1,252	1,071	1,766	1,296	1,769	2,040
Commercial-trade or service area	1,952	1,948	1,375	1,426	1,054	1,005	1,058	1,314	1,367	1,486	1,392
Other public building	920	912	890	500	468	537	658	837	518	*509	1,104
Other places, not specified	1,548	1,605	1,688	1,521	1,725	1,332	1,421	2,151	2,134	1,955	1,962
Activity at time of episode, all ¹	32,346	32,360	29,768	25,664	24,330	23,063	23,575	33,149	33,202	33,256	34,347
Driving or riding in a motor vehicle	2,432	2,320	3,181	2,461	2,426	2,644	2,721	2,534	2,803	1,813	2,417
Working at paid job	6,136	5,891	4,748	4,619	3,738	3,464	3,279	5,177	4,033	4,566	5,773
Working around house or yard	3,363	3,596	3,487	3,084	3,507	2,548	3,330	4,831	4,963	5,170	4,433
Attending school	915	765	868	697	615	780	510	1,069	754	572	760
Sports and exercise	4,328	4,359	4,048	3,737	3,350	3,588	3,146	4,971	5,269	4,778	6,133
Leisure activities (excluding sports)	6,907	7,236	6,533	6,289	5,216	5,320	5,044	8,908	8,298	8,201	7,744
Other activity ⁴	7,923	7,485	6,661	4,296	5,206	4,282	5,202	5,096	6,404	7,854	6,451
Weighted number of conditions ⁵ in thousands											
Nature of condition, all	38,807	38,208	35,484	30,162	28,472	27,560	27,875	42,976	41,587	43,807	43,439
Fractures	6,240	6,149	5,654	4,686	4,922	4,488	4,522	5,390	7,054	7,428	6,400
Sprain or strain	10,260	10,302	9,126	6,575	5,767	5,783	6,303	14,183	12,275	13,428	13,350
Open wounds	7,812	7,302	6,622	5,348	4,832	4,252	4,774	6,775	6,694	7,330	7,424
Contusions or superficial	5,867	5,867	4,778	3,801	2,883	3,683	3,120	10,721	9,976	9,983	9,636
Other	8,628	8,587	9,304	9,752	10,069	9,354	9,155	5,907	5,587	5,638	6,629
Body region of condition, all	38,807	38,208	35,484	30,162	28,472	27,560	27,875	42,976	41,587	43,807	43,439
Head and neck	7,106	6,832	6,267	4,737	4,645	5,113	4,730	6,281	6,910	7,225	6,845
Torso or spine and back	8,088	7,438	7,437	5,194	4,810	4,763	4,957	8,057	7,390	7,770	7,600
Upper extremity	11,464	11,420	10,150	8,804	8,854	7,928	8,065	12,951	12,717	12,016	12,586
Lower extremity	10,593	10,868	9,930	8,513	7,638	7,625	7,843	13,241	12,672	14,715	13,397
Unclassifiable by site	1,556	1,651	1,700	2,914	2,525	2,131	2,278	2,447	1,898	2,081	3,010

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

¹In the years 1997–1999, estimates for place of occurrence and activity exclude poisoning as respondents were not asked to report a place of occurrence or activity for episodes of poisoning.

²The NHIS injury section was revised in 2000 and in 2004. Therefore, the 11-year period from 1997 through 2007 can be divided into three time periods: 1997–1999, 2000–2003, and 2004–2007. Estimates across these three time periods are not comparable.

³Includes other specified and unknown causes.

⁴Includes unpaid work such as housework, shopping, volunteer work, sleeping, resting, eating, drinking, cooking, hands-on care from another person, and other unspecified activities.

⁵Injury condition is a departure from a state of physical well-being (e.g., fractured femur, low back strain) due to injury or poisoning episode (e.g., fall). See Appendix I, "Injury condition." In the years 1997–1999, up to four conditions could be reported for a single injury episode but no conditions were reported for poisoning. In the years 2000–2003, up to four injury and poisoning conditions could be reported. In the years 2004–2007, up to eight injury and poisoning conditions could be reported.

NOTES: Further information on terms used in tables can be found in Appendix I.

Table 3. Age-adjusted annualized rates of injury episodes, by selected characteristics for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999

2004–2007	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce	Poisoning
Rate per 1,000 population (standard error)							
Total (crude)	114.5 (2.2)	42.5 (1.4)	14.2 (0.8)	12.6 (0.8)	15.0 (0.8)	9.2 (0.7)	1.7 (0.3)
Total (age-adjusted)	114.8 (2.2)	42.8 (1.4)	14.3 (0.8)	12.5 (0.8)	15.0 (0.8)	9.3 (0.7)	1.7 (0.3)
Sex							
Male	123.2 (3.4)	39.0 (2.0)	17.3 (1.3)	13.3 (1.1)	15.8 (1.2)	12.4 (1.1)	1.5 (0.4)
Female	105.2 (3.0)	45.6 (1.9)	11.2 (1.0)	11.6 (0.9)	14.1 (1.1)	6.2 (0.7)	1.9 (0.4)
Age ¹							
Under 15 years	112.1 (5.1)	48.5 (3.4)	20.0 (2.0)	8.3 (1.3)	6.4 (1.1)	6.9 (1.2)	*2.4 (0.8)
15–24 years	142.3 (6.9)	37.2 (3.6)	22.5 (2.6)	22.0 (2.6)	20.9 (2.6)	9.0 (1.8)	*3.0 (1.0)
25–44 years	106.9 (4.1)	26.9 (2.0)	13.5 (1.5)	12.2 (1.4)	20.4 (1.6)	12.9 (1.5)	*0.8 (0.3)
45–64 years	101.4 (4.0)	37.2 (2.5)	9.3 (1.2)	13.2 (1.5)	15.1 (1.7)	8.9 (1.2)	1.9 (0.5)
65–74 years	100.3 (8.2)	53.9 (6.0)	*4.1 (1.4)	10.5 (3.0)	8.7 (2.4)	9.6 (2.8)	†
75 years and over	165.5 (11.4)	121.8 (9.7)	9.5 (2.8)	*6.0 (2.1)	12.6 (3.7)	†	†
Hispanic or Latino origin and race ²							
Hispanic or Latino	66.9 (4.0)	27.8 (2.9)	6.9 (1.2)	7.8 (1.1)	7.6 (1.3)	6.5 (1.2)	†
Mexican or Mexican American	67.1 (5.4)	29.5 (4.2)	7.5 (1.5)	8.1 (1.5)	6.9 (1.3)	7.2 (1.9)	†
Not Hispanic or Latino	124.0 (2.6)	45.5 (1.6)	15.8 (0.9)	13.3 (0.9)	16.4 (0.9)	9.9 (0.8)	1.9 (0.3)
White, single race	135.0 (3.1)	50.7 (1.9)	17.3 (1.1)	13.5 (1.0)	18.0 (1.1)	11.1 (0.9)	2.0 (0.4)
Black or African American, single race	86.2 (5.4)	24.8 (2.7)	9.9 (1.6)	15.3 (2.8)	12.2 (1.9)	4.4 (1.0)	*1.6 (0.6)
American Indian or Alaska Native, single race	150.3 (33.0)	*50.7 (21.7)	*42.8 (15.4)	†	†	†	–
Asian, single race	46.0 (6.1)	11.6 (3.1)	*4.4 (1.9)	*6.3 (2.0)	*5.7 (1.9)	*3.7 (1.6)	†
Education, 25 years and over							
Less than a high school diploma	102.0 (6.8)	40.0 (3.9)	9.9 (2.1)	11.9 (2.3)	16.7 (3.3)	9.1 (1.9)	†
High school diploma or GED ³	109.1 (4.9)	41.7 (3.1)	10.2 (1.7)	9.1 (1.4)	15.3 (1.8)	13.2 (1.8)	*1.1 (0.5)
Some college	137.4 (5.9)	54.5 (4.0)	12.0 (1.6)	13.4 (1.8)	20.1 (2.0)	13.6 (2.1)	*2.2 (0.7)
Bachelor's degree or higher	99.0 (5.2)	35.9 (3.4)	11.9 (1.8)	13.1 (1.9)	16.4 (1.9)	5.9 (1.1)	†
Health insurance coverage ⁴ under 65 years							
Private	117.7 (3.1)	37.1 (1.7)	16.7 (1.1)	12.2 (1.0)	17.0 (1.1)	10.9 (1.0)	1.7 (0.4)
Medicaid	138.6 (9.5)	62.8 (6.6)	16.6 (3.4)	15.2 (2.8)	14.7 (2.9)	12.7 (3.2)	*2.2 (0.9)
Other	141.1 (17.2)	47.5 (10.0)	25.0 (6.8)	*16.0 (4.9)	*17.8 (5.7)	*14.3 (4.9)	†
Uninsured	85.6 (5.3)	22.2 (2.6)	11.5 (2.1)	13.6 (2.1)	11.8 (1.8)	6.1 (1.4)	*1.2 (0.5)
Place of residence							
Large MSA ⁵	100.8 (3.1)	38.8 (1.9)	12.3 (1.0)	11.0 (1.1)	12.1 (1.0)	7.3 (0.8)	1.3 (0.3)
Small MSA	128.0 (4.3)	46.7 (2.7)	16.3 (1.5)	14.7 (1.5)	17.2 (1.6)	11.5 (1.3)	2.2 (0.6)
Not in MSA	133.0 (5.6)	48.0 (3.1)	16.8 (1.9)	12.5 (1.8)	20.1 (2.0)	10.6 (1.7)	*1.7 (0.6)
Region							
Northeast	105.5 (4.9)	42.9 (3.1)	11.6 (1.7)	8.9 (1.4)	15.2 (1.9)	6.1 (1.2)	*1.9 (0.7)
Midwest	140.1 (4.9)	50.0 (3.3)	18.9 (1.7)	11.9 (1.6)	21.6 (2.0)	12.0 (1.7)	1.5 (0.4)
South	105.0 (3.6)	40.1 (2.1)	12.9 (1.2)	14.0 (1.5)	12.1 (1.2)	8.4 (1.0)	*1.2 (0.4)
West	111.7 (4.7)	39.2 (2.8)	14.0 (1.7)	13.5 (1.6)	12.7 (1.4)	10.4 (1.5)	*2.6 (0.8)

See footnotes and at end of table.

Table 3. Age-adjusted annualized rates of injury episodes, by selected characteristics for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999—Con.

2000–2003	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce	Poisoning
Rate per 1,000 population (standard error)							
Total (crude)	86.6 (1.3)	26.9 (0.6)	13.1 (0.4)	13.2 (0.5)	11.3 (0.4)	6.9 (0.3)	2.6 (0.2)
Total (age-adjusted)	86.7 (1.3)	27.1 (0.6)	13.0 (0.4)	13.1 (0.5)	11.3 (0.4)	6.9 (0.3)	2.6 (0.2)
Sex							
Male	94.7 (1.8)	25.0 (0.9)	17.3 (0.7)	14.2 (0.6)	12.7 (0.6)	8.9 (0.5)	2.1 (0.3)
Female	78.0 (1.6)	28.6 (0.9)	8.8 (0.5)	12.1 (0.6)	9.8 (0.5)	4.9 (0.3)	3.2 (0.3)
Age ¹							
Under 15 years	86.6 (2.4)	30.9 (1.4)	18.6 (1.1)	9.1 (0.8)	3.6 (0.5)	6.2 (0.7)	4.4 (0.6)
15–24 years	113.5 (3.6)	22.8 (1.6)	25.9 (1.7)	22.1 (1.5)	15.2 (1.3)	9.2 (0.9)	3.5 (0.8)
25–44 years	87.4 (2.1)	19.4 (0.9)	11.1 (0.7)	16.2 (0.9)	15.7 (0.9)	8.6 (0.6)	1.9 (0.3)
45–64 years	74.0 (2.3)	24.3 (1.4)	7.1 (0.6)	10.7 (0.8)	13.3 (0.9)	5.9 (0.5)	1.8 (0.3)
65–74 years	59.9 (3.5)	30.9 (2.7)	3.6 (0.7)	8.6 (1.3)	5.4 (1.0)	3.4 (0.8)	*1.3 (0.5)
75 years and over	98.1 (5.1)	67.2 (4.2)	5.2 (1.1)	5.8 (1.1)	6.1 (1.2)	2.6 (0.8)	*2.6 (0.8)
Hispanic or Latino origin and race ²							
Hispanic or Latino	51.4 (2.1)	18.5 (1.4)	5.9 (0.6)	9.5 (1.0)	5.3 (0.5)	2.9 (0.4)	2.1 (0.5)
Mexican or Mexican American	51.4 (2.8)	17.5 (1.9)	5.2 (0.7)	10.2 (1.3)	6.2 (0.7)	2.9 (0.5)	*2.1 (0.7)
Not Hispanic or Latino	92.4 (1.4)	28.4 (0.7)	14.3 (0.5)	13.7 (0.5)	12.1 (0.5)	7.5 (0.3)	2.7 (0.3)
White, single race	102.0 (1.7)	31.0 (0.8)	15.8 (0.6)	14.2 (0.6)	13.8 (0.6)	8.5 (0.4)	3.1 (0.3)
Black or African American, single race	54.2 (2.4)	18.3 (1.4)	8.7 (0.9)	11.7 (1.1)	5.6 (0.8)	3.3 (0.5)	1.3 (0.3)
American Indian or Alaska Native, single race	90.9 (13.0)	31.1 (7.4)	*15.5 (5.0)	*16.1 (5.5)	*17.2 (7.3)	†	†
Asian, single race	32.8 (3.6)	10.7 (2.0)	3.9 (1.1)	9.0 (1.9)	*4.1 (1.2)	*2.9 (1.1)	–
Education, 25 years and over							
Less than a high school diploma	73.6 (3.2)	26.7 (1.8)	6.8 (1.0)	12.8 (1.4)	9.5 (1.2)	5.5 (0.8)	1.8 (0.5)
High school diploma or GED ³	77.8 (2.4)	23.0 (1.3)	7.9 (0.8)	12.3 (1.0)	13.6 (1.0)	5.6 (0.6)	1.4 (0.3)
Some college	97.9 (3.1)	33.8 (1.9)	9.2 (0.8)	14.4 (1.0)	14.9 (1.0)	9.0 (0.8)	2.8 (0.5)
Bachelor's degree or higher	80.4 (3.0)	26.8 (2.0)	9.7 (0.9)	11.6 (1.0)	14.2 (1.2)	6.6 (0.7)	1.8 (0.4)
Health insurance coverage ⁴ under 65 years							
Private	93.3 (1.6)	25.2 (0.8)	16.1 (0.6)	13.8 (0.6)	13.7 (0.6)	7.7 (0.4)	2.7 (0.3)
Medicaid	100.9 (5.2)	32.5 (2.7)	12.6 (1.6)	21.0 (2.4)	7.7 (1.3)	7.3 (1.1)	6.3 (1.4)
Other	91.9 (9.0)	25.5 (4.0)	15.8 (4.1)	10.5 (2.7)	*14.8 (5.1)	*7.7 (2.5)	*2.7 (1.2)
Uninsured	69.6 (2.7)	18.2 (1.3)	10.2 (1.0)	13.9 (1.1)	8.1 (0.9)	6.5 (0.8)	1.9 (0.4)
Place of residence							
Large MSA ⁵	76.2 (1.6)	25.0 (0.9)	11.8 (0.6)	12.4 (0.6)	8.8 (0.5)	5.0 (0.4)	2.4 (0.3)
Small MSA	93.4 (2.4)	27.2 (1.1)	13.8 (0.8)	13.7 (0.9)	13.3 (0.9)	8.3 (0.6)	2.9 (0.4)
Not in MSA	101.8 (3.0)	32.0 (1.6)	14.7 (1.1)	13.9 (1.0)	13.8 (0.9)	9.1 (0.9)	2.7 (0.5)
Region							
Northeast	83.9 (2.9)	29.8 (1.6)	11.4 (0.9)	11.1 (1.1)	10.9 (0.9)	6.1 (0.6)	2.6 (0.5)
Midwest	97.8 (2.6)	29.3 (1.2)	16.2 (1.1)	14.6 (1.0)	13.2 (0.8)	7.9 (0.6)	2.6 (0.4)
South	82.6 (2.2)	25.0 (1.1)	12.2 (0.7)	13.9 (0.8)	9.6 (0.7)	6.7 (0.5)	2.7 (0.4)
West	83.9 (2.4)	25.9 (1.2)	12.2 (0.8)	12.1 (0.9)	12.3 (1.0)	6.6 (0.7)	2.7 (0.5)

See footnotes and at end of table.

Table 3. Age-adjusted annualized rates of injury episodes, by selected characteristics for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999—Con.

1997–1999	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce	Poisoning
Rate per 1,000 population (standard error)							
Total (crude)	123.0 (1.6)	38.4 (0.8)	19.2 (0.6)	17.0 (0.5)	15.1 (0.5)	9.6 (0.4)	6.0 (0.4)
Total (age-adjusted)	122.9 (1.6)	38.9 (0.8)	19.0 (0.6)	16.9 (0.5)	15.1 (0.5)	9.5 (0.4)	6.0 (0.4)
Sex							
Male	137.2 (2.3)	34.5 (1.1)	25.4 (1.0)	19.0 (0.8)	17.3 (0.8)	13.4 (0.7)	5.5 (0.4)
Female	107.4 (2.1)	42.0 (1.2)	12.4 (0.7)	14.9 (0.7)	12.9 (0.7)	5.7 (0.4)	6.4 (0.5)
Age ¹							
Under 15 years	118.4 (3.1)	42.2 (1.8)	26.0 (1.5)	12.0 (0.9)	4.2 (0.6)	7.7 (0.8)	9.7 (0.9)
15–24 years	161.7 (4.9)	35.6 (2.3)	37.1 (2.3)	30.0 (2.0)	17.6 (1.6)	13.3 (1.3)	5.4 (0.9)
25–44 years	125.8 (2.8)	28.0 (1.2)	17.1 (1.0)	20.5 (1.1)	21.2 (1.1)	12.6 (0.8)	5.4 (0.6)
45–64 years	101.2 (3.0)	32.1 (1.5)	10.4 (0.9)	12.4 (0.9)	19.8 (1.2)	7.5 (0.8)	3.9 (0.6)
65–74 years	101.2 (5.2)	51.0 (3.6)	6.5 (1.2)	13.3 (1.8)	8.8 (1.5)	6.5 (1.4)	4.6 (1.1)
75 years and over	139.2 (7.0)	99.6 (6.0)	6.4 (1.4)	6.8 (1.5)	8.3 (1.7)	*2.7 (0.8)	5.5 (1.3)
Hispanic or Latino origin and race ²							
Hispanic or Latino	81.0 (3.1)	28.7 (1.9)	10.9 (1.0)	12.3 (1.1)	7.4 (0.9)	5.3 (0.7)	4.0 (0.7)
Mexican or Mexican American	75.8 (3.8)	28.8 (2.7)	10.3 (1.3)	10.6 (1.4)	6.5 (1.1)	5.5 (0.9)	3.4 (0.9)
Not Hispanic or Latino	129.0 (1.8)	40.4 (0.9)	20.2 (0.7)	17.5 (0.6)	16.2 (0.6)	10.0 (0.5)	6.3 (0.4)
White, single race	138.0 (2.1)	43.4 (1.1)	22.2 (0.8)	17.4 (0.7)	17.7 (0.7)	11.0 (0.5)	6.5 (0.5)
Black or African American, single race	95.1 (3.6)	30.5 (2.1)	12.9 (1.2)	19.8 (1.8)	9.7 (1.1)	5.8 (0.8)	4.4 (0.8)
American Indian or Alaska Native, single race	195.9 (24.3)	59.5 (15.4)	*28.0 (9.9)	22.0 (6.2)	*14.8 (5.6)	*21.2 (7.7)	*28.1 (10.5)
Asian, single race	60.6 (6.2)	16.2 (3.1)	9.0 (2.0)	13.4 (2.9)	*6.0 (1.8)	*3.0 (1.3)	*3.5 (1.6)
Education, 25 years and over							
Less than a high school diploma	107.1 (4.2)	38.2 (2.3)	10.8 (1.3)	15.7 (1.6)	12.7 (1.4)	7.2 (1.0)	5.8 (1.4)
High school diploma or GED ³	116.7 (3.3)	39.0 (1.9)	11.6 (1.0)	15.9 (1.2)	19.3 (1.3)	9.8 (0.9)	4.4 (0.6)
Some college	140.2 (4.2)	46.7 (2.8)	15.4 (1.2)	19.3 (1.4)	21.8 (1.6)	11.2 (1.2)	5.9 (0.8)
Bachelor's degree or higher	104.9 (3.8)	32.4 (2.3)	13.2 (1.2)	14.0 (1.4)	18.2 (1.5)	9.0 (1.0)	3.9 (0.7)
Health insurance coverage ⁴ under 65 years							
Private	129.5 (2.1)	34.9 (1.0)	23.6 (0.8)	17.0 (0.7)	17.8 (0.7)	10.4 (0.6)	5.7 (0.5)
Medicaid	148.8 (7.6)	52.5 (4.6)	19.4 (2.3)	27.4 (3.2)	12.7 (2.2)	8.9 (1.6)	13.0 (2.3)
Other	134.8 (10.2)	45.2 (5.3)	16.3 (4.0)	17.9 (4.1)	15.0 (3.2)	*8.7 (2.7)	*9.0 (2.7)
Uninsured	95.1 (5.7)	27.3 (4.3)	13.4 (1.9)	16.3 (1.3)	10.0 (1.2)	8.8 (0.9)	4.0 (0.7)
Place of residence							
Large MSA ⁵	116.9 (2.3)	39.0 (1.2)	17.2 (0.8)	16.6 (0.8)	14.1 (0.7)	8.9 (0.6)	4.4 (0.4)
Small MSA	124.5 (2.8)	37.5 (1.4)	20.3 (1.1)	17.8 (0.9)	15.3 (1.0)	8.9 (0.7)	7.2 (0.8)
Not in MSA	134.5 (4.2)	40.6 (1.8)	20.7 (1.5)	16.1 (1.1)	17.2 (1.2)	11.9 (1.1)	7.5 (0.8)
Region							
Northeast	124.0 (4.0)	43.7 (2.4)	19.0 (1.2)	15.5 (1.3)	15.5 (1.3)	8.8 (0.8)	4.4 (0.6)
Midwest	128.2 (3.2)	39.6 (1.5)	21.0 (1.2)	15.8 (1.0)	16.1 (1.1)	10.9 (0.9)	6.6 (0.7)
South	116.8 (2.7)	36.7 (1.3)	17.3 (1.0)	18.0 (1.0)	13.6 (0.8)	9.0 (0.7)	5.6 (0.7)
West	126.4 (3.6)	37.1 (1.7)	19.5 (1.4)	17.6 (1.2)	16.5 (1.2)	9.4 (1.0)	7.2 (0.9)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

– Quantity zero.

¹Age-specific estimates are not age-adjusted.

²Hispanic or Latino origin may be of any race or combination of races. Similarly, the category “not Hispanic or Latino” refers to all persons who are not of Hispanic or Latino origin, regardless of race. In the years 1997–1998, the Asian category included Native Hawaiian or Other Pacific Islander.

³GED is General Educational Development high school equivalency diploma.

⁴Classification of health insurance coverage is based on a hierarchy of mutually exclusive categories. Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. See Appendix I, “Health insurance coverage.”

⁵MSA is metropolitan statistical area. Starting with 2006 data, MSA status is determined using 2000 census data and the 2000 standards for defining MSAs. For data prior to 2006, see Appendix I, “Place of residence.”

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 4. Age-adjusted annualized rates of injury episodes, by sex and selected characteristics for the leading external causes of injury: United States, 2004–2007

Male	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce	Poisoning
Age ¹							
Rate per 1,000 population (standard error)							
Under 15 years	124.6 (7.8)	54.3 (5.3)	24.3 (3.0)	9.5 (2.1)	6.0 (1.5)	8.1 (1.8)	†
15–24 years	184.0 (11.1)	46.6 (5.7)	32.7 (4.7)	24.0 (3.8)	25.9 (4.2)	13.6 (3.2)	*2.5 (1.1)
25–44 years	118.7 (6.1)	21.5 (2.4)	16.1 (2.4)	13.2 (2.1)	22.0 (2.4)	17.4 (2.3)	*1.2 (0.5)
45–64 years	98.1 (5.8)	26.5 (3.3)	9.9 (1.7)	14.2 (2.2)	15.0 (2.4)	12.2 (2.1)	†
65–74 years	97.3 (11.7)	46.0 (8.1)	†	*9.7 (3.7)	*7.8 (3.4)	*13.5 (4.9)	–
75 years and over	121.0 (14.8)	91.2 (13.0)	†	†	*9.4 (3.9)	–	†
Hispanic or Latino origin and race ²							
Hispanic or Latino	74.7 (6.2)	28.6 (4.4)	9.5 (2.1)	6.9 (1.4)	11.2 (2.5)	7.9 (1.9)	†
Mexican or Mexican American	77.1 (7.7)	31.5 (5.8)	9.4 (2.3)	7.6 (2.0)	9.9 (2.3)	*9.5 (2.9)	†
Not Hispanic or Latino	133.5 (3.9)	41.1 (2.2)	18.8 (1.4)	14.6 (1.4)	17.0 (1.3)	13.4 (1.2)	1.7 (0.5)
White, single race	143.7 (4.7)	46.2 (2.6)	20.8 (1.8)	14.6 (1.5)	18.0 (1.6)	14.9 (1.5)	*1.7 (0.6)
Black or African American, single race	97.4 (8.5)	20.0 (3.8)	9.8 (2.2)	19.3 (4.5)	17.9 (3.4)	*4.3 (1.5)	†
American Indian or Alaska Native, single race	*159.3 (51.2)	†	†	†	–	–	–
Asian, single race	57.8 (9.9)	*11.7 (4.9)	†	†	*7.0 (2.8)	*6.5 (3.0)	†
Education, 25 years and over							
Less than a high school diploma	90.7 (8.5)	24.4 (4.1)	10.0 (2.8)	15.4 (3.6)	13.0 (3.4)	12.2 (3.1)	†
High school diploma or GED ³	110.1 (7.1)	36.1 (4.4)	10.2 (2.4)	7.3 (1.7)	17.2 (2.8)	16.6 (2.9)	†
Some college	150.4 (9.5)	43.6 (5.4)	13.5 (2.8)	12.9 (2.7)	24.9 (3.4)	21.4 (3.9)	†
Bachelor's degree or higher	98.5 (7.2)	27.5 (4.2)	13.5 (2.5)	15.4 (3.0)	14.7 (2.5)	7.0 (1.7)	–
Health insurance coverage ⁴ under 65 years							
Private	134.5 (4.7)	36.0 (2.5)	21.1 (1.8)	13.2 (1.4)	19.3 (1.7)	14.9 (1.6)	*1.5 (0.6)
Medicaid	153.5 (17.1)	62.8 (10.5)	*26.7 (8.8)	*18.7 (6.1)	15.8 (4.5)	*15.9 (6.3)	†
Other	139.2 (24.2)	*31.2 (10.9)	*25.6 (10.8)	*21.8 (8.7)	*17.1 (7.7)	*22.1 (10.3)	†
Uninsured	91.1 (7.7)	21.4 (3.9)	10.9 (2.2)	14.2 (3.0)	11.5 (2.4)	8.5 (2.1)	*1.8 (0.8)
Place of residence							
Large MSA ⁵	106.2 (4.6)	35.4 (2.7)	13.2 (1.6)	11.7 (1.6)	12.3 (1.3)	9.8 (1.3)	*1.3 (0.4)
Small MSA	137.0 (6.2)	41.9 (3.7)	20.8 (2.4)	16.0 (2.1)	17.5 (2.4)	16.8 (2.3)	*2.3 (1.0)
Not in MSA	147.9 (8.2)	43.8 (4.4)	22.7 (3.3)	12.9 (2.6)	23.6 (3.3)	11.9 (2.5)	†
Region							
Northeast	111.8 (7.4)	43.3 (4.9)	15.2 (2.7)	9.2 (2.2)	14.2 (2.4)	6.3 (1.8)	†
Midwest	157.4 (7.9)	46.5 (4.6)	24.7 (3.1)	13.0 (2.5)	24.1 (3.1)	16.3 (2.6)	*1.5 (0.6)
South	108.1 (5.4)	34.7 (3.0)	12.9 (1.8)	14.5 (2.0)	13.2 (1.9)	11.2 (1.7)	*1.1 (0.5)
West	120.4 (6.9)	33.6 (3.7)	18.1 (2.8)	15.0 (2.3)	12.9 (2.0)	15.4 (2.5)	†

See footnotes and at end of table.

Table 4. Age-adjusted annualized rates of injury episodes, by sex and selected characteristics for the leading external causes of injury: United States, 2004–2007—Con.

Female	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce	Poisoning
Age ¹							
Rate per 1,000 population (standard error)							
Under 15 years	99.1 (5.9)	42.5 (3.9)	15.4 (2.5)	7.0 (1.5)	6.9 (1.7)	5.7 (1.6)	*2.4 (0.9)
15–24 years	99.6 (7.9)	27.5 (4.0)	12.1 (2.6)	20.1 (3.3)	15.8 (3.2)	*4.3 (1.5)	*3.5 (1.7)
25–44 years	95.3 (5.3)	32.2 (3.2)	10.9 (1.8)	11.2 (1.7)	18.8 (2.2)	8.5 (1.7)	†
45–64 years	104.5 (5.8)	47.4 (3.9)	8.7 (1.8)	12.3 (1.9)	15.1 (2.5)	5.8 (1.3)	*2.8 (0.9)
65–74 years	102.9 (11.1)	60.6 (8.4)	*4.2 (1.9)	*11.2 (4.6)	*9.5 (3.0)	*6.4 (2.9)	†
75 years and over	194.0 (16.4)	141.4 (13.7)	*12.7 (4.2)	*7.7 (3.1)	*14.6 (5.6)	†	†
Hispanic or Latino origin and race ²							
Hispanic or Latino	58.4 (5.1)	26.4 (3.7)	3.9 (1.0)	8.9 (1.8)	4.1 (1.0)	*5.1 (1.5)	†
Mexican or Mexican American	55.6 (7.0)	26.9 (5.5)	*5.1 (1.6)	8.8 (2.5)	*3.4 (1.0)	†	–
Not Hispanic or Latino	113.5 (3.4)	48.8 (2.1)	12.6 (1.2)	12.0 (1.1)	15.7 (1.3)	6.5 (0.9)	2.1 (0.5)
White, single race	124.9 (4.2)	54.2 (2.6)	13.5 (1.4)	12.3 (1.3)	17.9 (1.6)	7.2 (1.1)	2.3 (0.6)
Black or African American, single race	74.9 (6.0)	27.7 (3.6)	9.8 (2.2)	11.7 (2.3)	7.5 (1.7)	*4.4 (1.4)	*2.2 (1.1)
American Indian or Alaska Native, single race	*135.7 (42.6)	†	*36.1 (17.9)	†	†	†	–
Asian, single race	35.9 (7.3)	*12.7 (4.5)	†	*7.9 (3.1)	†	†	–
Education, 25 years and over							
Less than a high school diploma	110.9 (10.3)	55.0 (6.8)	*9.4 (3.1)	8.5 (2.3)	19.9 (5.6)	*5.3 (2.0)	†
High school diploma or GED ³	105.8 (6.8)	45.9 (4.3)	9.8 (2.2)	10.6 (2.2)	13.0 (2.3)	9.8 (2.3)	†
Some college	126.4 (7.5)	63.3 (5.6)	10.5 (1.9)	13.7 (2.4)	16.2 (2.6)	7.1 (1.9)	*2.4 (0.9)
Bachelor's degree or higher	100.5 (7.7)	45.0 (5.5)	10.5 (2.6)	11.2 (2.6)	17.7 (2.8)	4.8 (1.4)	†
Health insurance coverage ⁴ under 65 years							
Private	100.5 (3.8)	38.0 (2.3)	12.2 (1.4)	11.2 (1.2)	14.8 (1.5)	7.0 (1.1)	*1.9 (0.6)
Medicaid	129.0 (11.4)	62.2 (8.3)	10.5 (2.7)	13.7 (3.0)	14.0 (3.7)	11.0 (3.2)	*3.5 (1.4)
Other	143.7 (24.4)	61.5 (15.5)	*24.9 (8.6)	†	*17.9 (8.5)	*8.1 (3.7)	†
Uninsured	78.5 (7.5)	23.1 (3.8)	*11.4 (3.6)	12.9 (2.6)	12.3 (2.6)	†	†
Place of residence							
Large MSA ⁵	93.5 (3.9)	40.7 (2.5)	11.1 (1.4)	10.3 (1.2)	11.7 (1.5)	4.9 (0.9)	*1.4 (0.4)
Small MSA	118.3 (5.5)	50.8 (3.7)	11.6 (1.8)	13.2 (1.8)	16.8 (2.3)	6.3 (1.3)	*2.1 (0.8)
Not in MSA	117.5 (7.8)	51.6 (4.5)	11.0 (2.4)	11.9 (2.5)	16.6 (2.7)	9.3 (2.3)	*2.6 (1.0)
Region							
Northeast	98.6 (6.5)	42.7 (4.1)	8.0 (2.1)	8.7 (1.8)	15.6 (2.8)	5.8 (1.6)	†
Midwest	122.2 (7.2)	53.0 (4.4)	13.0 (2.2)	10.6 (1.9)	19.1 (3.0)	7.8 (1.9)	*1.5 (0.6)
South	100.1 (4.7)	43.7 (3.0)	12.7 (1.8)	13.4 (1.7)	11.2 (1.6)	5.7 (1.1)	*1.2 (0.5)
West	101.4 (5.7)	43.7 (3.9)	9.4 (1.9)	12.0 (2.2)	12.3 (2.0)	5.5 (1.4)	*2.8 (0.9)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

– Quantity zero.

¹Age-specific estimates are not age-adjusted.²Hispanic or Latino origin may be of any race or combination of races. Similarly, the category "not Hispanic or Latino" refers to all persons who are not of Hispanic or Latino origin, regardless of race. In 1997–1998, the Asian category included Native Hawaiian or Other Pacific Islander.³GED is General Educational Development high school equivalency diploma.⁴Classification of health insurance coverage is based on a hierarchy of mutually exclusive categories. Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. See Appendix I, "Health insurance coverage."⁵MSA is metropolitan statistical area. Starting with 2006 data, MSA status is determined using 2000 census data and the 2000 standards for defining MSAs. For data prior to 2006, see Appendix I, "Place of residence."

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 5. Percentage of injury conditions, by nature and body region of the condition: United States, 2004–2007, 2000–2003, and 1997–1999

Body region	Fractures	Sprains and strains	Open wounds	Contusions or superficial	Other
2004–2007					
	Percent of conditions ¹ (standard error)				
Head and neck	0.8 (0.2)	†	6.2 (0.4)	5.8 (0.5)	3.0 (0.3)
Torso or spine and back	2.1 (0.3)	9.9 (0.6)	0.5 (0.1)	3.9 (0.4)	1.6 (0.2)
Upper extremity	6.7 (0.4)	7.2 (0.5)	6.9 (0.4)	5.6 (0.4)	2.8 (0.3)
Lower extremity	5.6 (0.4)	13.1 (0.6)	2.8 (0.3)	7.9 (0.5)	2.0 (0.3)
Unclassifiable by site	*0.1 (0.0)	0.7 (0.1)	†	0.3 (0.1)	4.3 (0.4)
2000–2003					
Head and neck	0.8 (0.1)	†	6.2 (0.3)	2.7 (0.2)	7.1 (0.3)
Torso or spine or back	1.8 (0.2)	7.1 (0.4)	0.1 (0.0)	2.1 (0.2)	6.2 (0.3)
Upper extremity	7.9 (0.3)	4.4 (0.2)	7.2 (0.3)	2.9 (0.2)	7.1 (0.3)
Lower extremity	5.8 (0.3)	9.0 (0.3)	3.1 (0.2)	3.6 (0.3)	6.2 (0.3)
Unclassifiable by site	†	0.9 (0.1)	*0.1 (0.0)	0.6 (0.1)	7.0 (0.3)
1997–1999					
Head and neck	0.8 (0.1)	–	8.3 (0.3)	3.4 (0.2)	5.4 (0.2)
Torso or spine and back	2.2 (0.2)	10.0 (0.4)	0.3 (0.1)	2.8 (0.2)	5.1 (0.2)
Upper extremity	7.2 (0.3)	5.6 (0.2)	7.5 (0.3)	3.3 (0.2)	5.7 (0.3)
Lower extremity	5.8 (0.3)	10.2 (0.3)	3.1 (0.2)	4.6 (0.2)	4.2 (0.2)
Unclassifiable by site	†	0.6 (0.1)	*0.1 (0.0)	0.5 (0.1)	3.1 (0.2)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

– Quantity zero.

¹Injury condition is a departure from a state of physical well-being (e.g., fractured femur, low back strain) due to injury or poisoning episode (e.g., fall). See Appendix I, "Injury condition." In the years 1997–1999, up to four conditions could be reported for a single injury episode but no conditions were reported for poisoning. In the years 2000–2003 up to four injury and poisoning conditions could be reported. In the years 2004–2007, up to eight injury and poisoning conditions could be reported.

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 6. Percent distribution of body regions of the injury conditions, by sex and age for the leading external causes of injury: United States, 2004–2007

Body region	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce
Percent of conditions ¹ (standard error)						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	15.9 (0.7)	18.2 (1.3)	33.3 (2.9)	17.4 (1.7)	†	6.2 (1.7)
Torso or spine and back.	17.9 (0.7)	16.1 (1.1)	5.8 (1.2)	35.0 (2.2)	35.0 (2.6)	1.9 (0.6)
Upper extremity	29.3 (0.8)	25.6 (1.3)	29.0 (2.4)	24.0 (1.9)	21.6 (2.2)	72.9 (2.9)
Lower extremity	31.4 (0.9)	38.9 (1.6)	30.7 (2.7)	21.3 (1.9)	38.3 (2.6)	19.0 (2.6)
Unclassifiable by site	5.5 (0.4)	1.3 (0.3)	*1.2 (0.5)	2.4 (0.7)	4.9 (1.2)	–
Sex						
Male	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	17.8 (1.1)	20.5 (2.1)	38.5 (4.1)	17.7 (2.1)	†	*6.6 (2.1)
Torso or spine and back.	16.7 (0.9)	17.3 (1.9)	5.4 (1.4)	30.2 (2.9)	36.1 (3.7)	2.2 (0.5)
Upper extremity	33.1 (1.2)	27.5 (2.1)	32.9 (3.3)	26.7 (2.6)	23.4 (3.4)	77.0 (3.5)
Lower extremity	26.8 (1.2)	33.8 (2.4)	22.0 (3.0)	22.9 (2.9)	35.8 (3.6)	14.2 (2.9)
Unclassifiable by site	5.5 (0.6)	*0.9 (0.4)	*1.2 (0.6)	*2.4 (1.0)	*4.5 (1.4)	–
Female	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	13.9 (0.9)	16.5 (1.5)	25.3 (3.4)	17.0 (2.6)	†	†
Torso or spine and back.	19.2 (1.0)	15.3 (1.4)	*6.4 (2.0)	39.6 (3.2)	33.8 (3.9)	†
Upper extremity	25.3 (1.1)	24.3 (1.5)	23.0 (3.3)	21.4 (2.7)	19.6 (2.8)	64.9 (5.6)
Lower extremity	36.1 (1.3)	42.4 (2.0)	44.1 (4.4)	19.6 (2.5)	40.9 (3.8)	28.4 (5.3)
Unclassifiable by site	5.4 (0.6)	1.5 (0.4)	†	*2.4 (0.9)	*5.3 (1.8)	–
Age						
Under 15 years	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	31.0 (2.1)	39.1 (3.6)	40.0 (4.7)	32.1 (6.3)	–	*16.7 (6.0)
Torso or spine and back	6.1 (0.9)	4.3 (1.2)	*3.8 (1.7)	*11.6 (4.0)	*16.9 (6.4)	†
Upper extremity	31.2 (2.0)	33.3 (3.3)	35.1 (4.5)	22.3 (5.6)	24.7 (6.8)	43.0 (8.5)
Lower extremity	25.3 (1.9)	23.1 (2.8)	17.9 (3.8)	30.4 (7.2)	55.9 (8.8)	37.0 (8.2)
Unclassifiable by site	6.5 (1.1)	†	*3.2 (1.6)	†	†	–
15–24 years	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	13.3 (1.6)	13.2 (3.4)	27.5 (5.2)	15.4 (3.2)	†	†
Torso or spine and back.	16.5 (1.7)	15.8 (3.2)	*8.4 (3.1)	33.4 (5.2)	17.5 (5.2)	–
Upper extremity	32.7 (2.0)	26.1 (4.1)	33.2 (5.3)	27.3 (4.1)	27.9 (5.5)	84.5 (6.3)
Lower extremity	32.4 (2.1)	44.2 (4.8)	30.8 (5.5)	22.3 (4.1)	47.6 (5.9)	†
Unclassifiable by site	5.1 (1.0)	†	–	†	†	–
25–64 years	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	12.3 (1.0)	11.3 (1.4)	34.5 (5.2)	15.8 (2.3)	†	*4.7 (2.1)
Torso or spine and back.	21.6 (1.1)	18.2 (1.9)	*5.3 (1.7)	40.4 (2.9)	42.1 (3.3)	†
Upper extremity	27.9 (1.2)	21.9 (1.8)	22.8 (3.5)	23.0 (2.5)	20.2 (2.9)	75.8 (3.7)
Lower extremity	32.4 (1.3)	47.0 (2.5)	36.7 (4.6)	17.9 (2.3)	32.6 (3.1)	17.4 (3.1)
Unclassifiable by site	5.8 (0.6)	*1.6 (0.5)	†	*2.9 (1.0)	4.8 (1.2)	–
65 years and over.	100.0	100.0	100.0	100.0	100.0	100.0
Head and neck	12.5 (1.5)	14.9 (2.0)	*18.0 (7.4)	*15.4 (4.6)	–	–
Torso or spine and back.	21.7 (1.9)	22.2 (2.3)	†	29.2 (6.6)	41.7 (9.6)	–
Upper extremity	27.5 (2.0)	25.3 (2.4)	31.5 (7.2)	24.4 (7.0)	*13.2 (5.1)	87.8 (6.7)
Lower extremity	34.7 (2.3)	35.9 (3.0)	42.2 (11.3)	30.9 (5.8)	40.1 (9.5)	†
Unclassifiable by site	3.6 (0.8)	*1.7 (0.7)	–	–	†	–

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

– Quantity zero.

¹Injury condition is a departure from a state of physical well-being (e.g., fractured femur, low back strain) due to injury or poisoning episode (e.g., fall). See Appendix I, "Injury condition." In the years 2004–2007 up to eight injury and poisoning conditions could be reported.

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 7. Percent distribution of the nature of the injury conditions, by sex and age for the leading external causes of injury: United States, 2004–2007

Nature	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce
Percent of conditions ¹ (standard error)						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	15.3 (0.7)	21.5 (1.2)	21.0 (2.1)	10.8 (1.5)	7.0 (1.4)	†
Sprain or strain	31.0 (0.9)	31.3 (1.4)	16.4 (2.0)	36.3 (2.4)	79.5 (2.1)	–
Open wounds	16.4 (0.7)	12.8 (1.0)	19.3 (1.8)	11.0 (1.5)	†	94.2 (1.6)
Contusions or superficial	23.5 (0.8)	28.4 (1.4)	34.0 (2.5)	29.9 (2.2)	*2.1 (0.7)	*4.5 (1.4)
Other	13.8 (0.7)	6.0 (0.7)	9.3 (1.5)	12.0 (1.9)	11.2 (1.8)	†
Sex						
Male	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	16.0 (0.9)	23.2 (2.0)	21.4 (2.7)	14.6 (2.5)	6.8 (1.7)	†
Sprain or strain	28.0 (1.3)	29.6 (2.3)	13.7 (2.2)	30.1 (3.0)	84.1 (2.3)	–
Open wounds	20.9 (1.0)	17.2 (1.8)	23.4 (2.6)	12.3 (2.2)	†	92.9 (2.1)
Contusions or superficial	20.9 (1.1)	23.9 (2.2)	32.9 (3.1)	30.6 (3.0)	†	*5.8 (2.0)
Other	14.1 (1.0)	6.0 (1.1)	8.4 (1.9)	12.3 (2.7)	7.6 (1.9)	†
Female	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	14.6 (0.9)	20.4 (1.5)	20.3 (3.3)	6.9 (1.5)	*7.3 (2.4)	†
Sprain or strain	34.0 (1.2)	32.4 (1.7)	20.5 (3.6)	42.4 (3.5)	74.6 (3.5)	–
Open wounds	11.8 (0.8)	9.7 (1.1)	12.8 (2.5)	9.7 (2.1)	†	96.6 (2.2)
Contusions or superficial	26.1 (1.2)	31.5 (1.8)	35.7 (4.1)	29.2 (3.2)	*2.9 (1.3)	†
Other	13.5 (1.0)	6.0 (1.0)	10.7 (2.4)	11.8 (2.8)	†	–
Age						
Under 15 years	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	18.7 (1.5)	24.2 (2.7)	26.0 (4.3)	*11.9 (3.7)	*8.0 (3.9)	–
Sprain or strain	19.5 (1.6)	20.1 (2.5)	15.7 (3.3)	*20.4 (6.2)	71.9 (6.9)	–
Open wounds	23.7 (1.7)	27.4 (2.9)	21.2 (3.6)	23.0 (5.7)	–	91.7 (3.9)
Contusions or superficial	22.2 (1.8)	22.4 (3.0)	27.9 (4.2)	34.8 (7.5)	†	†
Other	15.9 (1.8)	6.0 (1.6)	*9.1 (2.9)	†	*14.6 (5.9)	†
15–24 years	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	14.9 (1.6)	20.0 (3.5)	23.0 (4.9)	*7.7 (2.3)	*6.5 (2.7)	†
Sprain or strain	33.9 (2.0)	41.1 (4.0)	18.3 (4.0)	34.8 (4.5)	76.2 (5.2)	–
Open wounds	15.1 (1.6)	13.1 (3.5)	16.8 (3.3)	11.6 (2.9)	–	97.4 (2.5)
Contusions or superficial	19.0 (1.7)	15.5 (2.9)	27.1 (4.7)	34.8 (4.4)	†	–
Other	17.2 (1.8)	10.2 (2.9)	14.9 (3.9)	11.1 (3.2)	*14.9 (5.0)	–
25–64 years	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	12.3 (0.8)	18.2 (1.7)	17.3 (2.8)	11.7 (2.2)	*4.1 (1.3)	†
Sprain or strain	36.9 (1.4)	41.1 (2.3)	17.7 (3.3)	38.9 (3.3)	84.5 (2.3)	–
Open wounds	15.2 (0.9)	6.5 (1.0)	20.7 (3.1)	7.8 (1.8)	†	95.2 (2.0)
Contusions or superficial	21.9 (1.2)	27.9 (2.3)	36.6 (3.5)	27.5 (2.8)	†	*4.1 (1.9)
Other	13.8 (1.0)	6.3 (1.1)	7.6 (1.8)	14.2 (3.0)	9.9 (2.0)	†
65 years and over	100.0	100.0	100.0	100.0	100.0	100.0
Fractures	22.0 (2.0)	25.7 (2.6)	*18.7 (7.8)	*10.7 (4.8)	*30.2 (10.5)	†
Sprain or strain	21.5 (2.1)	19.9 (2.6)	†	42.2 (7.3)	57.0 (10.3)	–
Open wounds	13.2 (1.5)	11.3 (1.7)	†	*17.2 (7.1)	–	84.5 (8.0)
Contusions or superficial	35.8 (2.3)	39.5 (2.9)	64.0 (10.5)	28.1 (7.1)	†	†
Other	7.5 (1.2)	3.7 (1.1)	†	†	†	–

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

– Quantity zero.

¹Injury condition is a departure from a state of physical well-being (e.g., fractured femur, low back strain) due to injury or poisoning episode (e.g., fall). See Appendix I, "Injury condition." In the years 2004–2007 up to eight injury and poisoning conditions could be reported.

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 8. Percent distribution of place of occurrence of injury episodes, by sex for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999

Place of occurrence of episode	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce
2004–2007						
Percent of episodes (standard error)						
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	28.7 (0.9)	35.4 (1.6)	30.3 (2.5)	*1.2 (0.6)	22.0 (2.2)	37.9 (3.3)
Home (outside)	18.8 (0.8)	23.4 (1.3)	11.9 (1.7)	12.6 (1.9)	18.0 (2.1)	20.9 (2.7)
School, child care center, or preschool	7.0 (0.5)	6.9 (0.8)	13.5 (1.9)	†	9.7 (1.5)	†
Hospital or residential institution	2.1 (0.3)	2.5 (0.5)	†	–	*4.5 (1.6)	*1.4 (0.7)
Street including highway, sidewalk, or parking lot	12.0 (0.7)	6.7 (0.8)	*3.0 (1.1)	68.8 (2.8)	3.5 (0.9)	*2.4 (1.1)
Recreation-sport facility, recreation area, lake, river, or pool	13.5 (0.7)	12.2 (1.1)	21.0 (2.2)	8.8 (1.7)	19.1 (2.1)	4.6 (1.3)
Commercial area-industrial, construction area, or farm	5.2 (0.5)	2.2 (0.4)	5.7 (1.4)	†	7.8 (1.5)	10.8 (2.3)
Commercial-trade or service area	4.2 (0.4)	3.6 (0.6)	3.0 (0.9)	*2.9 (1.3)	6.3 (1.2)	7.5 (1.7)
Other public building	2.3 (0.3)	2.8 (0.6)	*2.2 (0.7)	†	2.9 (0.8)	*3.8 (1.5)
Other places, not specified	6.2 (0.4)	4.4 (0.6)	8.6 (1.6)	4.2 (1.2)	6.3 (1.2)	9.1 (1.9)
Male	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	21.0 (1.1)	27.2 (2.3)	18.2 (2.5)	†	15.9 (2.5)	28.6 (3.9)
Home (outside)	20.5 (1.1)	25.3 (2.1)	13.9 (2.5)	15.5 (3.0)	19.2 (3.0)	26.6 (3.7)
School, child care center, or preschool	7.1 (0.7)	6.7 (1.2)	14.5 (2.4)	–	8.9 (1.8)	†
Hospital or residential institution	1.1 (0.3)	*1.2 (0.5)	–	–	†	†
Street including highway, sidewalk, or parking lot	11.3 (0.9)	6.2 (1.2)	*4.4 (1.8)	63.2 (4.1)	*3.8 (1.3)	†
Recreation-sport facility, recreation area, lake, river, or pool	16.6 (1.1)	17.1 (2.0)	26.4 (3.1)	12.1 (2.9)	19.7 (2.7)	*5.5 (1.9)
Commercial area-industrial, construction area, or farm	8.8 (0.8)	3.9 (0.9)	9.4 (2.2)	–	13.4 (2.6)	15.6 (3.4)
Commercial-trade or service area	4.1 (0.6)	4.2 (1.0)	*2.4 (1.0)	†	6.7 (1.9)	6.9 (2.0)
Other public building	2.0 (0.4)	*2.4 (0.8)	*2.0 (0.8)	†	*3.2 (1.2)	†
Other places, not specified	7.4 (0.7)	5.9 (1.1)	8.9 (2.1)	*6.4 (2.0)	7.1 (1.7)	9.8 (2.4)
Female	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	37.4 (1.4)	41.9 (2.1)	48.9 (4.3)	†	28.7 (3.6)	56.3 (5.7)
Home (outside)	16.8 (1.1)	22.0 (1.8)	8.9 (2.0)	9.2 (2.3)	16.8 (3.0)	*9.8 (3.1)
School, child care center, or preschool	6.9 (0.7)	7.1 (1.0)	12.0 (2.8)	†	10.6 (2.3)	†
Hospital or residential institution	3.3 (0.6)	3.5 (0.7)	†	–	*7.0 (3.0)	†
Street including highway, sidewalk, or parking lot	12.7 (0.9)	7.0 (1.0)	†	75.1 (3.7)	*3.2 (1.4)	†
Recreation-sport facility, recreation area, lake, river, or pool	10.0 (0.9)	8.4 (1.2)	12.8 (3.1)	*5.1 (1.8)	18.4 (3.2)	†
Commercial area-industrial, construction area, or farm	1.2 (0.3)	*0.8 (0.4)	–	†	*1.7 (0.8)	†
Commercial-trade or service area	4.3 (0.5)	3.1 (0.7)	*4.1 (1.6)	†	5.8 (1.6)	*8.7 (3.1)
Other public building	2.6 (0.5)	3.1 (0.8)	*2.5 (1.1)	–	*2.5 (1.1)	†
Other places, not specified	4.9 (0.6)	3.2 (0.7)	8.1 (2.4)	†	*5.3 (1.7)	*7.8 (3.2)

See footnotes and at end of table.

Table 8. Percent distribution of place of occurrence of injury episodes, by sex for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999—Con.

Place of occurrence of episode	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce
2000–2003						
Percent of episodes (standard error)						
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	24.5 (0.5)	31.4 (1.0)	20.2 (1.2)	*0.9 (0.3)	16.3 (1.2)	39.1 (2.2)
Home (outside)	18.8 (0.5)	24.7 (1.1)	13.3 (1.1)	11.5 (1.1)	16.5 (1.3)	23.0 (1.9)
School, child care center, or preschool	6.7 (0.3)	6.9 (0.5)	16.1 (1.1)	*0.6 (0.2)	7.7 (0.9)	2.5 (0.6)
Hospital or residential institution	1.8 (0.2)	1.9 (0.3)	1.0 (0.3)	†	4.7 (0.7)	*1.4 (0.5)
Street including highway, sidewalk, or parking lot	15.7 (0.5)	7.7 (0.6)	4.1 (0.8)	72.0 (1.5)	5.6 (0.8)	*1.1 (0.5)
Recreation-sport facility, recreation area, lake, river, or pool	13.3 (0.5)	10.6 (0.7)	30.0 (1.5)	8.8 (0.9)	17.6 (1.3)	3.7 (0.8)
Commercial area-industrial, construction area, or farm	5.8 (0.3)	3.0 (0.4)	4.6 (0.7)	1.3 (0.3)	11.4 (1.2)	13.9 (1.5)
Commercial-trade or service area	4.8 (0.3)	4.6 (0.4)	3.5 (0.6)	*1.3 (0.5)	7.0 (0.9)	7.5 (1.2)
Other public building	2.3 (0.2)	3.3 (0.4)	1.7 (0.4)	†	3.4 (0.7)	*1.1 (0.5)
Other places, not specified	6.3 (0.3)	5.8 (0.5)	5.5 (0.8)	3.0 (0.5)	9.7 (1.0)	6.7 (1.1)
Male	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	18.4 (0.7)	25.2 (1.5)	14.3 (1.3)	†	12.2 (1.4)	29.4 (2.6)
Home (outside)	19.5 (0.7)	25.6 (1.7)	13.6 (1.3)	12.0 (1.4)	18.2 (1.8)	23.7 (2.3)
School, child care center, or preschool	7.2 (0.4)	8.2 (0.9)	16.2 (1.4)	†	6.1 (1.1)	3.1 (0.9)
Hospital or residential institution	0.7 (0.1)	*1.0 (0.4)	†	†	†	†
Street including highway, sidewalk, or parking lot	15.1 (0.6)	7.6 (0.9)	4.0 (0.8)	67.9 (2.0)	7.1 (1.3)	†
Recreation-sport facility, recreation area, lake, river, or pool	16.4 (0.7)	13.7 (1.1)	34.7 (1.9)	13.3 (1.4)	18.9 (1.8)	3.8 (1.0)
Commercial area-industrial, construction area, or farm	9.3 (0.5)	5.6 (0.7)	6.2 (1.0)	*1.1 (0.4)	17.5 (1.8)	20.9 (2.2)
Commercial-trade or service area	4.6 (0.3)	3.5 (0.6)	3.6 (0.7)	*1.4 (0.6)	6.6 (1.2)	7.6 (1.5)
Other public building	2.0 (0.3)	3.1 (0.7)	*1.9 (0.6)	–	2.9 (0.9)	†
Other places, not specified	6.9 (0.4)	6.4 (0.8)	5.2 (0.9)	3.1 (0.7)	9.9 (1.4)	8.2 (1.5)
Female	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	31.7 (0.8)	36.4 (1.4)	31.7 (2.5)	*1.4 (0.5)	21.3 (2.1)	55.9 (3.7)
Home (outside)	18.0 (0.7)	23.9 (1.3)	12.7 (1.9)	10.9 (1.5)	14.5 (1.8)	21.7 (3.0)
School, child care center, or preschool	6.2 (0.4)	5.9 (0.7)	15.8 (2.0)	*0.9 (0.4)	9.8 (1.5)	†
Hospital or residential institution	3.0 (0.3)	2.6 (0.5)	*1.9 (0.7)	†	9.7 (1.5)	*2.6 (1.2)
Street including highway, sidewalk, or parking lot	16.5 (0.7)	7.9 (0.9)	*4.3 (1.5)	76.6 (2.1)	3.7 (0.9)	†
Recreation-sport facility, recreation area, lake, river, or pool	9.6 (0.6)	8.1 (0.8)	21.0 (2.3)	3.6 (0.8)	16.0 (1.9)	*3.6 (1.4)
Commercial area-industrial, construction area, or farm	1.7 (0.3)	0.9 (0.3)	*1.6 (0.6)	*1.6 (0.6)	*3.8 (1.4)	†
Commercial-trade or service area	5.1 (0.4)	5.5 (0.6)	3.4 (1.0)	†	7.5 (1.5)	7.3 (2.0)
Other public building	2.6 (0.3)	3.4 (0.5)	*1.4 (0.5)	†	4.1 (1.1)	†
Other places, not specified	5.6 (0.4)	5.4 (0.7)	6.2 (1.4)	2.9 (0.8)	9.5 (1.5)	*4.1 (1.4)

See footnotes and at end of table.

Table 8. Percent distribution of place of occurrence of injury episodes, by sex for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999—Con.

Place of occurrence of episode	External causes, excluding poisonings	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce
1997–1999 ¹						
Percent of episodes (standard error)						
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	22.3 (0.5)	30.4 (1.0)	18.4 (1.2)	†	20.4 (1.3)	35.8 (2.0)
Home (outside)	19.4 (0.5)	24.9 (0.9)	16.2 (1.1)	9.1 (0.9)	17.8 (1.2)	23.2 (1.8)
School, child care center, or preschool	7.0 (0.3)	7.9 (0.6)	15.6 (1.1)	*0.7 (0.3)	5.8 (0.7)	3.0 (0.7)
Hospital or residential institution	2.1 (0.2)	2.0 (0.4)	1.4 (0.4)	*0.5 (0.2)	4.9 (0.8)	*1.4 (0.5)
Street including highway, sidewalk, or parking lot	15.8 (0.5)	6.9 (0.5)	3.8 (0.6)	77.8 (1.3)	3.9 (0.7)	*1.6 (0.5)
Recreation-sport facility, recreation area, lake, river, or pool	12.5 (0.4)	11.0 (0.7)	26.9 (1.4)	6.3 (0.8)	12.8 (1.2)	5.5 (1.0)
Commercial area-industrial, construction area, or farm	7.1 (0.4)	4.0 (0.4)	5.8 (0.7)	2.1 (0.5)	12.8 (1.1)	12.6 (1.5)
Commercial-trade or service area	5.7 (0.3)	5.0 (0.4)	5.6 (0.7)	†	9.3 (1.1)	7.6 (1.1)
Other public building	2.9 (0.2)	3.2 (0.4)	2.6 (0.5)	†	5.5 (0.7)	2.7 (0.7)
Other places, not specified	5.2 (0.3)	4.9 (0.5)	3.7 (0.6)	2.5 (0.5)	6.8 (0.9)	6.7 (1.0)
Male	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	16.4 (0.6)	23.4 (1.4)	11.7 (1.2)	†	15.1 (1.7)	28.4 (2.4)
Home (outside)	19.8 (0.7)	24.4 (1.4)	17.8 (1.4)	11.5 (1.3)	17.9 (1.7)	24.6 (2.2)
School, child care center, or preschool	7.6 (0.4)	10.7 (1.0)	16.0 (1.3)	*0.9 (0.4)	3.8 (0.8)	2.9 (0.8)
Hospital or residential institution	1.1 (0.2)	*1.2 (0.3)	*0.9 (0.3)	–	*1.9 (0.6)	*1.3 (0.5)
Street including highway, sidewalk, or parking lot	14.7 (0.6)	5.7 (0.7)	4.8 (0.8)	72.2 (1.9)	4.5 (1.0)	*1.9 (0.7)
Recreation-sport facility, recreation area, lake, river, or pool	15.6 (0.6)	16.3 (1.2)	29.2 (1.7)	8.6 (1.3)	15.2 (1.7)	7.0 (1.4)
Commercial area-industrial, construction area, or farm	10.9 (0.6)	7.6 (0.9)	7.7 (1.0)	2.5 (0.7)	18.5 (1.8)	15.9 (2.0)
Commercial-trade or service area	5.7 (0.4)	4.3 (0.7)	4.8 (0.8)	†	9.9 (1.6)	8.1 (1.3)
Other public building	2.5 (0.3)	2.2 (0.5)	2.4 (0.6)	†	5.1 (1.0)	*2.6 (0.8)
Other places, not specified	5.6 (0.4)	4.3 (0.6)	4.7 (0.8)	2.8 (0.7)	8.0 (1.4)	7.3 (1.3)
Female	100.0	100.0	100.0	100.0	100.0	100.0
Home (inside)	29.8 (0.8)	35.8 (1.3)	31.9 (2.3)	–	27.2 (2.2)	52.6 (3.8)
Home (outside)	18.9 (0.7)	25.2 (1.2)	12.8 (1.6)	6.1 (1.0)	17.6 (1.8)	20.3 (2.9)
School, child care center, or preschool	6.2 (0.4)	5.7 (0.6)	14.7 (1.9)	†	8.5 (1.4)	*3.1 (1.1)
Hospital or residential institution	3.3 (0.4)	2.6 (0.7)	*2.6 (1.0)	*1.0 (0.4)	8.8 (1.4)	†
Street including highway, sidewalk, or parking lot	17.1 (0.7)	7.8 (0.7)	*1.9 (0.7)	84.7 (1.7)	3.2 (0.9)	†
Recreation-sport facility, recreation area, lake, river, or pool	8.6 (0.5)	6.9 (0.7)	22.2 (2.3)	3.4 (0.9)	9.8 (1.5)	†
Commercial area-industrial, construction area, or farm	2.4 (0.3)	1.2 (0.3)	*1.9 (0.7)	*1.5 (0.6)	5.4 (1.1)	*5.1 (1.7)
Commercial-trade or service area	5.6 (0.4)	5.6 (0.6)	7.1 (1.4)	†	8.4 (1.4)	6.4 (1.8)
Other public building	3.4 (0.3)	3.9 (0.5)	3.1 (0.8)	†	6.1 (1.2)	*3.0 (1.2)
Other places, not specified	4.7 (0.4)	5.2 (0.6)	*1.8 (0.6)	*2.0 (0.6)	5.1 (1.1)	*5.2 (1.6)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

– Quantity zero.

¹In the years 1997–1999, estimates for place of occurrences exclude poisoning. The respondents were not asked to report a place of occurrence for episodes of poisonings in the years 1997–1999.

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 9. Percent distribution of activity at time of injury episodes, by sex for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999

Activity at time of episodes	External causes, all	Fall	Struck by or against	Transportation	Overexertion	Cut or pierce
2004–2007						
Percent of episodes (standard error)						
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle.	7.3 (0.6)	*0.5 (0.2)	†	59.8 (2.9)	†	†
Working at paid job	14.8 (0.7)	9.7 (0.9)	14.4 (2.0)	3.7 (1.1)	26.8 (2.5)	28.9 (3.1)
Working around house or yard	14.7 (0.7)	17.2 (1.2)	14.0 (2.0)	†	17.7 (1.9)	26.6 (3.0)
Attending school.	2.4 (0.3)	2.7 (0.5)	6.1 (1.3)	†	†	†
Sports and exercise.	16.1 (0.8)	15.2 (1.2)	25.6 (2.4)	7.7 (1.5)	25.4 (2.3)	*3.4 (1.2)
Leisure activities (excluding sports)	25.2 (0.9)	30.3 (1.5)	24.8 (2.5)	20.8 (2.4)	16.3 (1.9)	19.6 (2.8)
Other activity ¹	19.6 (0.8)	24.4 (1.4)	14.9 (1.9)	6.2 (1.5)	12.9 (1.9)	20.0 (2.7)
Male	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle.	6.6 (0.7)	*0.8 (0.4)	–	53.5 (4.2)	†	†
Working at paid job	19.6 (1.1)	12.3 (1.6)	18.7 (2.9)	*5.0 (1.6)	34.1 (3.5)	36.1 (4.2)
Working around house or yard	12.2 (0.9)	12.3 (1.6)	9.0 (1.9)	†	15.2 (2.6)	26.3 (3.6)
Attending school.	2.4 (0.4)	2.7 (0.7)	6.7 (1.7)	†	†	†
Sports and exercise.	20.2 (1.1)	22.3 (2.2)	31.2 (3.3)	10.6 (2.4)	26.9 (3.1)	*4.1 (1.6)
Leisure activities (excluding sports)	24.3 (1.2)	31.0 (2.3)	23.9 (3.2)	25.4 (3.6)	13.9 (2.5)	16.7 (3.0)
Other activity ¹	14.7 (1.0)	18.7 (1.9)	10.5 (1.9)	*4.2 (2.0)	9.0 (2.2)	15.6 (3.1)
Female	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle.	8.0 (0.7)	†	†	66.9 (3.6)	–	–
Working at paid job	9.5 (0.8)	7.6 (1.1)	7.8 (2.1)	*2.2 (1.0)	18.9 (3.4)	14.7 (4.0)
Working around house or yard	17.5 (1.1)	21.1 (1.8)	21.6 (3.9)	†	20.4 (2.9)	27.3 (4.9)
Attending school.	2.4 (0.4)	2.7 (0.6)	*5.3 (1.8)	†	†	†
Sports and exercise.	11.4 (0.9)	9.6 (1.2)	17.1 (3.3)	*4.4 (1.7)	23.8 (3.6)	†
Leisure activities (excluding sports)	26.1 (1.2)	29.7 (1.9)	26.0 (3.9)	15.7 (2.8)	18.8 (2.9)	25.4 (5.0)
Other activity ¹	25.1 (1.2)	28.9 (1.9)	21.7 (3.5)	8.6 (2.2)	17.1 (3.1)	28.7 (5.5)
2000–2003						
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle.	10.8 (0.4)	*0.4 (0.1)	†	66.1 (1.5)	*0.6 (0.2)	†
Working at paid job	15.9 (0.5)	10.9 (0.7)	11.7 (1.0)	3.5 (0.6)	36.2 (1.7)	26.1 (2.0)
Working around house or yard	13.1 (0.4)	16.3 (0.9)	8.8 (0.9)	*1.1 (0.3)	13.4 (1.2)	28.1 (2.0)
Attending school.	2.7 (0.2)	3.7 (0.4)	5.1 (0.7)	*0.4 (0.2)	1.7 (0.4)	*1.0 (0.4)
Sports and exercise.	14.5 (0.5)	10.8 (0.7)	38.0 (1.6)	8.8 (0.9)	20.2 (1.4)	2.1 (0.6)
Leisure activities (excluding sports)	23.0 (0.6)	30.8 (1.0)	21.8 (1.3)	13.8 (1.0)	15.9 (1.3)	19.5 (1.7)
Other activity ¹	20.0 (0.5)	27.1 (1.0)	13.8 (1.1)	6.3 (0.7)	12.0 (1.1)	22.8 (1.9)
Male	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle.	9.6 (0.5)	†	†	59.4 (2.1)	†	†
Working at paid job	19.6 (0.7)	13.7 (1.1)	12.3 (1.3)	4.7 (0.9)	40.8 (2.4)	33.5 (2.7)
Working around house or yard	11.3 (0.5)	13.8 (1.3)	7.1 (1.0)	*0.8 (0.3)	12.0 (1.4)	23.8 (2.4)
Attending school.	2.8 (0.3)	3.9 (0.6)	5.2 (0.8)	†	*1.5 (0.6)	*1.3 (0.6)
Sports and exercise.	18.4 (0.7)	15.6 (1.2)	43.2 (2.0)	11.7 (1.4)	20.7 (1.9)	*2.4 (0.8)
Leisure activities (excluding sports)	22.0 (0.7)	30.8 (1.5)	19.3 (1.5)	16.7 (1.5)	14.7 (1.7)	20.1 (2.2)
Other activity ¹	16.2 (0.6)	21.9 (1.4)	12.5 (1.3)	6.0 (1.0)	9.6 (1.3)	18.4 (2.2)
Female	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle.	12.2 (0.6)	*0.4 (0.2)	†	73.8 (2.1)	†	†
Working at paid job	11.5 (0.6)	8.6 (0.9)	10.7 (1.7)	*2.1 (0.7)	30.6 (2.5)	13.2 (2.5)
Working around house or yard	15.3 (0.7)	18.4 (1.1)	12.3 (1.8)	*1.3 (0.6)	15.2 (1.8)	35.4 (3.4)
Attending school.	2.6 (0.3)	3.5 (0.5)	5.0 (1.0)	†	*1.9 (0.6)	†
Sports and exercise.	10.0 (0.6)	6.9 (0.8)	27.8 (2.4)	5.5 (1.0)	19.6 (2.1)	†
Leisure activities (excluding sports)	24.1 (0.8)	30.8 (1.4)	26.5 (2.5)	10.4 (1.3)	17.4 (2.2)	18.5 (2.8)
Other activity ¹	24.3 (0.8)	31.3 (1.4)	16.3 (2.0)	6.7 (1.1)	14.9 (1.9)	30.4 (3.3)

See footnotes and at end of table.

Table 9. Percent distribution of activity at time of injury episodes, by sex for the leading external causes of injury: United States, 2004–2007, 2000–2003, and 1997–1999

Activity at time of episodes	External causes, excluding poisonings	Percent of episodes (standard error)				
		Fall	Struck by or against	Transportation	Overexertion	Cut or pierce
1997–1999 ²						
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle	8.5 (0.4)	†	†	55.5 (1.6)	*1.1 (0.3)	†
Working at paid job	18.0 (0.5)	11.5 (0.7)	15.0 (1.1)	3.6 (0.6)	37.4 (1.6)	26.2 (1.8)
Working around house or yard	11.2 (0.4)	13.1 (0.7)	8.4 (0.8)	*0.6 (0.2)	16.5 (1.2)	21.4 (1.8)
Attending school	2.7 (0.2)	3.5 (0.4)	4.4 (0.6)	*1.2 (0.4)	*1.2 (0.4)	1.5 (0.4)
Sports and exercise	13.7 (0.4)	11.0 (0.7)	35.3 (1.5)	6.7 (0.9)	13.4 (1.2)	2.1 (0.6)
Leisure activities (excluding sports)	22.2 (0.5)	29.1 (0.9)	19.9 (1.1)	18.8 (1.3)	13.2 (1.1)	20.6 (1.8)
Other activity ¹	23.7 (0.6)	31.6 (1.0)	16.7 (1.2)	13.6 (1.1)	17.2 (1.2)	28.2 (1.9)
Male	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle	7.8 (0.4)	†	†	49.8 (2.1)	*1.7 (0.6)	–
Working at paid job	22.3 (0.7)	15.2 (1.1)	16.5 (1.4)	4.8 (0.9)	42.8 (2.3)	30.4 (2.2)
Working around house or yard	9.1 (0.5)	9.2 (0.9)	5.9 (0.9)	*0.9 (0.3)	13.4 (1.6)	19.4 (2.1)
Attending school	2.8 (0.3)	4.5 (0.7)	4.6 (0.7)	*0.8 (0.4)	†	*1.3 (0.5)
Sports and exercise	17.3 (0.6)	17.1 (1.2)	38.5 (1.8)	9.5 (1.4)	15.9 (1.8)	2.6 (0.8)
Leisure activities (excluding sports)	21.8 (0.7)	28.9 (1.5)	19.2 (1.4)	22.1 (1.7)	13.0 (1.5)	21.6 (2.2)
Other activity ¹	18.9 (0.6)	25.1 (1.4)	15.0 (1.3)	12.2 (1.3)	12.9 (1.5)	24.7 (2.2)
Female	100.0	100.0	100.0	100.0	100.0	100.0
Driving or riding in a motor vehicle	9.4 (0.5)	†	–	62.6 (2.3)	†	†
Working at paid job	12.6 (0.6)	8.7 (0.8)	12.1 (1.7)	*2.1 (0.7)	30.5 (2.3)	16.5 (2.8)
Working around house or yard	13.8 (0.6)	16.1 (1.0)	13.6 (1.6)	†	20.5 (2.0)	25.9 (3.3)
Attending school	2.7 (0.3)	2.8 (0.4)	4.1 (1.0)	*1.6 (0.6)	*2.1 (0.8)	*1.9 (0.9)
Sports and exercise	9.1 (0.6)	6.4 (0.7)	28.9 (2.5)	3.3 (0.9)	10.2 (1.5)	†
Leisure activities (excluding sports)	22.7 (0.8)	29.3 (1.2)	21.2 (2.0)	14.7 (1.7)	13.6 (1.7)	18.2 (2.9)
Other activity ¹	29.7 (0.9)	36.7 (1.3)	20.1 (2.1)	15.4 (1.7)	22.7 (2.1)	36.2 (3.5)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

† Estimates have a relative standard error greater than 50% and are not shown.

– Quantity zero.

¹ Includes unpaid work such as housework, shopping, volunteer work, sleeping, resting, eating, drinking, cooking, hands-on care from another person, and unspecified activities.

² In the years 1997–1999, estimates for place of occurrence and activity exclude poisoning as respondents were not asked to report a place of occurrence or activity for episodes of poisoning.

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 10. Annualized frequencies and percentage of injury episodes resulting in hospitalization, by sex and age: United States, 1997–1999 and 2004–2007

Sex and age	1997–1999		2004–2007	
	Weighted number of episodes in thousands	Percent ¹ of episodes (SE)	Weighted number of episodes in thousands	Percent ¹ of episodes (SE)
Both sexes				
All ages	2,240	6.8 (0.3)	2,275	6.8 (0.5)
Under 15 years	212	3.0 (0.4)	214	3.1 (0.7)
15–24 years	322	5.3 (0.6)	285	4.9 (1.0)
25–64 years	1,025	6.3 (0.4)	980	6.0 (0.7)
65 years and over	682	17.9 (1.3)	796	17.2 (2.2)
Male				
All ages	1,249	6.8 (0.4)	1,054	6.0 (0.6)
Under 15 years	148	3.5 (0.5)	136	3.5 (1.0)
15–24 years	181	4.7 (0.7)	167	4.4 (1.1)
25–64 years	676	7.6 (0.6)	523	6.3 (0.9)
65 years and over	243	19.7 (2.4)	227	14.0 (3.0)
Female				
All ages	992	6.7 (0.4)	1,222	7.7 (0.8)
Under 15 years	64	2.3 (0.6)	*78	*2.6 (0.8)
15–24 years	141	6.5 (1.1)	*118	*5.8 (1.9)
25–64 years	348	4.8 (0.5)	457	5.8 (0.9)
65 years and over	439	17.1 (1.6)	569	19.0 (2.8)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

¹Percent of episodes were based on the annualized frequencies of all medically attended injury and poisoning episodes reported in the period by age group.

NOTES: Hospitalization refers to requiring at least one overnight stay. Estimates for some sources of medical care sought in the years 2000–2003 may be artificially low due to the way the questions were asked and therefore, are not shown for this period. Further information on terms used in tables can be found in Appendix I.

Table 11. Annualized frequencies and percentage of injury episodes resulting in time lost from work or school, by sex: United States, 2004–2007

Time lost	Time lost from school, 5 years and over		Time lost from work, 13 years and over	
	Weighted number of episodes in thousands	Percent ¹ of episodes (SE)	Weighted number of episodes in thousands	Percent ¹ of episodes (SE)
Both sexes				
Any time lost	2,945	33.8 (1.8)	7,794	49.7 (1.5)
Less than 1 day	797	9.1 (0.9)	1,307	8.3 (0.8)
1–5 days	1,872	21.5 (1.6)	4,001	25.5 (1.3)
6 or more days	276	3.2 (0.6)	2,485	15.8 (1.1)
Male				
Any time lost	1,682	33.4 (2.3)	4,805	51.1 (1.9)
Less than 1 day	517	10.3 (1.3)	922	9.8 (1.2)
1–5 days	1,046	20.8 (2.1)	2,320	24.7 (1.6)
6 or more days	*120	*2.4 (0.8)	1,563	16.6 (1.4)
Female				
Any time lost	1,263	34.4 (2.6)	2,989	47.6 (2.3)
Less than 1 day	280	7.6 (1.3)	385	6.1 (1.0)
1–5 days	826	22.5 (2.2)	1,682	26.7 (2.0)
6 or more days	156	4.3 (1.1)	922	14.7 (1.6)

* Estimates have a relative standard error of greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

¹Percent of injury episodes among those attending school for time lost from school and those employed for time lost from work.

NOTE: Further information on terms used in tables can be found in Appendix I.

Table 12. Annualized frequencies and percentage of injury episodes, by sources of medical care: United States, 2004–2007

	Weighted number of episodes in thousands	Percent ¹ of episodes (SE)
All episodes	33,344	100.0
All sources of medical care ²		
Hospitalized overnight	2,287	6.8 (0.5)
Emergency vehicle or emergency room	18,609	55.6 (1.0)
Doctor's office or clinic	23,654	70.6 (0.9)
Call to medical professional or poison control center	11,319	33.8 (1.0)
Any place else	3,618	10.8 (0.6)
Source of medical care as selected by hierarchy ³		
Hospitalized overnight	2,287	6.8 (0.5)
Emergency vehicle or emergency room	16,511	49.3 (1.0)
Doctor's office or clinic	13,021	38.9 (0.9)
Call to medical professional or poison control center	875	2.6 (0.3)
Any place else	650	1.9 (0.3)
Source of medical care when only one source mentioned ⁴		
Hospitalized overnight only	†	†
Emergency vehicle or emergency room only	6,115	18.3 (0.8)
Doctor's office or clinic only	7,828	23.4 (0.8)
Call to medical professional or poison control center only	752	2.2 (0.3)
Any place else only	650	1.9 (0.3)

†Estimates with a relative standard error greater than 50% are indicated with a dagger, but are not shown.

¹Percent of injury and poisoning episodes calculated in the table were based on the annualized frequencies of all medically attended injury and poisoning episodes reported in the years 2004–2007.

²Respondents were asked to report each source of medical care received. For some episodes, multiple sources of medical care were mentioned. The number of times care was received from each source is unknown.

³Classification of sources of medical care is based on a hierarchy of mutually exclusive categories. Episodes were assigned to the first category in the hierarchy as follows: hospitalized overnight, emergency vehicle or emergency room, doctor's office or clinic, call to medical professional or poison control center, any place else. The average annualized number of medically attended injury and poisoning episodes in the years 2004–2007 was 33,344 thousand.

⁴Source of medical care when only one source was mentioned are included. The average annualized number of episodes in which only one source was mentioned in 2004–2007 was 15,345 thousand.

NOTE: Further information on terms used in tables can be found in Appendix I.

Appendix I

Definition of Selected Terms

The following section defines some of the terms used in this report. Additional information is available in the “Definitions and Methods” appendix of *Injury in the United States: 2007 Chartbook* and in the “Definitions and Methods” appendix of *Health, United States, 2008* (3,28).

Activity—An activity describes what the injured person was doing when the injury occurred. Categories include driving or riding in a motor vehicle, working at paid job, working around house or yard, attending school, sports, leisure activities (excluding sports), and other (Table I). Up to two activities can be reported for the same episode. Only the first mentioned activity was included in this report.

Age—The age recorded for each person is the age at the last birthday. Age is recorded in single years and grouped using a variety of age categories depending on the purpose of the table.

Age adjustment—Age adjustment is used to compare rates for two or more populations at one point in time or one population at two or more points in time. Age-adjusted rates are computed by the direct method of applying age-specific rates in a population of interest to a standardized age distribution to eliminate differences in

observed rates that result from age differences in population composition. Age-adjusted rates should be viewed as relative indexes rather than actual measures of risk. Age-adjusted rates for two different outcome measures at the same point in time should not be compared. Age-adjusted rates (R') are calculated by the direct method of applying unrounded age-specific rates (R_i) to the U.S. standard population (w_i):

$$R' = \sum_i w_i R_i$$

Estimates are age adjusted to the 2000 U.S. standard population (29). Adjustment is based on six age groups as shown below with their corresponding standard population (Table II).

Barell Injury Diagnosis Matrix (Barell Matrix)—The matrix is a two-dimensional array of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnosis codes for injury (updated as of 2002) grouped by body region and nature of the injury. This matrix provides a standard format for reporting injury data. For more information, refer to <http://www.cdc.gov/nchs/injury/ice/barellmatrix.htm> and the Injury Surveillance Workgroup Consensus Recommendations (20,30). See related *Body region, Injury condition, Nature of injury*.

Body region—“Body region” refers to one of the two dimensions of the Barell Injury Diagnosis Matrix. This dimension classifies the part of the body

that was injured and is based on ICD-9-CM codes in the Barell Matrix. For a detailed listing of the body regions see Table I in *Injury in the United States: 2007 Chartbook* (3). See related *Barell Injury Diagnosis Matrix (Barell Matrix), Injury condition, Nature of injury*.

Education—Beginning in 1997, the NHIS questionnaire was changed to ask “What is the highest level of school [_____] has completed or the highest degree received?” Responses were used to categorize adults according to educational credentials (i.e., no high school diploma or general educational development (GED) high school equivalency diploma, high school diploma or GED, some college, no bachelor’s degree, or bachelor’s degree or higher). Education is shown only for persons aged 25 years and over. Estimates are age adjusted to the 2000 U.S. standard population using four age groups: 25–44 years, 45–64 years, 65–74 years, and 75 years and over.

External causes of injury—The external cause of injury is used for classifying the circumstances in which injuries occur. The external cause is comprised of two axes, the mechanism or cause (e.g., firearm or motor vehicle) and the manner or intent (e.g., homicide or suicide). See related *External cause of injury matrix*.

External cause of injury matrix—The matrix is a two-dimensional array describing both the mechanism or external cause of the injury (e.g., fall, cut, or struck) and the manner or intent

Table I. Predefined response list for activity at time of injury, by year: National Health Interview Survey, 1997–2007

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Driving	X	X	–	–	–	–	–	–	–	–	–
Driving or riding in a motor vehicle	–	–	X	X	X	X	X	X	X	X	X
Working at paid job	X	X	X	X	X	X	X	X	X	X	X
Working around the house or yard	X	X	X	X	X	X	X	X	X	X	X
Attending school	X	X	X	X	X	X	X	X	X	X	X
Unpaid work (including housework, shopping, volunteer work)	–	X	X	X	X	X	X	X	X	X	X
Unpaid work (such as volunteer work)	X	X	X	X	–	–	–	–	–	–	–
Sports (organized team or individual sport such as running, biking, skating)	X	X	X	X	X	X	X	–	–	–	–
Sports and exercise	–	–	–	–	–	–	–	X	X	X	X
Leisure activity (excluding sports)	X	X	X	X	X	X	X	X	X	X	X
Sleeping, resting, eating, drinking	X	X	X	X	X	X	X	X	X	X	X
Cooking	X	X	X	X	X	X	X	X	X	X	X
Being cared for (hands on care from other person)	X	X	X	X	X	X	X	X	X	X	X
Other	X	X	X	X	X	X	X	–	–	–	–
Other, please specify	–	–	–	–	–	–	–	X	X	X	X

X Category in response list.

– Category not in response list.

Table II. 2000 United States standard population, by age group

Age group	Population
Total	274,633,642
Under 15 years	58,963,139
15–24 years	38,076,743
25–44 years	81,892,622
45–64 years	60,991,658
65–74 years	18,135,514
75 years and older	16,573,966

of the injury (e.g., unintentional or accidental, suicide or self inflicted, or homicide or assault). For more information, see http://www.cdc.gov/nchs/injury/injury_tools.htm. In this report the matrix is used to classify the cause of the injury (e.g., fall, cut, or struck) using ICD–9–CM codes. Some of the external causes in the matrix have been combined. For example, Transportation includes all injury episodes involving motor vehicles, bicycles, motorcycles, pedestrians, trains, boats, and airplanes. The category Other includes fire, burn, or scald related episodes, animal or insect bites, machinery accidents, and other but not specified episodes. The category Poisoning excludes food poisoning and allergic reactions. Thus, the category All External Causes includes fall, struck by or against a person or an object, transportation, overexertion, cutting-piercing instruments, poisoning, and other (as defined above). For a detailed listing of the codes used to classify external causes see [Table V](#) in *Injury in the United States: 2007 Chartbook* (3).

Family income—In NHIS, all people within a household related to each other by blood, marriage, or adoption constitute a family. Each member of a family is classified according to the total income of the family. Unrelated individuals are classified according to their own income. Starting in 1997, NHIS collected family income data for the calendar year prior to the interview (e.g., 2005 family income data were based on calendar year 2004 information). Family income includes wages, salaries, rent from properties, interest, dividends, profits and fees from their own businesses, pensions, and help from relatives. Family income was

missing for 24–34% of persons in the years 1997–2006 and 33% of persons in 2007. Multiple imputations of family income were performed for families with missing income data for survey years 1997 and beyond, with five sets of imputed values created to allow for the assessment of variability caused by imputation. A detailed description of the multiple imputation procedure, as well as data files for 1997 and beyond, is available for each year on the “Imputed Income Files” pages at <http://www.cdc.gov/nchs/nhis.htm>. Additional information is available on the NHIS website at <http://www.cdc.gov/nchs/data/nhis/tecdoc.pdf> (31). Reported and imputed family incomes were used to calculate Poverty status. See related *Poverty status*.

Health insurance coverage—Classification of health insurance coverage is for coverage at the time of the NHIS interview and is based on a hierarchy of mutually exclusive categories. Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. Persons aged 65 years and over were not included due to the prominence of Medicare coverage in the older population. The category Private includes persons who had any type of private coverage either alone or in combination with other coverage. The category Medicaid includes persons who do not have private coverage, but who have Medicaid or other state-sponsored health plans, including SCHIP. The category Uninsured includes persons who had no coverage as well as those who had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care. Estimates by health insurance coverage are age

adjusted to the 2000 U.S. standard population using four age groups: under 15 years, 15–24 years, 25–44 years, and 45–64 years. Beginning in the third quarter of 2004, additional questions were added to the NHIS insurance section to reduce potential errors in reporting of Medicare and Medicaid status. Persons under 65 years with no reported coverage were asked explicitly about Medicaid coverage.

Hispanic or Latino origin and race—Persons of Hispanic or Latino origin may be of any race or combination of races. Similarly, the category “Not Hispanic or Latino” refers to all persons who are not of Hispanic or Latino origin, regardless of race.

ICD–9–CM—The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD–9–CM) is based on the World Health Organization’s Ninth Revision, International Classification of Diseases (ICD–9). The United States currently uses ICD–9–CM to code morbidity diagnoses and inpatient procedures. ICD–9–CM consists of three volumes: Volumes 1 and 2 contain the diagnosis tabular list and index while Volume 3 contains the procedure classification (tabular list and index combined).

ICD–9–CM is divided into 17 chapters and 2 supplemental classifications. The chapters are arranged primarily by body system. The injuries chapter is arranged by nature of injury rather than by body region of injury. One of the two supplemental classifications is external causes of injury and poisoning (E Codes). ICD–9–CM is used for coding the respondent’s verbatim responses in NHIS.

Injury—According to the Injury Surveillance Guidelines (32), an injury is the physical damage that results when a human body is suddenly or briefly subjected to intolerable levels of energy. Injury can be a bodily lesion resulting from acute exposure to energy in amounts that exceed the threshold of physiological tolerance, or it can be an impairment of function resulting from a lack of one or more vital elements (i.e., air, water, or warmth), as in strangulation, drowning, or freezing. The

time between exposure to the energy and the appearance of an injury is short.

The energy causing an injury may be one of the following: mechanical (e.g., an impact with a moving or stationary object, such as a surface, knife, or vehicle); radiant (e.g., a blinding light or a shock wave from an explosion); thermal (e.g., air or water that is too hot or too cold); electrical; or chemical (e.g., a poison or an intoxicating or mind-altering substance such as alcohol or a drug).

In other words, injuries are the acute, physical conditions listed in Chapter XIX, “Injury, poisoning, and certain other consequences of external causes” and the circumstances under which they were caused as defined in Chapter XX, “External causes of morbidity and mortality” in ICD–10.

Whereas the above definition of an injury includes drowning (lack of oxygen), hypothermia (lack of heat), strangulation (lack of oxygen), decompression sickness or “the bends” (excess nitrogen compounds), and poisonings (by toxic substances), it does not include conditions that result from continual stress, such as carpal tunnel syndrome, chronic back pain, and poisoning due to infections. Mental disorders and chronic disability, although these may be eventual consequences of physical injury, are also excluded by the above definition. Also excluded from the definition of injury by international consensus are complications of medical or surgical care and adverse events.

Injury condition—An injury condition is a departure from a state of physical well-being due to an injury episode. Each condition was reported by the respondent when asked to describe the nature of the injury that resulted from the injury episode. Injury conditions are self-reported and are ideally medical diagnoses. From 1999 through 2004, a series of open-ended questions about the nature of injury conditions was asked. Up to four ICD–9–CM injury diagnosis codes in the years 1999–2003 were assigned based on the verbatim responses to the questions. It was noted in review of the verbatim responses that in some cases, the descriptions of the injury were quite

detailed and included diagnostic detail. However, in other cases, the injury descriptions were barely sufficient for ICD–9–CM coding. Beginning in 2004, predefined response lists were also added to eliminate some of the variation in specificity from the open-ended questions. For each injury episode, the respondent can identify up to four injured body parts by pointing to a flashcard ([Figure I](#)). For each injured body part, up to two types of injury (i.e., nature of injury) can be selected from predefined response list as follows: Broken bone or fracture; Sprain, strain, or twist; Cut; Scrape; Bruise; Burn; Insect bite; Animal bite; Other, specify; Refused; Don’t know. Up to eight codes were assigned based on responses to questions about the nature of the injury conditions. Data provided in the tables were categorized according to the Barell body region by nature of injury diagnosis matrix. See related *Barell Injury Diagnosis Matrix (Barell Matrix), Body region, Nature of injury*.

Injury episode—In NHIS, an injury episode refers to the traumatic event in which a person was injured one or more times from an external cause (e.g., a fall or a motor vehicle traffic accident). A poisoning episode refers to the event resulting from ingestion of or contact with harmful substances, as well as overdoses or wrong use of any drug or medication. Only episodes that required medical consultation were included in NHIS. Throughout this report the term “injury episodes” refers to nonfatal, medically attended injury or poisoning episodes. From 1997 through 1999, some information was not available for poisoning episodes; these will be referred to as “injury (excluding poisoning) episodes.” See related *Medically attended or consulted injury*.

Mechanism of injury—See *External cause of injury*.

Medically attended or consulted injury episode—Medically attended or consulted injury episode refers to an injury episode for which a health care professional was contacted for advice or treatment. This advice may be given in a formal office setting, over the phone, or in informal settings such as a dinner party. Advice or treatment may be received from a friend or relative who is

a trained medical professional. A trained medical professional includes anyone the respondent deems a medical professional. Some examples may include a medical doctor, nurse, physical or occupational therapist, and homoeopath.

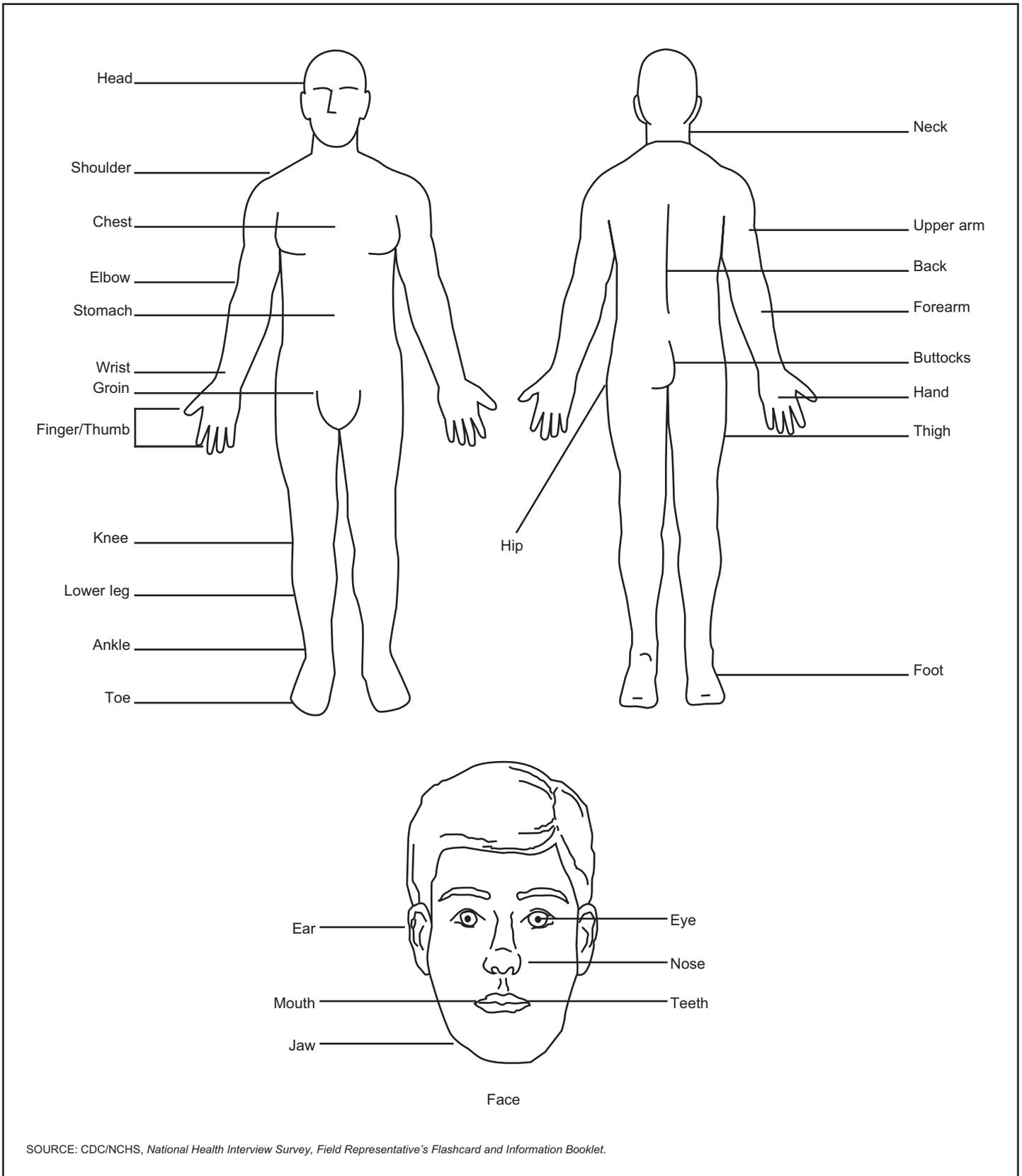
Missing values—In the tables, all unknown values (i.e., responses coded as “refused,” “don’t know,” or “not ascertained”) with respect to each table’s variables of interest were removed from the denominators when calculating percentages (or rates). In addition, “unknown” is not shown as a separate category in tables by education, health insurance, current health status, place of occurrence, and activity at the time of injury. Because these unknowns are not shown separately, users calculating their own percentages based on the frequencies and population counts presented in the tables may obtain slightly different results. To aid users’ understanding of the data, weighted numbers and weighted percentages of injury and poisoning episodes with unknowns are shown in [Table III](#).

MSA—See *Place of residence*.

Nature of injury—Nature of injury refers to one of the two dimensions of the Barell Injury Diagnosis Matrix. This dimension classifies the nature of injury and is based on ICD–9–CM codes in the Barell Matrix. For a detailed listing of the codes used in the matrix, see [Table I](#) in *Injury in the United States: 2007 Chartbook* (3). See related *Barell Injury Diagnosis Matrix (Barell Matrix), Body region, Injury condition*.

Place of occurrence—In NHIS, place of occurrence refers to the place where the injury occurred. Categories include home (inside); home (outside); school, child care center, or preschool; hospital or residential institution; street, highway, or parking lot; sport facility, recreation area, lake, river, or ocean; industrial or construction area; trade or service area; other public building; and other ([Table IV](#)). Only the first mentioned place was included in the tables for this report.

Place of residence—Place of residence is classified in this report in three categories: large metropolitan statistical area (MSA) of 1,000,000 or



SOURCE: CDC/NCHS, National Health Interview Survey, Field Representative's Flashcard and Information Booklet.

Figure I. National Health Interview Survey flashcard showing the predefined response list for body part injury

more persons, small MSA of less than 1,000,000 persons, and not in an MSA.

Generally, an MSA consists of a county or group of counties containing at least

one urbanized area with a population of 50,000 or more. In addition to the

Table III. Weighted numbers and weighted percentages of injury and poisoning episodes with unknowns, by selected characteristics: National Health Interview Survey, 1997–2007

	1997 ¹	1998 ¹	1999 ¹	2000	2001	2002	2003	2004	2005	2006	2007
Characteristic	Number in thousands										
Education, 25 years and over	201	348	177	258	263	198	211	338	183	416	164
Health insurance coverage, under 65 years . .	515	161	113	114	111	87	108	129	195	155	65
Current health status	20	90	109	35	38	72	48	33	23	174	0
Place of occurrence of episode, all	324	842	285	571	366	425	330	489	607	620	443
Activity at the time of episode, all	342	708	242	481	272	437	343	563	678	302	636
Characteristic	Percent										
Education, 25 years and over	0.96	1.70	0.96	1.71	1.78	1.50	1.43	1.69	0.89	1.94	0.77
Health insurance coverage, under 65 years . .	1.71	0.53	0.41	0.49	0.51	0.42	0.52	0.44	0.69	0.56	0.22
Current health status	0.06	0.26	0.35	0.14	0.16	0.31	0.20	0.10	0.07	0.52	0.00
Place of occurrence of episode, all	1.00	2.60	0.96	2.22	1.50	1.84	1.40	1.48	1.83	1.86	1.29
Activity at the time of episode, all	1.06	2.19	0.81	1.87	1.12	1.89	1.45	1.70	2.04	0.91	1.85

¹Estimates for place of occurrence and activity exclude poisoning as respondents were not asked to report a place of occurrence or activity for episodes of poisoning.

county or counties that contain all or part of the urbanized area, an MSA may contain other adjacent counties that are economically and socially integrated with the central city. The number of adjacent counties included in an MSA is not limited, and boundaries may cross state lines. OMB defines metropolitan areas according to published standards that are applied to U.S. Census Bureau data. The definition of a metropolitan area is periodically revised.

For NHIS data for 1997 through 2005, the MSA definition was based on the 1993 OMB standards and 1990 Census data. Beginning in 2006, the MSA definition was based on the 2003 OMB standards and 2000 Census data.

The 2003 criteria for designating MSAs differ from the 1993 criteria in substantial ways, including simplification of the classification criteria of metropolitan areas. Analysts who compare NHIS frequencies across this transition in OMB standards need to recognize that some of the differences may be due to the change in the definitions of metropolitan areas. In the tables for this report, place of residence is based on variables in the in-house Household data file indicating MSA status and MSA size. For additional information about metropolitan statistical areas see the U.S. Census Bureau website at <http://www.census.gov/population/www/estimates/>

[metrodef.html](#).

Poverty status—Poverty status is determined by the family income, family size, number of children in the family, age of the adults in the family (for families with two or fewer adults), and by the U.S. Census Bureau's poverty thresholds. Reported and imputed family income are used to calculate family income as a percent of poverty level. See related *Family income*.

Rate—A rate is a measure of some event, disease, or condition in relation to a unit of population, along with some specification of time. See related *Age adjustment, Population*.

Region—In the geographic classification of the U.S. population,

Table IV. Predefined response list for places of occurrence, by year: National Health Interview Survey, 1997–2007

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Home (inside)	X	X	X	X	X	X	X	X	X	X	X
Home (outside)	X	X	X	X	X	X	X	X	X	X	X
School (not residential)	X	X	X	X	X	X	X	X	X	X	X
Child care center or preschool	X	X	X	X	X	X	X	X	X	X	X
Residential institution (excluding hospital)	X	X	X	X	X	X	X	X	X	X	X
Health care facility (including hospital)	X	X	X	X	X	X	X	X	X	X	X
Street or highway	X	X	X	X	X	X	X	X	X	X	X
Sidewalk	–	–	–	–	–	–	–	X	X	X	X
Parking lot	X	X	X	X	X	X	X	X	X	X	X
Sport facility, athletic field, or playground	X	X	X	X	X	X	X	X	X	X	X
Trade and service areas (restaurant, store, bank, or gas station)	X	X	X	X	X	X	X	–	–	–	–
Shopping center, restaurant, store, bank, gas station, or other place of business	–	–	–	–	–	–	–	X	X	X	X
Farm	X	X	X	X	X	X	X	X	X	X	X
Park or recreation area (fields, bike or jog path)	X	X	X	X	X	X	X	–	–	–	–
Park or recreation area (include bike or jog path)	–	–	–	–	–	–	–	X	X	X	X
River, lake, stream, or ocean	X	X	X	X	X	X	X	X	X	X	X
Swimming pool	X	X	X	–	–	–	–	–	–	–	–
Industrial or construction area	X	X	X	X	X	X	X	X	X	X	X
Mine or quarry	X	X	X	–	–	–	–	–	–	–	–
Other public building	X	X	X	X	X	X	X	X	X	X	X
Other	X	X	X	X	X	X	X	X	X	X	X

X Category in response list.

– Category not in response list.

states and the District of Columbia are grouped into the following four regions by the U.S. Census Bureau:

Northeast (Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania)

Midwest (Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska)

South (Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas)

West (Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii)

Relative standard error—The relative standard error (RSE) is a measure of an estimate's reliability. The RSE of an estimate is obtained by dividing the standard error of the estimate $SE(r)$ by the estimate itself (r). This quantity is expressed as a percentage of the estimate and is calculated as follows:

$$RSE = 100 \times (SE(r)/r)$$

Estimates with large RSEs are considered unreliable. Estimates with RSEs greater than 30% and less than or equal to 50% are considered statistically unreliable and are indicated with an asterisk (*). Estimates with relative standard errors greater than 50% are indicated with a dagger (†) and are not shown.

Rounding of estimates—Data shown in the text are sometimes rounded to the nearest whole number, whereas the data tables show numbers rounded to one decimal place. The frequencies of episodes and conditions shown in the data tables and appendix tables are rounded to the nearest thousand. The whole numbers in the text are based on the unrounded estimates. For example, if the data table shows 10.5, that may be the result of an estimate of 10.476. The whole number in the text would be 10. The only exceptions to data tables showing more than one decimal place occur when the standard error (SE) is

greater than 0.0 but less than 0.5; those SEs are shown to two decimal places.

Significance testing—When testing the difference between two rates, R_1 and R_2 , the normal approximation may be used to calculate a test statistic, Z , such that

$$Z = (R_1 - R_2) / \text{SQRT} (SE(R_1)^2 + SE(R_2)^2)$$

If $|Z| \geq 1.96$, then the difference between the rates is considered statistically significant at the 0.05 level.

If $|Z| < 1.96$, then the difference is not considered statistically significant.

Unknowns—see *Missing value*.

Appendix II

Injury Questions, Structure of NHIS Data Files, Injury Variables, and File Location by Year, 1997–2007

The NHIS Survey Questionnaires and Survey Description Documents for the years 1997–2007 are available on the NHIS website at <http://www.cdc.gov/nchs/nhis.htm>. The injury section of the questionnaire, referred to as the FIJ section, is included in the Family Core of NHIS. Table V provides the question wording and can be cross-referenced with Table VI, which shows information for locating the variable within NHIS data files.

Structure of NHIS data files

Injury data used in this report are provided in four data files in the years 1997–1999: the “Person” file, “Injury Episode” file, “Poison Episode” file, and the “Injury Verbatim” file. Data are provided in three files in the years 2000–2007: the “Person” file, “Injury/Poison Episode” file, and the “Injury/Poison Verbatim” file. The episode and verbatim files have a record for each episode of injury reported (i.e., they are episode-level files).

For this report, the episode-level files were linked to the “Person” file using the household serial number, family serial number, and person number available on all files. It is possible to link other NHIS files such as the “Household” file and the “Family” file using, where appropriate, the household serial number, family serial number, and person number.

Detailed demographic and health information is collected from a Sample Adult questionnaire and a Sample Child questionnaire. The injury specific files can be linked to the Sample Adult file or Sample Child file. This report contains no statistics estimated from data obtained during the Sample Adult or Sample Child interviews. However, because there is interest in the method

for doing this in the research community, the next two paragraphs outline the procedure for linking.

Information on the Sample Adult file is self-reported, except in rare cases in which the Sample Adult is physically or mentally incapable of responding. Information on the Sample Child file is collected from an adult who is knowledgeable about the child’s health. Note that the injury section is not re-administered in the Sample Adult or Child interview, so the injury data may be proxy reported by the family respondent.

When using a linked Injury/Poison Episode file and Sample Adult (or Sample Child) file, analysis should be limited to those episodes for persons included in the Sample Adult (or Sample Child) file, and the Sample Adult (or Sample Child) weight should be applied. Estimates of injury from the Sample Adult or Sample Child will be different from the estimates of injury from the Family Core. The difference between the estimates may be related to random error due to the sampling variation and also systematic error due to misreporting of proxy respondents.

Table V. Injury questions, by year: National Health Interview Survey, 1997–2007

Year	Question ID	Question
Introduction to injury section and screen questions		
1997–1999	FIJ.010	Injuries are a major health problem. In order to develop new ways to help prevent both accidental and intentional injuries, we need to know more about them. In this next set of questions, I will ask about injuries that happened in the past 3 months; Note here that we are only interested in injuries that required medical advice or treatment. DURING THE PAST THREE MONTHS, that is since , [91 days before today's date], [were/was] [you/anyone in the family] injured seriously enough that [you/they] got medical advice or treatment?
2000–2003	FIJ.010	In this next set of questions, I will ask about INJURIES AND POISONINGS that happened in the PAST THREE MONTHS; that REQUIRED MEDICAL ADVICE OR TREATMENT, including calls to a poison control center. DURING THE PAST THREE MONTHS, that is since [91 days before today's date], [were/was] [you/anyone in the family] injured or poisoned seriously enough that [you/they] got medical advice or treatment?
2004–2007	FIJ.010_01.000	The next set of questions is about INJURIES AND POISONINGS. People can be injured or poisoned unexpectedly, accidentally or on purpose. They may have hurt themselves or others may have caused them to be hurt. DURING THE PAST THREE MONTHS, that is since [fill1: (date 91 days before today's date)], [fill2: did you/did you or anyone in your family] have an injury where any part of [fill3: your/the] body was hurt, for example, with a [fill4: (random set of injury examples)]? See Appendix III for random set of injury examples.
1997–1999	FIJ.020	Who was this? (Anyone else?)
2000–2007	FIJ.012_00.000	Who was this? (Anyone else?)
2004–2007	FIJ.014_00.000	DURING THE PAST THREE MONTHS, how many different times [fill: were you/was ALIAS] injured?
2004–2007	FIJ.016_00.000	Did [fill1: you/ALIAS] talk to or see a medical professional about [fill2: any of these injuries/this injuries/this injury/your injury or injuries/his injury or injuries/her injury or injuries]?
1997–1999	FIJ.030	How many different times in the past three months [were/was] [you/subject's name] injured seriously enough to seek medical advice?
2000	FIJ.030	How many different times in the PAST THREE MONTHS did [you/subject's name] SEEK MEDICAL ADVICE because [you/subject's name] [were/was] injured or poisoned?
2001–2003	FIJ.030	How many different times in the PAST THREE MONTHS [were/was] [you/subject's name] injured or poisoned seriously enough to seek medical advice or treatment?
2004–2007	FIJ.018_00.000	Of [fill1: the number of times reported in question FIJ.014_00.000/all the] times that [fill2: you were/ALIAS was] injured, how many of those times was the injury serious enough that a medical professional was consulted?
1997–1999	FIJ.300	The next questions are about POISONING, which includes coming into contact with harmful substances, and overdose or wrong use of any drug or medication. Do not include any illnesses such as poison ivy or food poisoning. DURING THE PAST THREE MONTHS, that is since [91 days before today's date], did [you/anyone in the family] have a poisoning that caused someone to seek medical advice or treatment, including calls to a poison control center?
2000–2003	FIJ.010	In this next set of questions, I will ask about INJURIES AND POISONINGS that happened in the PAST THREE MONTHS; that REQUIRED MEDICAL ADVICE OR TREATMENT, including calls to a poison control center. DURING THE PAST THREE MONTHS, that is since [91 days before today's date], [were/was] [you/anyone in the family] injured or poisoned seriously enough that [you/they] got medical advice or treatment?
2004–2007	FIJ.020_00.000	DURING THE PAST THREE MONTHS, that is since [fill1: (date 91 days before today's date)], [fill2: were you/was anyone in your family] poisoned by swallowing or breathing in a harmful substance such as bleach, carbon monoxide, or too many pills or drugs? Do not include food poisoning, sun poisoning, or poison ivy rashes.
1997–1999	FIJ.310	Who was this? (Anyone else?)
2000–2003	FIJ.020	Who was this? (Anyone else?)
2004–2007	FIJ.022_00.000	Who was this? (Anyone else?)
2004–2007	FIJ.024_00.000	DURING THE PAST THREE MONTHS, how many different times [fill: were you/was ALIAS] poisoned? Do not include food poisoning, sun poisoning, or poison ivy rashes.
2004–2007	FIJ.026_00.000	Did [fill1: you/ALIAS] talk to or see a medical professional about [fill2: any of these poisonings/this poisoning/your poisoning or poisonings/his poisoning or poisonings/her poisoning or poisonings]?
1997–1999	FIJ.320	How many different times in the PAST THREE MONTHS [were/was] [you/subject's name] poisoned?
2000	FIJ.030	How many different times in the PAST THREE MONTHS did [you/subject's name] SEEK MEDICAL ADVICE because [you/subject's name] [were/was] injured or poisoned?
2001–2003	FIJ.030	How many different times in the PAST THREE MONTHS [were/was] [you/subject's name] injured or poisoned seriously enough to seek medical advice or treatment?
2004–2007	FIJ.028_00.000	Of [fill1: the number of times reported in question FIJ.024_00.000/all the] times that [fill2: you were/ALIAS was] poisoned, how many of those times was the poisoning serious enough that a medical professional was consulted?

Table V. Injury questions, by year: National Health Interview Survey, 1997–2007—Con.

Year	Question ID	Question
Date of injury		
1997–1999	FIJ.040	If only one injury: When did [subject's name] injury happen? If more than one injury: Now I'm going to ask a few question about [subject's name] most recent injury. When did that injury happen? We just talked about [subject's name's] injury on [recent injury date]. When did [subject's name] injury BEFORE THAT happen?
2000–2003	FIJ.040	If only one injury/poisoning: Now I'm going to ask a few questions about [your/subject's name] most recent injury/poisoning. When did it happen? If there are additional injuries/poisonings: We just talked about [your/subject's name]'s injury/poisoning on [recent injury/poisoning date]. When did [your/subject's name]'s injury/poisoning BEFORE THAT happen?
2004–2007	FIJ.050_01.000 FIJ.050_02.000 FIJ.050_03.000	[If only one injury/poisoning: Now I'm going to ask a few questions about [your/subject's name]'s most recent injury/poisoning. When did it happen? If there are additional injuries/poisonings; We just talked about [your/subject's name]'s injury/poisoning on [recent injury/poisoning date]. When did [your/subject's name]'s injury/poisoning BEFORE THAT happened?
2004–2007	FIJ.050_01.000 FIJ.050_02.000 FIJ.050_03.000	[If only 1 injury/poisoning episode for the person]: When did [fill1: your/ALIAS's] [fill2: injury/poisoning] happen for which a medical professional was consulted? [first of multiple injury/poisoning episodes for the person]: Now I'm going to ask a few questions about the [fill3: the number of times injured/poisoned reported in question FIJ.018_00.00/FIJ.028_00.000] times [fill4: you were/ALIAS was [fill5: injured/poisoned] for which a medical professional was consulted. Starting with the most recent time, when did this [fill2: injury/poisoning] happen? [second plus of multiple injury/poisoning episodes for the person]: You just told me about [fill1: your/ALIAS's] [fill6: (month, day of previous event)] [fill7: most recent/second most recent/third most recent/fourth most recent] [fill2: injury/poisoning]. What was the date of the [fill2: injury before that for which a medical professional was consulted?
2004–2007	FIJ.051_01.000 FIJ.051_02.000	Can you tell me approximately how long ago [fill1: your/ALIAS's] [fill2: injury/poisoning] happened? Enter number for time since event. Enter number for time period since event.
2004–2007	FIJ.052_00.000	Was this in the beginning of [fill: month reported in question FIJ.050_01.000] the middle of [fill: month reported in question FIJ.050_01.000], or the end of [fill: month reported in question FIJ.050_01.000]?
1997–1999	FIJ.330	If only one poisoning: When did [subject's name] poisoning happen? If more than one poisoning: Now I'm going to ask a few question about [subject's name] most recent poisoning. When did that poisoning happen? We just talked about [subject's name] poisoning on [recent poisoning date]. When did [subject's name] poisoning BEFORE THAT happen?
2000–2003	FIJ.040	If only one injury/poisoning: Now I'm going to ask a few questions about [your/subject's name]'s most recent injury/poisoning. When did it happen? If there are additional injuries/poisonings: We just talked about [your/subject's name]'s injury/poisoning on [recent injury/poisoning date]. When did [your/subject's name]'s injury/poisoning BEFORE THAT happen?
2004–2007	FIJ.050_01.000 FIJ.050_02.000 FIJ.050_03.000	[If only 1 injury/poisoning episode for the person]: When did [fill1: your/ALIAS's] [fill2: injury/poisoning] happen for which a medical professional was consulted? [first of multiple injury/poisoning episodes for the person]: Now I'm going to ask a few questions about the [fill3: the number of times injured/poisoned reported in question FIJ.018_00.00/FIJ.028_00.000] times [fill4: you were/ALIAS was [fill5: injured/poisoned] for which a medical professional was consulted. Starting with the most recent time, when did this [fill2: injury/poisoning] happen? [second plus of multiple injury/poisoning episodes for the person]: You just told me about [fill1: your/ALIAS's] [fill6: (month, day of previous event)] [fill7: most recent/second most recent/third most recent/fourth most recent] [fill2: injury/poisoning]. What was the date of the [fill2: injury before that for which a medical professional was consulted?
Nature of injury		
1997–1999	FIJ.050	At the time of the injury, what part(s) of [subject's name] body was hurt? What kind of injury was it? Anything else?
2000–2003	FIJ.050	At the time, what part(s) of [your/subject's name]'s body was/were hurt? What kind of injury/poisoning was it? Anything else?
2004		These became separate questions that only ask about injuries. This injury information can now be found in questions FIJ.070_00.000-FIJ.079_00.000.
2004–2007	FIJ.070_00.000	In this injury, what parts of [fill: your/ALIAS's] body were hurt? (Record up to 4 responses)
2004–2007	FIJ.071_00.000	What other parts of the body were hurt?
2004–2007	FIJ.072_00.000	In what way was [fill1: your/ALIAS's] [fill2: first recorded response to question FIJ.070_00.000 or response to question FIJ.071_00.000] hurt? (Record up to 2 responses)
2004–2007	FIJ.073_00.000	How was [fill1: your/ALIAS's] [fill2: first recorded response to question FIJ.070_00.000 or response to question FIJ.071_00.000] hurt?
2004–2007	FIJ.074_00.000	In what way was [fill1: your/ALIAS's] [fill2: first recorded response to question FIJ.070_00.000 or response to question FIJ.071_00.000] hurt? (Record up to 2 responses)
2004–2007	FIJ.075_00.000	How was [fill1: your/ALIAS's] [fill2: second recorded response to question FIJ.070_00.000 or response to question FIJ.071_00.000] hurt?
2004–2007	FIJ.076_00.000	In what way was [fill1: your/ALIAS's] [fill2: third recorded response to question FIJ.070_00.000 or response to question FIJ.071_00.000] hurt? (Record up to 2 responses)
2004–2007	FIJ.077_00.000	How was [fill1: your/ALIAS's] [fill2: third recorded response to question FIJ.070_00.000 or response to question FIJ.071_00.000] hurt?

Table V. Injury questions, by year: National Health Interview Survey, 1997–2007—Con.

Year	Question ID	Question
2004–2007	FIJ.078_00.000	In what way was [fill1: your/ALIAS's] [fill2: fourth recorded response to question FIJ.070_00.000 or response to question FIJ.071_00.000] hurt? (Record up to 2 responses)
2004–2007	FIJ.079_00.000	How was [fill1: your/ALIAS's] [fill2: fourth recorded response to question FIJ.070.000 or response to question FIJ.071_00.000] hurt?
Cause of injury (see also cause specific follow on questions)		
1997–1999	FIJ.070	How did [subject's name] injury(s) happen? Please describe fully the circumstances or events leading to the injury(s), and any object, substance, or other person involved.
2000–2003	FIJ.070	How did [your/subject's name]'s injury/poisoning happen? Please describe fully the circumstances or events leading to the injury/poisoning, and any object, substance, or other person involved.
2004–2007	FIJ.060_00.000	[fill1: How did [fill2: your/ALIAS's] [fill3: injury/poisoning] on [fill4: response to questions FIJ.050_01.000 and FIJ.050_02.000] (starting with most recent if multiple)] happen?/How did this [fill3: injury/poisoning] happen? Please describe fully the circumstances or events leading to the [fill3: injury/poisoning], and any objects, substances, or other people involved.
1997–1999	FIJ.080	This is not a question. The FR is asked to select from a list the one that best describes the person's injury.
2000–2003	FIJ.080	This is not a question. The FR is asked to select from a list the one that best describes the person's injury.
2004–2007	FIJ.065_00.000	This is not a question. The FR is asked to select from a list the one that best describes the person's injury.
1997–1999	FIJ.340	Did [you/subject's name] poisoning result from:
1997–1999	FIJ.350	Not a question. Description of how the poisoning happened
2000–2003	FIJ.195	Did [you/subject's name] poisoning result from:
2004–2007	FIJ.141_00.000	How did [fill: your/ALIAS's] poisoning occur?
2004–2007	FIJ.140_00.000	What did [fill: your/ALIAS's] poisoning result from?
Activity at time of injury		
1997	FIJ.200	What [were/was] [you/subject's name] doing when the injury(s) happened? (Record up to 2 responses)
1998–1999	FIJ.200	What [were/was] [you/subject's name] doing when the injury(s) happened? (Record up to 2 responses)
2000–2003	FIJ.200	What [were/was] [you/subject's name] doing when the injury/poisoning happened? (Record up to 2 responses)
2004–2007	FIJ.150_00.000	What activity [fill1: were you/was ALIAS] involved in at the time of the [fill2: injury/poisoning]? (Record up to 2 responses)
2004–2007	FIJ.151_00.000	What other activity [fill1: were you/was ALIAS] involved in at the time of the [fill2: injury/poisoning]?
Place of occurrence		
1997	FIJ.220	Where [were/was] [you/subject's name] when the injury(s) happened? (Record up to 2 responses)
1998–1999	FIJ.220	Where [were/was] [you/subject's name] when the injury(s) happened? (Record up to 2 responses)
2000–2003	FIJ.221	Where [were/was] [you/subject's name] when the injury/poisoning happened? (Record up to 2 responses)
2004–2007	FIJ.160_00.000	Where [were/was] [you/subject's name] when the injury/poisoning happened? (Record up to 2 responses)
Source of medical care		
1997–1999	FIJ.360	Did you or did someone else call a poison control center for advice in treating [subject's name] poisoning?
2000–2003		Combined with injury question. No longer a separate question. Now included as a response category for question FIJ.045.
2000–2003	FIJ.045	Where did [you/subject's name] receive MEDICAL ADVICE OR TREATMENT for this injury/poisoning? Anywhere else? (Mark all that apply)
2004		These became separate questions. The same information or similar information is now found in questions FIJ.080_1.000-FIJ.081_00.00.
2004–2007	FIJ.080_01.000	Did [fill: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-UP CARE for this poisoning from A phone call to a poison control center?
2004–2007	FIJ.080_02.000	Did [fill1: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-UP CARE for this [fill2: injury/poisoning]? An emergency vehicle, such as an ambulance or fire truck?
2004–2007	FIJ.080_03.000	Did [fill1: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-UP CARE for this [fill2: injury/poisoning]? A visit to an emergency room?

Table V. Injury questions, by year: National Health Interview Survey, 1997–2007—Con.

Year	Question ID	Question
2004–2007	FIJ.080_04.000	Did [fill1: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-UP CARE for this [fill2: injury/poisoning]? A visit to a doctor's office or other health clinic?
2004–2007	FIJ.080_05.000	Did [fill1: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-UP CARE for this [fill2: injury/poisoning]? A phone call to a doctor, nurse, or other health care professional?
2004–2007	FIJ.080_06.000	Did [fill1: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-UP CARE for this [fill2: injury/poisoning]? Any place else?
2004–2007	FIJ.081_00.000	Where else did [fill1: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-UP CARE for this [fill2: injury/poisoning]?
2004–2007	FIJ.082_00.000	[fill1: You/ALIAS] DID NOT receive any medical advice, treatment, or follow-up for this [fill2: injury/poisoning]. Is that correct?
1997–1999	FIJ.240	[Were/Was] [you/subject's name] hospitalized for at least one night as a result of this injury/these injuries?
2000–2003		No longer a separate question. Now included as a response category for question FIJ.045.
2004–2007	FIJ.090_00.000	F1 [fill1: Were you/Was ALIAS] hospitalized for at least one night as a result of this [fill2: injury/poisoning]?
1997–1999	FIJ.250	How many nights [were/was] [you/subject's name] in the hospital?
2000–2003	FIJ.047	How many nights [were/was] [you/subject's name] in the hospital?
2004–2007	FIJ.091_00.000	How many nights [were/was] [you/subject's name] in the hospital?
1997–1999	FIJ.370	[Were/was] [you/subject's name] hospitalized for at least one night as a result of the poisoning?
1997–1999	FIJ.380	How many nights [were/was] [you/subject's name] in the hospital?
2000–2003		Combined with injury question. No longer a separate question. Now included as a response category for question FIJ.045.
2004–2007		Combined with injury question.
Work days lost		
1997–1999	FIJ.260	As a result of this injury/these injuries, how much work did [you/subject's name] miss?
1997–1999	FIJ.400	As a result of this poisoning, how much work did [you/subject's name] miss?
2000–2003	FIJ.260	As a result of this injury/poisoning, how much work did [you/subject's name] miss?
2004–2007	FIJ.170_00.000	At the time of this [fill1: injury/poisoning], [fill2: were you/was ALIAS] employed full-time, part-time, or not employed?
2004–2007	FIJ.171_00.000	As a result of this [fill1: injury/poisoning], how many days of work did [fill2: you/ALIAS] miss?
School days lost		
1997–1999	FIJ.270	As a result of this injury/these injuries, how much school did [you/subject's name] miss?
1997–1999	FIJ.410	As a result of this poisoning, how many days of school did [you/subject's name] miss?
2000–2003	FIJ.270	As a result of this injury/poisoning, how much school did [you/subject's name] miss?
2004–2007	FIJ.180_00.000	At the time of this [fill1: injury/poisoning], [fill2: were you/was ALIAS] a full-time student, part-time student or not a student?
2004–2007	FIJ.181_00.000	As a result of this [fill1: injury/poisoning], how many days of school did [fill2: you/ALIAS] miss?
Limitations in activity		
1997–1999	FIJ.280	As a result of this injury/these injuries [do/does] [you/subject's name] now need the help of other persons with [your/his/her] personal care needs, such as eating, bathing, dressing or getting around this home?
2000–2003	FIJ.280	As a result of this injury/poisoning [do/does] [you/subject's name] now need the help of other persons with [your/his/her] personal care needs, such as eating, bathing, dressing, or getting around this home?
2004		Question no longer included in the survey.
1997–1999	FIJ.285	Do you expect [you/subject's name] will need this help for a total of 6 months or longer?
2000–2003	FIJ.285	Do you expect [you/subject's name] will need this help for a total of 6 months or longer?
2004		Question no longer included in the survey.
1997–1999	FIJ.290	As a result of this injury/these injuries [do/does] [you/subject's name] now need the help of other persons in handling routine needs such as everyday household chores, doing necessary business, shopping or getting around for other purposes?

Table V. Injury questions, by year: National Health Interview Survey, 1997–2007—Con.

Year	Question ID	Question
2000–2003	FIJ.290	As a result of this injury/poisoning [do/does] [you/subject's name] now need the help of other persons in handling routine needs such as everyday household chores, doing necessary business, shopping or getting around for other purposes?
2004		Question no longer included in the survey.
1997–1999	FIJ.295	Do you expect [you/subject's name] will need this help for a total of 6 months or longer?
2000–2003	FIJ.295	Do you expect [you/subject's name] will need this help for a total of 6 months or longer?
2004		Question no longer included in the survey.
Cause specific follow on questions		
Transportation related		
2004–2007	FIJ.109_00.000	Did this accident occur on a public highway, street, or road?
1997–1999	FIJ.090	[Were/was] [you/subject's name] injured as the driver of a vehicle, a passenger in a vehicle, a bicycle rider, or as a pedestrian?
2000–2003	FIJ.090	[Were/was] [you/subject's name] injured as the driver of a vehicle, a passenger in a vehicle, a bicycle rider, or as a pedestrian?
2004–2007	FIJ.110_00.000	[fill: Were you/Was ALIAS] injured as:
1997–1999	FIJ.100	What type of vehicle [were/was] [you/subject's name] in?
2000–2003	FIJ.100	What type of vehicle [were/was] [you/subject's name] in?
2004–2007	FIJ.111_00.000	What type of vehicle [were/was] [you/subject's name] in?
1997–1999	FIJ.120	If age is greater than 4 years: [Were/Was] [you/subject's name] wearing a safety belt at the time of the accident? If age is less than 5 years: [Were/Was] [you/subject's name] buckled in a car safety seat at the time of the accident?
2000–2003	FIJ.120	If age is greater than 4 years: [Were/Was] [you/subject's name] wearing a safety belt at the time of the accident? If age is less than 5 years: [Were/Was] [you/subject's name] buckled in a car safety seat at the time of the accident?
2004–2007	FIJ.112_00.000	[fill: Were you/Was ALIAS] restrained at the time of the accident?
1997–1999	FIJ.130	[Were/Was] [you/subject's name] wearing a helmet at the time of the accident?
2000–2003	FIJ.130	[Were/Was] [you/subject's name] wearing a helmet at the time of the accident?
2004–2007	FIJ.113_00.000	[Were/Was] [you/subject's name] wearing a helmet at the time of the accident?
1997–1999	FIJ.140	What type of vehicle [were/was] [you/subject's name] struck by?
2000–2003	FIJ.140	What type of vehicle [were/was] [you/subject's name] struck by?
2004		Question no longer included in the survey.
Burn related		
1997–1999	FIJ.150	What was it that burned/scalded [you/subject's name]? IF RESPONSE IS FIRE OR SMOKE ASK: What caused the fire/smoke?
2000–2003	FIJ.150	What was it that burned/scalded [you/subject's name]? IF RESPONSE IS FIRE OR SMOKE ASK: What caused the fire/smoke?
2004		Question no longer included in the survey.
Drowning related		
1997–1999	FIJ.160	What body of water was involved?
2000		Question no longer included in the survey.
Fall related		
1997	FIJ.170	How did [you/subject's name] fall? Anything else? (Record up to 2 responses)
1998–1999	FIJ.170	How did [you/subject's name]fall? Anything else? (Record up to 2 responses)
2000–2003	FIJ.171	How did [you/subject's name] fall? Anything else? (Record up to 2 responses)
2004–2007	FIJ.130_00.000	How did [you/subject's name] fall? Anything else? (Record up to 2 responses)
1997–1999	FIJ.180	What caused [you/subject's name] to fall? Was it due to:

Table V. Injury questions, by year: National Health Interview Survey, 1997–2007—Con.

Year	Question ID	Question
2000–2003	FIJ.180	What caused [you/subject's name] to fall? Was it due to:
2004–2007	FIJ.131_00.000	What caused [you/subject's name] to fall?
Firearm related		
1997–1999	FIJ.190	What kind of gun was it?
2000		Question no longer included in the survey.
Animal related		
2000–2003	FIJ.191	What type of animal or insect bit [you/subject's name]?
2004		Question no longer included in the survey.

Table VI. Injury variables and file locations, by year

Year ¹	Question ID ²	Variable name suggested on public use file ³	File location of variable ⁴
Introduction to injury section and screen questions			
1997–1999	FIJ.010	n/a	
2000–2003	FIJ.010	n/a	
2004–2007	FIJ.010_01.000	n/a	
1997–1999	FIJ.020	PINJ3MR	Person
2000–2007	FIJ.012_00.000	n/a	
2004–2007	FIJ.014_00.000	n/a	
2004–2007	FIJ.016_00.000	n/a	
1997–1999	FIJ.030	INJCT	Person
2000	FIJ.030	n/a	
2001–2003	FIJ.030	n/a	
2004–2007	FIJ.018_00.000	n/a	
1997–1999	FIJ.300	n/a	
2000–2003	FIJ.010	n/a	
2004–2007	FIJ.020_00.000	n/a	
1997–1999	FIJ.310	PPOIS3MR	Person
2000–2003	FIJ.020	n/a	
2004–2007	FIJ.022_00.000	n/a	
2004–2007	FIJ.024_00.000	n/a	
2004–2007	FIJ.026_00.000	n/a	
1997–1999	FIJ.320	POICT	Person
2000	FIJ.030	n/a	
2001–2003	FIJ.030	n/a	
2004–2007	FIJ.028_00.000	n/a	
Date of injury			
1997–1999	FIJ.040	IJDATE_M IJDATE_Y DAY	Injury episode
2000–2003	FIJ.040	IJDATE_M IJDATE_Y DAY	Injury/poisoning episode
2004–2007	FIJ.050_01.000 FIJ.050_02.000 FIJ.050_03.000	IPDATEM IPDATEY	Injury/poisoning episode
2004–2007	FIJ.051_01.000 FIJ.051_02.000	IPDATENO IPDATETP	Injury/poisoning episode
2004–2007	FIJ.052_00.000	IPDATEMT	Injury/poisoning episode
1997–1999	FIJ.330	POIDTEM POIDTEY PDAY	Poisoning episode
2000–2003	FIJ.040	IJDATE_M IJDATE_Y DAY	Injury/poisoning episode
2004–2007	FIJ.050_01.000 FIJ.050_02.000 FIJ.050_03.000	IPDATEM IPDATEY	Injury/poisoning episode
Nature of injury			
1997–1999	FIJ.050	IJBODY1-IJBODY4 IJKIND1- IJKIND4	Verbatim episode
2000–2003	FIJ.050	IJBODY1-IJBODY4 IJKIND1- IJKIND4	Verbatim episode
2004–2007	FIJ.070_00.000	IJBODY1-IJBODY4	Injury/poisoning episode
2004–2007	FIJ.071_00.000	IJBODYOS	Verbatim episode
2004–2007	FIJ.072_00.000	IJTYPE1A IJTYPE1B	Injury/poisoning episode
2004–2007	FIJ.073_00.000	IJTYPE1OS	Verbatim episode
2004–2007	FIJ.074_00.000	IJTYPE2A IJTYPE2B	Injury/poisoning episode
2004–2007	FIJ.075_00.000	IJTYPE2OS	Verbatim episode
2004–2007	FIJ.076_00.000	IJTYPE3A IJTYPE3B	Injury/poisoning episode
2004–2007	FIJ.077_00.000	IJTYPE3OS	Verbatim episode
2004–2007	FIJ.078_00.000	IJTYPE4A IJTYPE4B	Injury/poisoning episode
2004–2007	FIJ.079_00.000	IJTYPE4OS	Verbatim episode
Cause of injury (see also cause specific follow on questions)			
1997–1999	FIJ.070	IJHOW1-IJHOW4	Verbatim episode
2000–2003	FIJ.070	IJHOW1-IJHOW4	Verbatim episode
2004–2007	FIJ.060_00.000	IPHOW	Verbatim episode
1997–1999	FIJ.080	CAUS	Injury episode
2000–2003	FIJ.080	CAUSNEW	Injury/poisoning episode
2004–2007	FIJ.065_00.000	ICAUS	Injury/poisoning episode
1997–1999	FIJ.340	POITPR2	Poisoning episode
1997–1999	FIJ.350	n/a	
2000–2003	FIJ.195	POITP	Injury/poisoning episode
2004–2007	FIJ.141_00.000	PPOISOS	Verbatim episode
2004–2007	FIJ.140_00.000	PPOIS	Injury/poisoning episode

See footnotes and at end of table.

Table VI. Injury variables and file locations, by year—Con.

Year ¹	Question ID ²	Variable name suggested on public use file ³	File location of variable ⁴
Activity at time of injury			
1997	FIJ.200	WHAT1-WHAT11	Injury episode
	WHAT1CT-WHAT11CT	Person	
1998–1999.	FIJ.200	WHAT_1	Injury episode
		WHAT_2	
	WHAT1CT-WHAT11CT	WHAT1-WHAT11	
		Person	
2000–2003.	FIJ.200	WHAT_1	Injury/poisoning episode
		WHAT_2	
2004–2007.	FIJ.150_00.000	WHAT1-WHAT11	Injury/poisoning episode
		IPWHAT1	
		IPWHAT2	
2004–2007.	FIJ.151_00.000	IPWHATOT	Verbatim episode
Place of occurrence			
1997	FIJ.220	WHER1-WHER18	Injury episode
	WHER1CT-WHER18CT	Person	
1998–1999.	FIJ.220	WHER_1	Injury episode
		WHER_2	
	WHER1CT-WHER18CT	WHER1-WHER18	
		Person	
2000–2003.	FIJ.221	WHERNEW1	Injury/poisoning episode
		WHERNEW2	
		WHERN1-WHERN16	
2004–2007.	FIJ.160_00.000	IPWHER1	Injury/poisoning episode
		IPWHER2	
Source of medical care			
1997–1999.	FIJ.360	POICC	Poisoning episode
2000–2003.	FIJ.045	IJMED_2-IJMED_7	Injury/poisoning episode
2004–2007.	FIJ.080_01.000	PPCC	Injury/poisoning episode
2004–2007.	FIJ.080_02.000	IPEV	Injury/poisoning episode
2004–2007.	FIJ.080_03.000	IPER	Injury/poisoning episode
2004–2007.	FIJ.080_04.000	IPDO	Injury/poisoning episode
2004–2007.	FIJ.080_05.000	IPPCHCP	Injury/poisoning episode
2004–2007.	FIJ.080_06.000	IPTH	Injury/poisoning episode
2004–2007.	FIJ.081_00.000	IPTHOS	Injury/poisoning episode
2004–2007.	FIJ.082_00.000	n/a	
1997–1999.	FIJ.240	IHOSP	Injury episode
1997–1999.	FIJ.250	IHNO	Injury episode
1997–1999.	FIJ.370	PHOSP	Poisoning episode
1997–1999.	FIJ.380	PHNO	Poisoning episode
2004–2007.	FIJ.090_00.000	IPHOSP	Injury/poisoning episode
2000–2003.	FIJ.047	IHNO	Injury/poisoning episode
2004–2007.	FIJ.090_00.000	IPHOSP	Injury/poisoning episode
2004–2007.	FIJ.091_00.000	IPIHNO	Injury/poisoning episode
Work days lost			
1997–1999.	FIJ.260	WKLS	Injury episode
1997–1999.	FIJ.400	PWKLS	Poisoning episode
2000–2003.	FIJ.260	WKLS	Injury/poisoning episode
2004–2007.	FIJ.170_00.000	IPEMP	Injury/poisoning episode
2004–2007.	FIJ.171_00.000	IPWKLS	Injury/poisoning episode
School days lost			
1997–1999.	FIJ.270	SCLS	Injury episode
1997–1999.	FIJ.410	PSCLS	Poisoning episode
2000–2003.	FIJ.270	SCLS	Injury/poisoning episode
2004–2007.	FIJ.180_00.000	IPSTU	Injury/poisoning episode
2004–2007.	FIJ.181_00.000	IPSCLS	Injury/poisoning episode
Limitations in activity			
1997–1999.	FIJ.280	IJADL	Injury episode
2000–2003.	FIJ.280	IJADL	Injury/poisoning episode
1997–1999.	FIJ.285	LIMTM	Injury episode
2000–2003.	FIJ.285	LIMTM	Injury/poisoning episode
1997–1999.	FIJ.290	IJIAD	Injury episode
2000–2003.	FIJ.290	IJIAD	Injury/poisoning episode

See footnotes and at end of table.

Table VI. Injury variables and file locations, by year—Con.

Year ¹	Question ID ²	Variable name suggested on public use file ³	File location of variable ⁴
1997–1999	FIJ.295	HLIMIT	Injury episode
2000–2003	FIJ.295	HLIMIT	Injury/poisoning episode
Cause specific follow on questions			
Transportation related			
2004–2007	FIJ.109_00.000	IMTRAF	Injury/poisoning episode
1997–1999	FIJ.090	MVWHO	Injury episode
2000–2003	FIJ.090	MVWHO	Injury/poisoning episode
2004–2007	FIJ.110_00.000	IMVWHO	Injury/poisoning episode
1997–1999	FIJ.100	MVTYP	Injury episode
2000–2003	FIJ.100	MVTYP	Injury/poisoning episode
2004–2007	FIJ.111_00.000	IMVTYP	Injury/poisoning episode
1997–1999	FIJ.120	SBELT	Injury episode
2000–2003	FIJ.120	SBELT	Injury/poisoning episode
2004–2007	FIJ.112_00.000	ISBELT	Injury/poisoning episode
1997–1999	FIJ.130	HELMT	Injury episode
2000–2003	FIJ.130	HELMT	Injury/poisoning episode
2004–2007	FIJ.113_00.000	IHELMT	Injury/poisoning episode
1997–1999	FIJ.140	MVHIT	Injury episode
2000–2003	FIJ.140	MVHIT	Injury/poisoning episode
Burn related			
1997–1999	FIJ.150	BURN	Injury episode
2000–2003	FIJ.150	BURN	Injury/poisoning episode
Drowning related			
1997–1999	FIJ.160	WATER	Injury episode
Fall related			
1997	FIJ.170	FALL1-FALL14	Injury episode
1998–1999	FIJ.170	FALL_1 FALL_2 FALL1-FALL14	Injury episode
2000–2003	FIJ.171	FALLNEW1 FALLNEW2 FALLN1-FALLN10	Injury/poisoning episode
2004–2007	FIJ.130_00.000	IFALL1 IFALL2	Injury/poisoning episode
1997–1999	FIJ.180	FWHY	Injury episode
2000–2003	FIJ.180	FWHY	Injury/poisoning episode
2004–2007	FIJ.131_00.000	IFALLWHY	Injury/poisoning episode
Firearm related			
1997–1999	FIJ.190	GUNTP	Injury episode
Animal related			
2000–2003	FIJ.191	ANIMAL	Injury/poisoning episode

¹Year variable(s) on survey.²Reference ID for locating question on survey.³Suggested variable name from the public-use file.⁴Name of file the data are located in.

Appendix III

Example Lists for the Screening Question for the NHIS Injury Section and the Influence on the Survey Results

Creating the lists of examples

In NHIS, the screening question was redesigned based on extensive cognitive interviewing in the NCHS Questionnaire Design Research Laboratory (QDRL). One key finding of this interview process was that providing examples of injuries was helpful to respondents in defining injuries. Based on this, it was agreed that examples to define injuries for the respondent should be provided.

However, there was concern about the number and type of injuries included as examples. For instance, insect bites are classified as injuries, but should they be included in a list of examples?

The QDRL recommended that the examples should vary with respect to the types of conditions and severity. A random generating list of injuries would allow for a range in severity and conditions and would eliminate bias based on the respondent reporting injuries listed in the example list. However, randomly generating lists of injuries is difficult for survey design software. For example, should all injuries be given equal representation in

the examples or should the example be representative of the injuries seen?

The injury revision committee decided to have 10 different lists with 4 injury conditions per list to randomly assign to the injury screening question (10 example lists x 4 examples in each list = 40 example spaces). These spaces were numbered to help with placement of the random injury conditions.

Data from the 1998–2000 NHAMCS-ED were analyzed to determine the frequency of injury conditions (Table VII). The frequencies of injury conditions were used to determine the list so that the examples represent their proportion of all ED visits for injuries. To determine the number of times each injury condition would be listed, each injury condition's proportion was multiplied by 40. Then a list of the proportional distribution of injuries was selected. A list of numbers 1–40 was also made. An injury condition and number were selected at random. This was repeated until all 40 spaces were filled (reselection occurred only if the injury condition was already selected for the example row; e.g., the random injury list could not read “sprain, broken bone, sprain, bruise”) (Table VIII). Finally, 10 randomly generated, proportionally correct lists of example conditions were created (Table IX).

Do injury episodes reported vary by the example list provided?

Data from the 2005 and 2006 NHIS

injury section were used for this analysis. Age-adjusted injury and poisoning episode rates per 1,000 population were calculated by sex and by injury example lists as presented in the injury screen question during the interview. The standard errors were calculated using SUDAAN. The rate of injury for each example set was compared to the rate for the remainder of the injury sets.

Results of the analysis are shown in Table X. The rate of injury for each example set was not statistically different from the rate of injury for the remainder of the injuries, therefore there was no evidence indicating that people who were interviewed with certain examples reported higher or lower injury episode rates than other examples.

Conclusion

The wording of a screening question in a survey is crucial because if the question is misinterpreted, all the subsequent analyses will be biased. For injury related research, with a limited number of words for the screening question, the respondent needs to understand the definition of an injury. One way to facilitate understanding is to provide examples of injuries. This study showed that including example lists in the screening question elicits a variety of injury responses and that rotating the set of examples protects against any one injury type being overrepresented in the sample.

Table VII. Frequency and proportion of emergency department visits: National Hospital Ambulatory Medical Care Survey, 1998–2000

Type of injury	Frequency of ED	Percent	Number of spaces (Percent *40)
Cut or wound	22,072,166	26	10
Sprain or strain	19,077,545	22	10
Bruise	14,270,354	17	7
Broken bone.	11,288,204	13	5
Head injury	5,324,128	6	3
Abrasion (scrape)	3,099,369	4	2
Burn.	1,660,430	2	1
Dislocation.	1,402,263	2	1
Insect bite	694,180	1	1
Blister.	96,330	0	0
Foreign body	384,229	0	0
Near drowning	32,179	0	0
Total (only injuries).	85,310,211	100	40

Table VIII. Example lists of injury conditions

Example list 1	1. Cut or wound	2. Dislocation	3. Bruise	4. Sprain
Example list 2	5. Bruise	6. Cut or wound	7. Sprain	8. Head injury
Example list 3	9. Head injury	10. Sprain	11. Broken bone	12. Cut or wound
Example list 4	13. Sprain	14. Bruise	15. Cut or wound	16. Scrape
Example list 5	17. Cut or wound	18. Broken bone	19. Sprain	20. Burn
Example list 6	21. Cut or wound	22. Bruise	23. Broken bone	24. Sprain
Example list 7	25. Cut or wound	26. Sprain	27. Scrape	28. Broken bone
Example list 8	29. Head injury	30. Bruise	31. Cut or wound	32. Sprain
Example list 9	33. Bruise	34. Insect bite	35. Sprain	36. Cut or wound
Example list 10	37. Cut or wound	38. Sprain	39. Broken bone	40. Bruise

Table IX. Lists of example conditions

During the past three months, that is since (fill 1: date), [fill2: did you/did you or anyone in your family] have an injury where any part of [fill3: your/the] body was hurt, for example, with a [fill: random example list]?

[Fill options]

1.	Cut or wound, dislocation, bruise, or sprain
2.	Bruise, cut or wound, sprain, or head injury
3.	Head injury, sprain, broken bone, or cut or wound
4.	Sprain, bruise, cut or wound, or scrape
5.	Cut or wound, broken bone, sprain, or burn
6.	Cut or wound, bruise, broken bone, or sprain
7.	Cut or wound, sprain, scrape, or broken bone
8.	Head injury, bruise, cut or wound, or sprain
9.	Bruise, insect bite, sprain, or cut or wound
10.	Cut or wound, sprain, broken bone, or bruise

Table X. Age-adjusted injury episode rates (with standard errors), by listed example: 2005–2006

Injury examples	Both sexes	Male	Female
01 Cut or wound, dislocation, bruise, or sprain	122.7 (10.2)	127.9 (14.4)	115.1 (14.3)
02 Bruise, cut or wound, sprain, or head injury	101.9 (9.3)	106.5 (13.7)	96.3 (12.0)
03 Head injury, sprain, broken bone, or cut or wound	132.5 (12.3)	149.6 (19.5)	111.5 (13.3)
04 Sprain, bruise, cut or wound, or scrape	105.0 (10.0)	108.8 (13.8)	98.8 (13.2)
05 Cut or wound, broken bone, sprain, or burn	104.9 (9.3)	110.4 (13.7)	98.8 (12.5)
06 Cut or wound, bruise, broken bone, or sprain	109.1 (11.2)	129.4 (17.3)	88.3 (11.6)
07 Cut or wound, sprain, scrape, or broken bone	123.0 (9.5)	118.1 (11.9)	125.6 (13.8)
08 Head injury, bruise, cut or wound, or sprain	116.3 (10.5)	129.8 (15.9)	101.1 (14.1)
09 Bruise, insect bite, sprain, or cut or wound	112.5 (9.5)	126.5 (15.6)	98.9 (11.7)
10 Cut or wound, sprain, broken bone, or bruise	110.1 (10.2)	110.0 (13.5)	109.6 (14.5)

Appendix IV

Criteria Used to Identify Injury Episodes in NHIS, 1997–2007

This appendix provides a summary of the decisions made in the preprocessing of the injury records. Included are the basic inclusion or exclusion criteria used to identify injury episodes, notes regarding nature of injury and external cause coding, and some issues related to poisoning. For full details, please refer to the FIJ section of the NHIS Survey Description Documents for each year. NHIS Survey Questionnaires and Survey Description Documents for the years 1997–2007 are available on the NHIS website at <http://www.cdc.gov/nchs/nhis.htm>.

Data years 1997–2003: Determination of inclusion or exclusion of episodes

1. The narrative texts of the responses to several open-ended questions including “How did [person]’s injury/poisoning happen?” (referred to as verbatim responses) were reviewed (injury 1997–2003 and poisoning 2000–2003) by injury subject matter experts primarily for confidentiality, but also to flag noninjury records. At the time that the verbatim responses were reviewed, the ICD–9–CM codes were not available because the review was done before or at the same time as the data were coded. Any cases that were flagged as noninjury and agreed upon by at least three reviewers were removed.
2. If there was no information on the episode (*all* injury or poisoning question responses were “refused,” “not ascertained,” or “don’t know”), the record was removed from the final file. The assumption was that a blank episode record was generated by the computer software used in the interview but the respondent did not report an episode.

3. Episodes were included if they had at least one nature of injury code ICD–9–CM 800–999.

Data year 2004: Determination of inclusion or exclusion of episodes

1. The verbatim responses were reviewed by injury subject matter experts primarily for confidentiality but also to flag noninjury records. At the time that the verbatim responses were reviewed, the ICD–9–CM codes were not available because the review was done before or at the same time as the data were coded. Any cases that were flagged as noninjury and agreed upon by at least three reviewers were removed.
2. If there was no information on the episode (*all* injury or poisoning question responses were “refused,” “not ascertained,” or “don’t know”), the record was removed from the final file. The assumption was that a blank “episode” record was generated by the computer software used in the interview but the respondent did not report an episode.
3. Episodes were included if they had at least one nature of injury code 800–909.2, 909.4, 909.9, 910–994.9, 995.5–995.59, or 995.80–995.85.

Data year 2005: Determination of inclusion or exclusion of episodes

1. The verbatim responses were reviewed by injury subject matter experts primarily for confidentiality but also to flag noninjury records. At the time that the verbatim responses were reviewed, the ICD–9–CM codes were not available because the review was done before or at the same time as the data were coded. Any cases that were flagged as noninjury and agreed upon by at least three reviewers were removed.
2. If there was no information on the episode (*all* injury or poisoning question responses were “refused,”

“not ascertained” or “don’t know”), the record was removed from the final file. The assumption was that a blank episode record was generated by the computer software used in the interview but the respondent did not report an episode.

3. Episodes were included if they had at least one nature of injury code 800–909.2, 909.4, 909.9, 910–994.9, 995.5–995.59, or 995.80–995.85 *and* one external cause of injury code E800–E848, E850–E869.9, E880–E929.9, or E950–E999.

Data year 2006–2007: Determination of inclusion or exclusion of episodes

1. The verbatim responses were reviewed by injury subject matter experts primarily for confidentiality. The decision on whether to retain a case or not was based entirely on the ICD–9–CM nature of injury codes and external cause of injury codes assigned unless there was an obvious error in the code assigned.
2. If there was no information on the episode (*all* injury or poisoning question responses were “refused,” “not ascertained” or “don’t know”), the record was removed from the final file. The assumption was that a blank episode record was generated by the computer software used in the interview but the respondent did not report an episode.
3. Episodes were included if they had at least one nature of injury code 800–909.2, 909.4, 909.9, 910–994.9, 995.5–995.59, or 995.80–995.85 *and* one external cause of injury code E800–E848, E850–E869.9, E880–E929.9, or E950–E999.

Additional notes related to the inclusion or exclusion criteria for injury episodes

1. In the years 1997–1999, if a case was agreed to be an injury by the reviewers based upon all the available information, but the record did not include at least one valid ICD–9–CM code, then an

ICD–9–CM code was assigned during the preprocessing stage.

2. In the years 1997–2005, the order of the ICD–9–CM codes was changed if an invalid code was listed first. There were no instructions for the respondent to list the injury or circumstances in any order. The codes were derived from the verbatim responses without specific instructions with regard to order.
3. In the years 1997–2005, if no information about the external cause was reported (e.g., reported with a “don’t know” or “refused”), the E-code of E928.9 (“Unspecified accident”) was assigned. If no information about the nature of injury was reported, the nature code of 959.9 (“Injury unspecified”) was assigned.
4. Beginning in 2006, external cause codes and nature of injury codes assigned by the coders were not modified in preprocessing unless an obvious error was found.

Other comments related to nature of injury or external cause coding

1. For data year 2004, one episode with an ICD–9–CM code of 995.3 (“Allergy, unspecified”) was retained in the file based on the verbatim response given by the respondent to the question regarding how the injury occurred.
2. In the years 1997–1999, poisoning episodes did not have verbatim descriptions and as a result do not have associated E-codes or nature of injury codes. However, the cause of injury was asked using a response list in POITPR2.
3. According to coding guidelines, E849 (“Place code”) is never supposed to be used as a first-listed external cause code. In the years 1997–2004, E849 codes were included, and in some cases, they are the only E-code included. Beginning in 2005, place was not coded to ICD–9–CM because there is a separate question regarding place of injury occurrence.
4. External cause codes were not reported in any order and, in some cases, invalid codes such as place codes were reported and listed first. The external cause code summary field created in preprocessing (ECAUS) is based on the first-listed E-code and therefore, includes some invalid external cause codes.

Issues related to poisoning data: 1997–2007

1. Food poisonings are specifically excluded in the screen question however; it appears that a small number are reported each year. There is no way to identify food poisoning episodes reported before 2000 because there are no verbatim responses. In 2000, food poisoning was added as one of the categories in the response list for the question regarding the cause of the poisoning. In addition, poisonings were nature-of-injury and external cause coded.
2. From 1997 through 1999, about 20% of the poisonings were from “a venomous animal or plant,” while a very small percentage of 2000–2003 poisonings were in that category. It is likely that some of the poisonings from 1997 through 1999 from that category were food poisonings. However, because there is no way to identify food poisonings in the years 1997–1999, this cannot be verified.
3. Poisoning data for 1997–1999 should not be combined with poisoning data for 2000–2007.
4. In the years 1997–1999, allergic reactions and other nonpoisonings can be removed by the analyst using the field for “cause of poisoning” (POITPR2 = 07) “Allergic/adverse reaction to med/other substance” and (POITPR2 = 08) “Something else–NOT poisoning.” In the years 2000–2003, allergic reactions and food poisonings can be removed by the analyst using the field for “cause of poisoning” (POITP=06) “Food poisoning” and (POITP=07) “Allergic reaction.”

Appendix V

Injury-related Publications Using NHIS Data 1997–present

- Zhang, X., et al., Work-related Non-fatal Injuries Among Foreign-born and US-born Workers: Findings From the U.S. National Health Interview Survey, 1997–2005. *American Journal of Industrial Medicine*, 2009. 52(1): p. 25–36.
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- Smith, G.S., et al., Blurring the Distinctions Between On and Off the Job Injuries: Similarities and Differences in Circumstances. *Injury Prevention*, 2006. 12(4): p. 236–41.
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- Hackman, A.L., et al., Use of Emergency Department Services for Somatic Reasons by People With Serious Mental Illness. *Psychiatric Services*, 2006. 57(4): p. 563–6.
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- Xiang, H., et al., Nonfatal Injuries Among US Children With Disabling Conditions. *American Journal of Public Health*, 2005. 95(11): p. 1970–5.
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