

Injuries and External Causes:

Reporting of Causes on the

HCUP State Inpatient Databases (SID),

2016-2019

September 29, 2021

This report is updated as additional Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) become available.

• September 29, 2021

- Information from the 2018-2019 SID from all HCUP Partners (48 States and the District of Columbia in 2019) were added to the report.
- The clinical criteria to identify injuries for all data years was updated to be based on injury and external cause of morbidity categories from the HCUP Clinical Classifications Software Refined (CCSR) for ICD-10-CM, v2022.1, which align with the 2020 ICD-10-CM Injury Diagnosis Framework for Categorizing Injuries by Body Region and Nature of Injury. For data years 2016-2017, this change in the clinical criteria resulted in no more than a 0.1 percent increase in the number of injuries and a slight decrease in the percentage of injury records with external cause on injury codes reported (an average of 0.5 percent across States).
- The identification of injury-related inpatient stays was expanded to look for records with either an injury-related diagnosis or an external cause of morbidity code that specified the mechanism and intent of an injury.

January 17, 2020

 Information from the 2017 SID from 47 States and the District of Columbia were added to the report.

• September 30, 2019

 The first version included information from the 2016 SID from 47 States and the District of Columbia.

HCUP (9/29/2021)

¹ Hedegaard H, Johnson RL, Garnett MF, Thomas KE. The 2020 International Classification of Diseases, 10th Revision, Clinical Modification injury diagnosis framework for categorizing injuries by body region and nature of injury. National Health Statistics Reports; no 150. Hyattsville, MD: National Center for Health Statistics. 2020.

Injuries and External Causes: Reporting of Causes on the HCUP State Inpatient Databases, 2016-2019

Injuries are among the top 15 causes of death for Americans of all ages.² Data on injuries are essential to evaluate the effectiveness of existing policies and programs, as well as to determine the need for new prevention programs. Hospital discharge data can be used to identify significant injuries that are priority targets for prevention. External cause of injury codes are an essential component of injury surveillance efforts because they describe the cause of injury.

This report provides information on the reporting of injury-related diagnoses and external cause of morbidity codes in the Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) from participating HCUP Partners for 2016–2019. Injuries are defined based on injury and external cause of morbidity categories from the HCUP Clinical Classifications Software Refined (CCSR) for ICD-10-CM, v2022.1, which align with the 2020 ICD-10-CM Injury Diagnosis Framework for Categorizing Injuries by Body Region and Nature of Injury.³ Injury-related inpatient stays are identified by any one of the following three criteria:

- 1. An injury-related diagnosis listed as the principal diagnosis
- 2. An injury-related diagnosis listed only as a secondary diagnosis
- 3. Only an external cause of morbidity code that specified the mechanism and intent of an injury (and no injury-related diagnosis).

The *principal diagnosis* is that condition established after study to be chiefly responsible for the patient's admission to the hospital. *Secondary diagnoses* are concomitant conditions that coexist at the time of admission or develop during the stay.

Five sets of figures are provided in this report:

- Figures <u>1a</u>-1d show by State the number of inpatient stays with an injury reported by the three possible criteria for identifying an injury.
- Figures <u>2a-2d</u> show by State the percentage of injury-related inpatient stays by the three possible criteria for identifying an injury.
- Figures <u>3a</u>-3d show by State the percentage of inpatient stays that have both an injury diagnosis listed as a principal diagnosis and an external cause of injury code.
- Figures <u>4a</u>-4d show by State the percentage of inpatient stays that have both an injury diagnosis listed only as a secondary diagnosis and an external cause of injury code.
- Figures <u>5a-5d</u> show by State the percentage of inpatient stays that have both an injury diagnosis listed in any position and an external cause of injury code.

The HCUP Partner organizations are listed in Appendix A. Background on the SID is provided in Appendix B. The ICD-10-CM coding criteria is provided In Appendix C. The underlying data tables are provided in Appendix D.

² Injury and Violence Prevention Overview, Healthy People 2020, http://www.healthypeople.gov/2020/topics-objectives/topic/injury-and-violence-prevention (Accessed 9/14/2021)

³ Hedegaard H, Johnson RL, Garnett MF, Thomas KE. The 2020 International Classification of Diseases, 10th Revision, Clinical Modification injury diagnosis framework for categorizing injuries by body region and nature of injury. National Health Statistics Reports; no 150. Hyattsville, MD: National Center for Health Statistics. 2020.

Figure 1a. Number of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2016

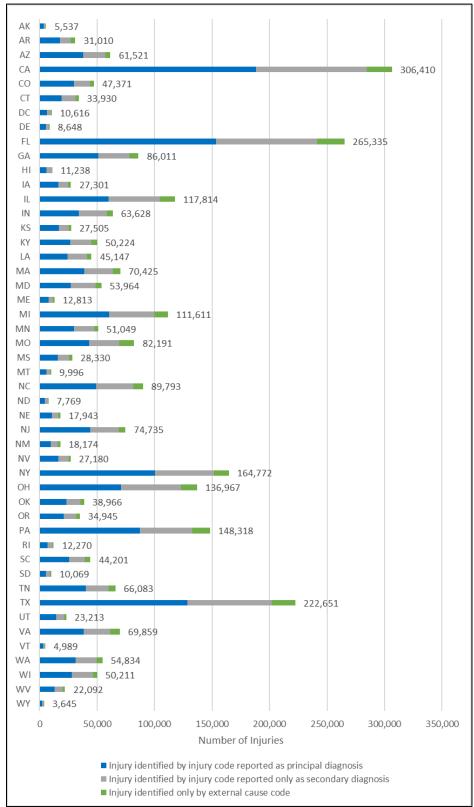


Figure 1b. Number of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2017

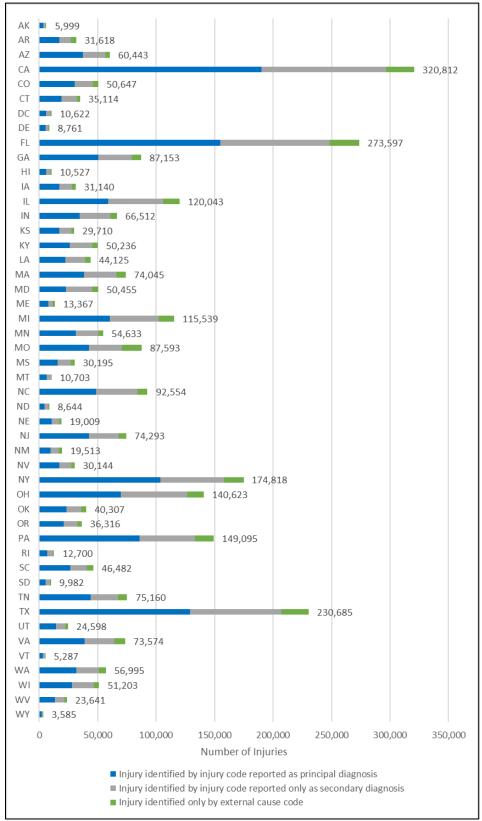


Figure 1c. Number of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2018

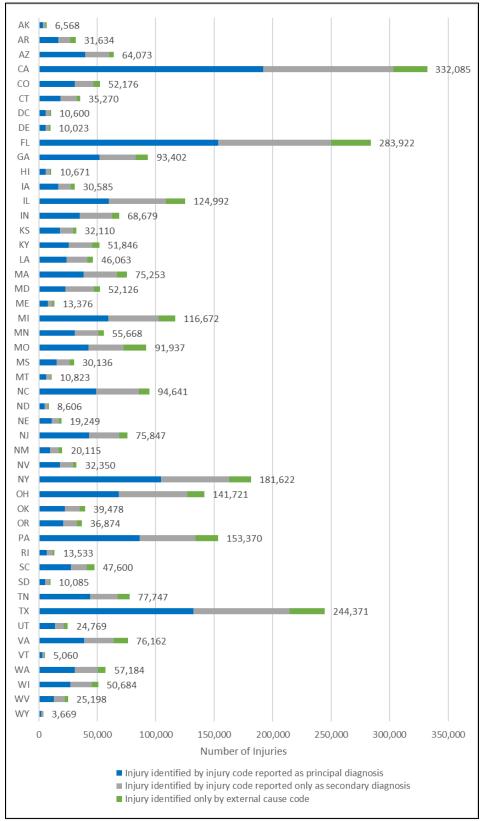


Figure 1d. Number of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2019

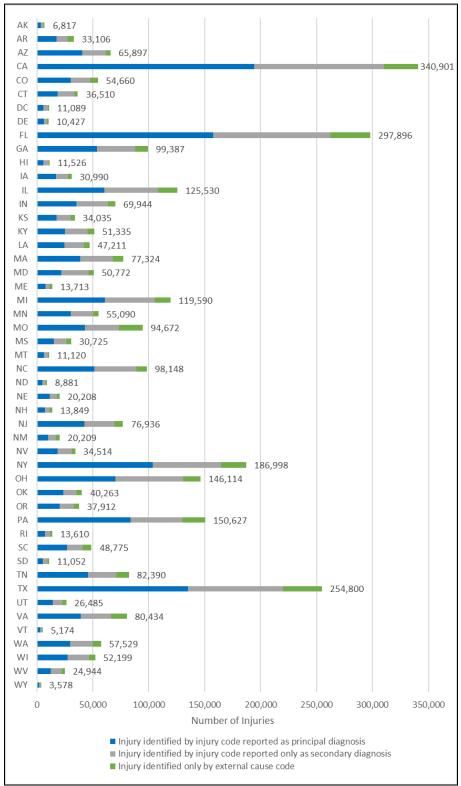


Figure 2a. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2016

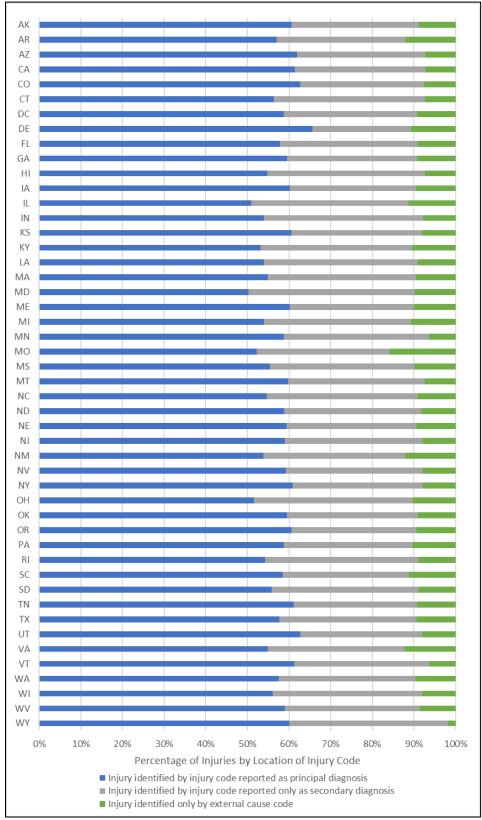


Figure 2b. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2017

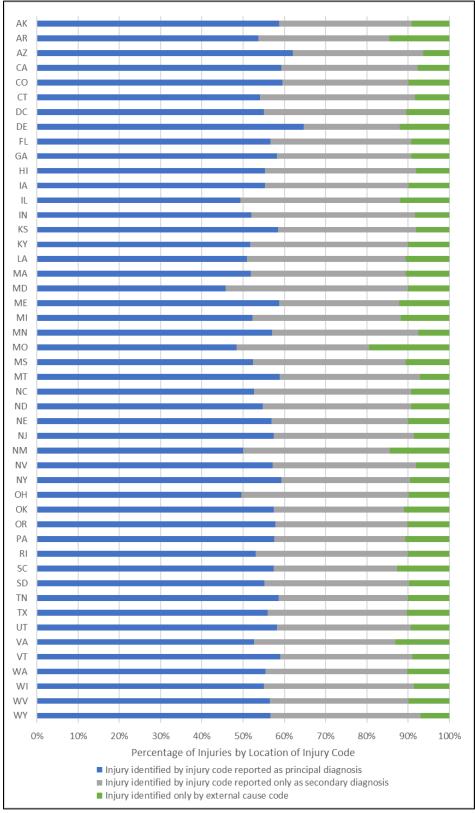


Figure 2c. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2018

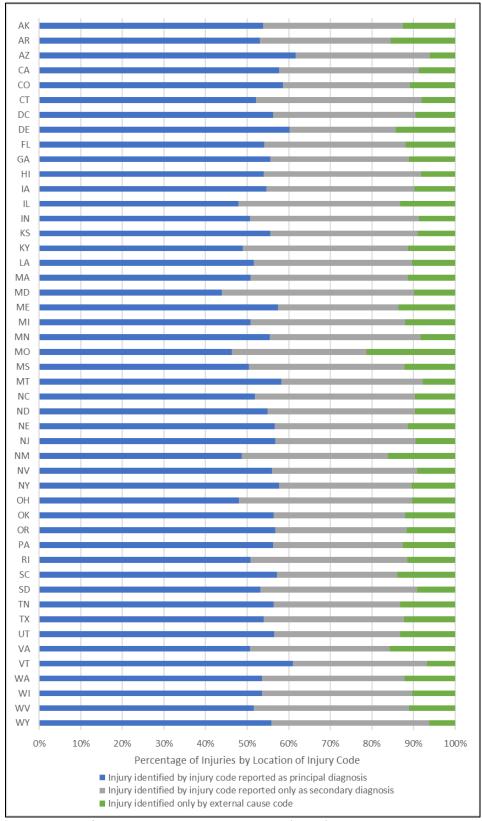


Figure 2d. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2019

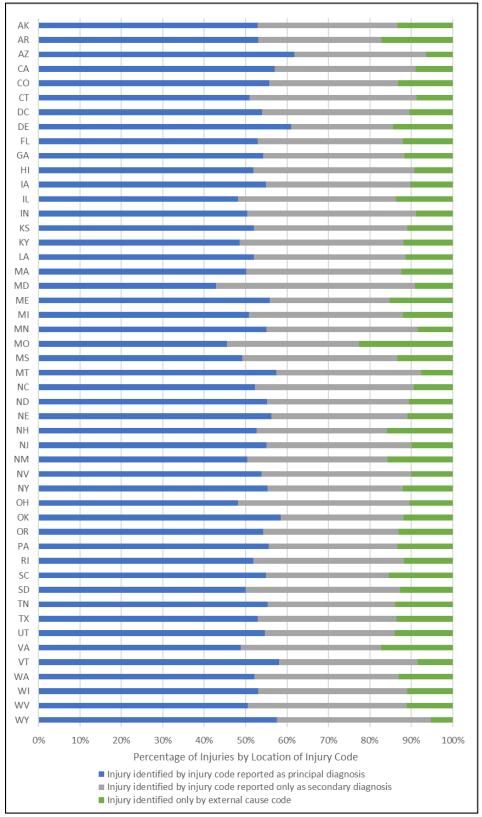


Figure 3a. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis That Also Have an External Cause of Injury Code, By State, 2016

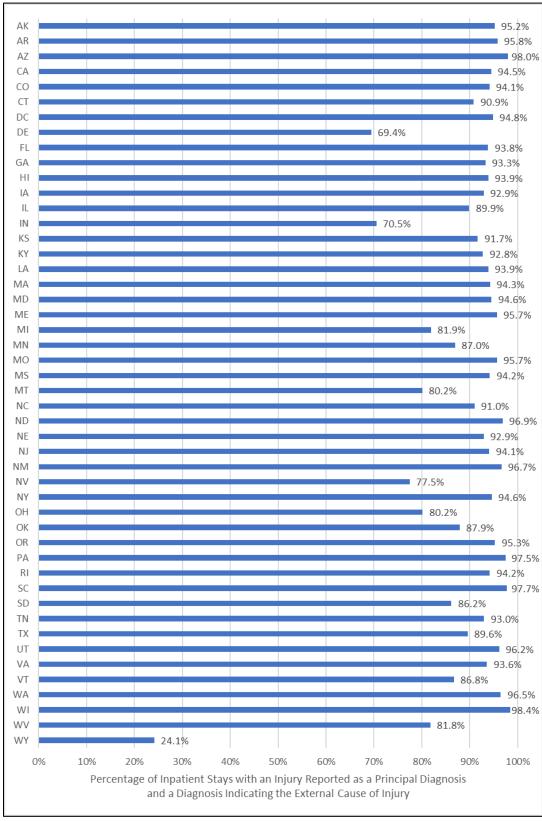


Figure 3b. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis That Also Have an External Cause of Injury Code, By State, 2017

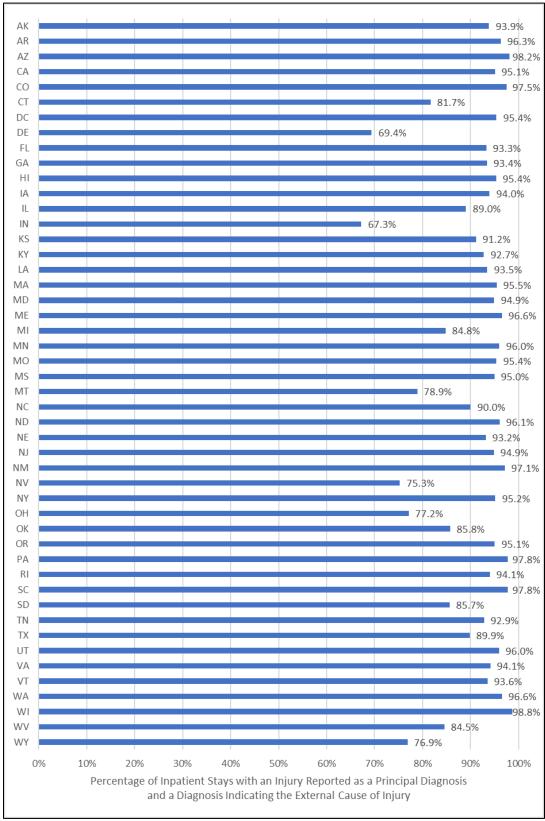


Figure 3c. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis That Also Have an External Cause of Injury Code, By State, 2018

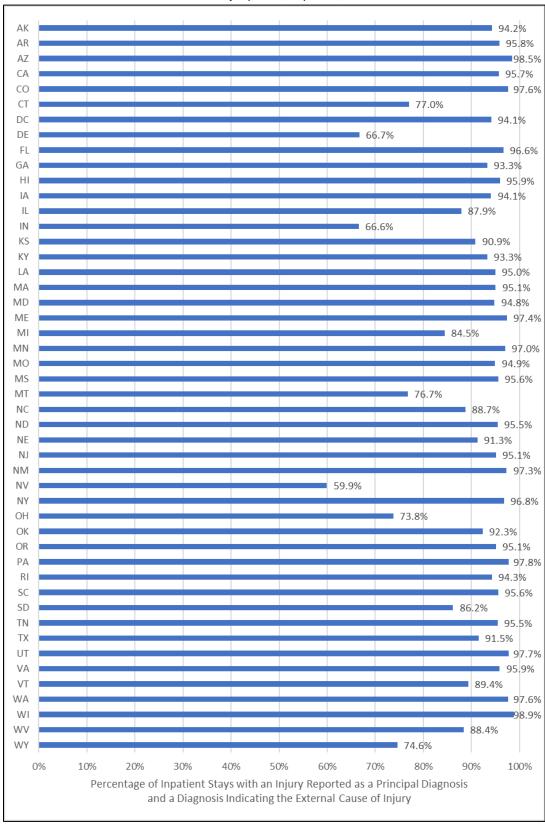


Figure 3d. Percentage of Injury-Related Inpatient Stays with the Injury Reported as a Principal Diagnosis That Also Have an External Cause of Injury Code, By State, 2019

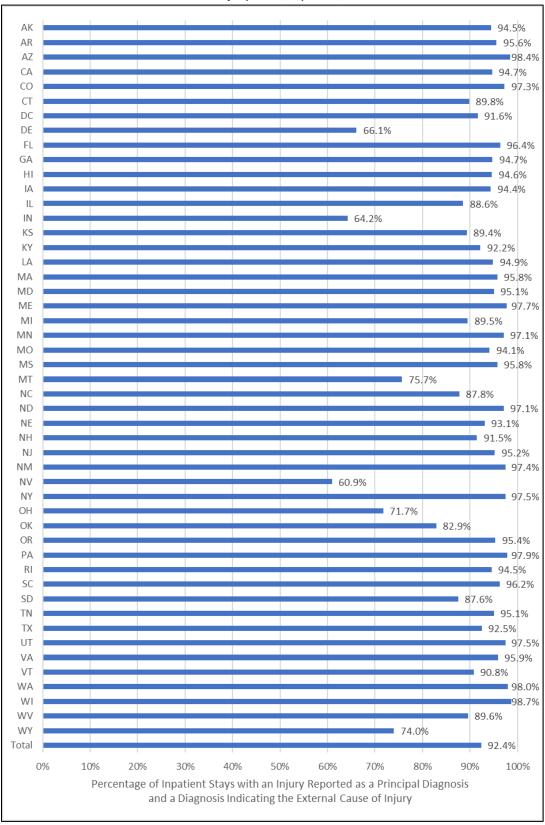


Figure 4a. Percentage of Injury-Related Inpatient Stays with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2016

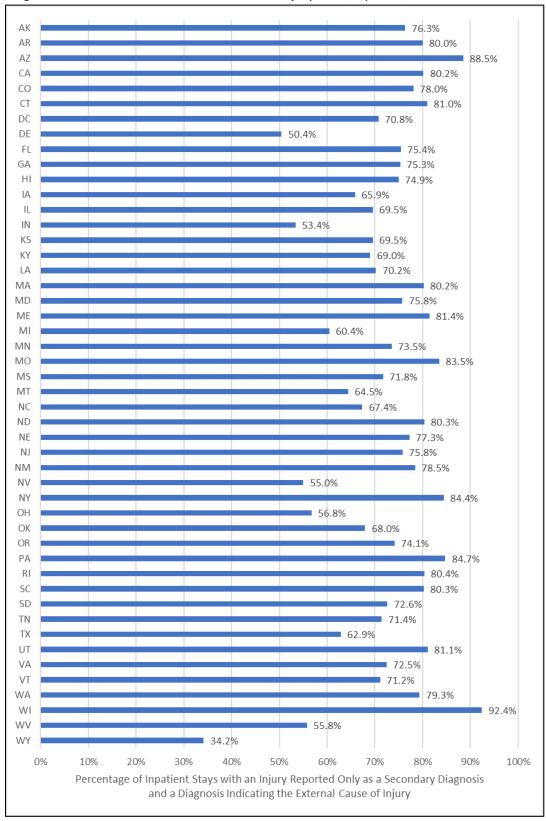


Figure 4b. Percentage of Injury-Related Inpatient Stays with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2017

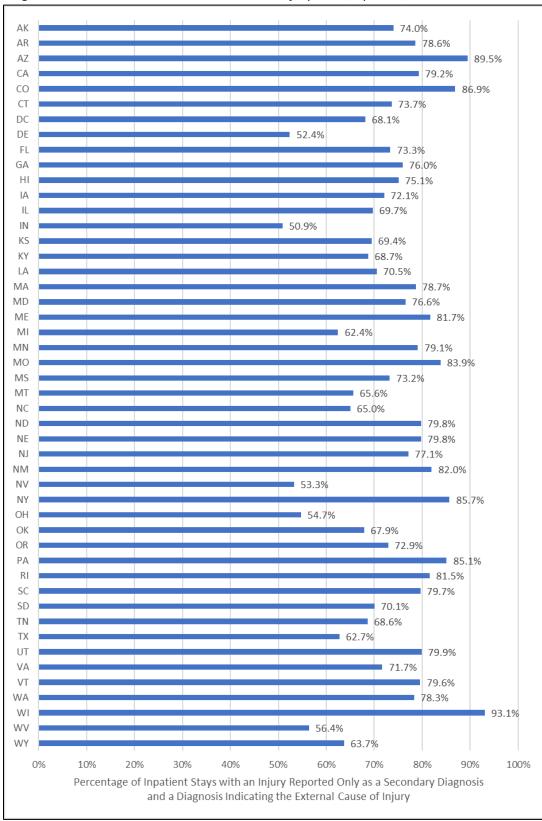


Figure 4c. Percentage of Injury-Related Inpatient Stays with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2018

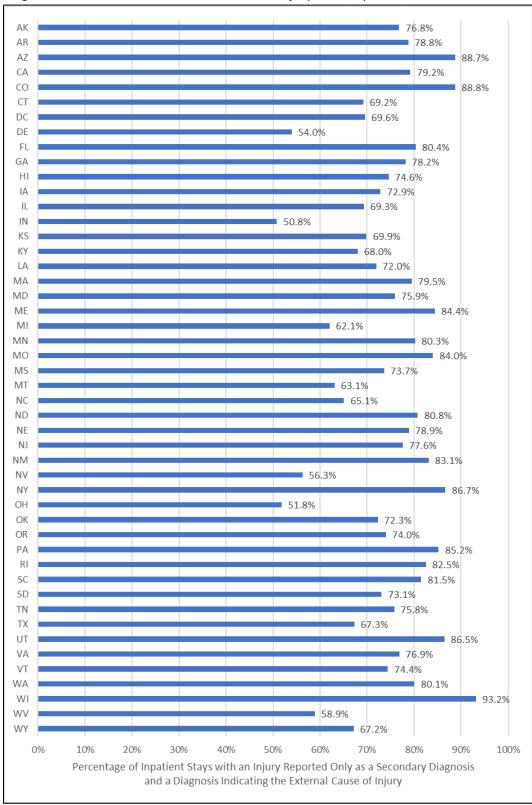


Figure 4d. Percentage of Injury-Related Inpatient Stays with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2019

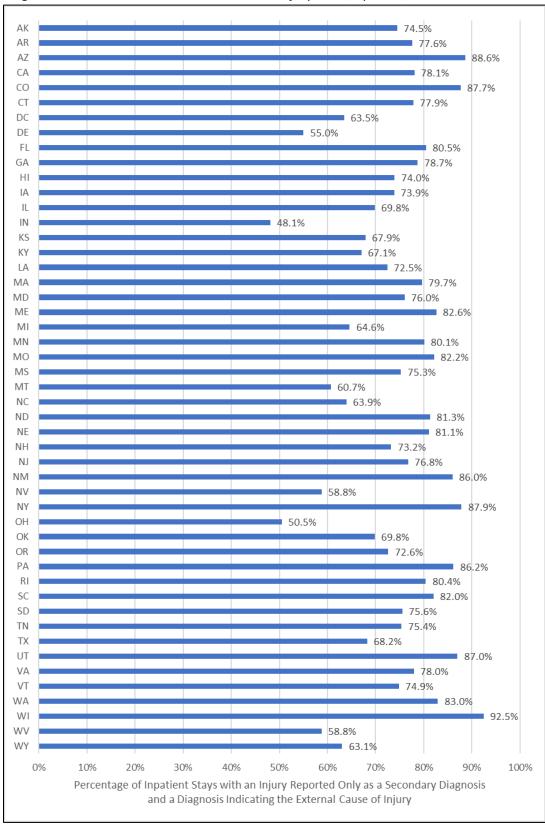


Figure 5a. Percentage of Injury-Related Inpatient Stays with the Injury Reported as Any Diagnosis That Also Have an External Cause of Injury Code, By State, 2016

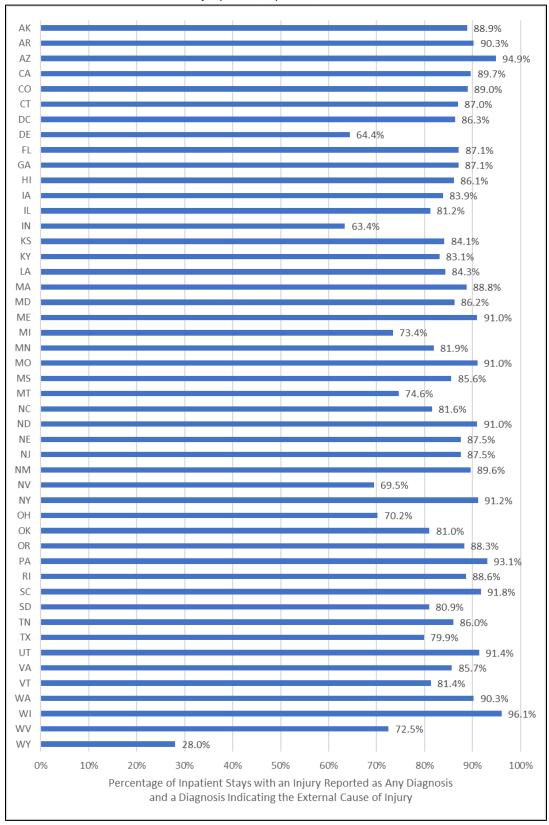


Figure 5b. Percentage of Injury-Related Inpatient Stays with the Injury Reported as Any Diagnosis That Also Have an External Cause of Injury Code, By State, 2017

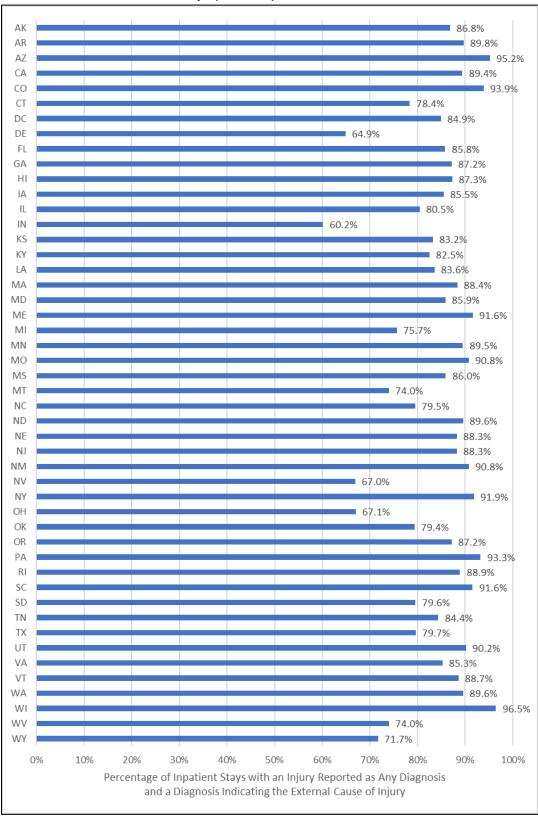


Figure 5c. Percentage of Injury-Related Inpatient Stays with the Injury Reported as Any Diagnosis That Also Have an External Cause of Injury Code, By State, 2018

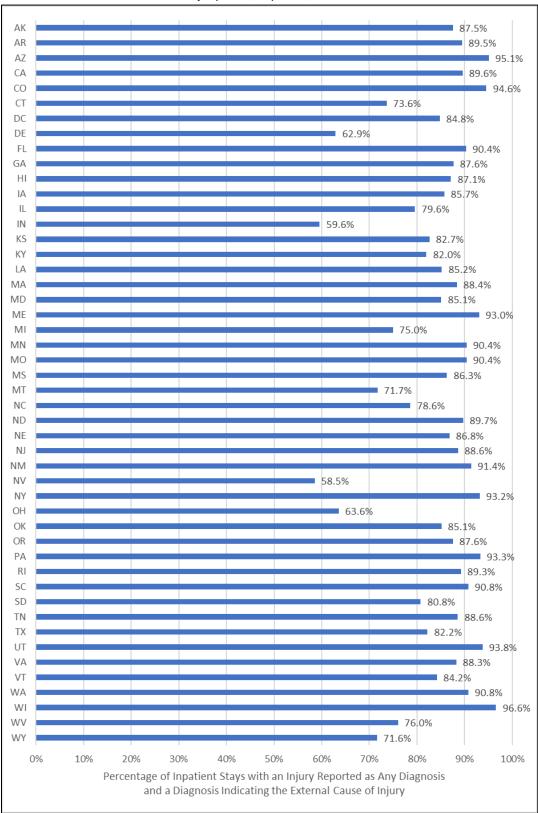
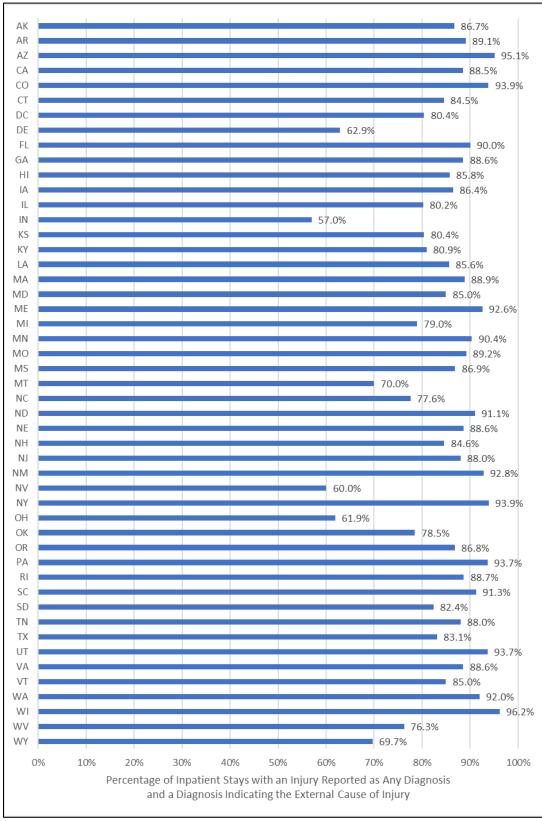


Figure 5d. Percentage of Injury-Related Inpatient Stays with the Injury Reported as Any Diagnosis That Also Have an External Cause of Injury Code, By State, 2019



Appendix A. HCUP Partner Organizations

Alaska Department of Health and Social Services

Alaska State Hospital and Nursing Home Association

Arizona Department of Health Services

Arkansas Department of Health

California Office of Statewide Health Planning and Development

Colorado Hospital Association

Connecticut Hospital Association

Delaware Division of Public Health

District of Columbia Hospital Association

Florida Agency for Health Care Administration

Georgia Hospital Association

Hawaii Health Information Corporation

Hawaii Laulima Data Alliance

Illinois Department of Public Health

Indiana Hospital Association

Iowa Hospital Association

Kansas Hospital Association

Kentucky Cabinet for Health and Family Services

Louisiana Department of Health

Maine Health Data Organization

Maryland Health Services Cost Review Commission

Massachusetts Center for Health Information and Analysis

Michigan Health & Hospital Association

Minnesota Hospital Association (provides data for Minnesota and North Dakota)

Mississippi State Department of Health

Missouri Hospital Industry Data Institute

Montana Hospital Association

Nebraska Hospital Association

Nevada Department of Health and Human Services

New Hampshire Department of Health & Human Services

New Jersey Department of Health

New Mexico Department of Health

New York State Department of Health

North Carolina Department of Health and Human Services

North Dakota (data provided by the Minnesota Hospital Association)

Ohio Hospital Association

Oklahoma State Department of Health

Oregon Association of Hospitals and Health Systems

Oregon Office of Health Analytics

Pennsylvania Health Care Cost Containment Council

Rhode Island Department of Health

South Carolina Revenue and Fiscal Affairs Office

South Dakota Association of Healthcare Organizations

Tennessee Hospital Association

Texas Department of State Health Services

Utah Department of Health

Vermont Association of Hospitals and Health Systems

Virginia Health Information

Washington State Department of Health

West Virginia Department of Health and Human Resources, West Virginia Health Care Authority

Wisconsin Department of Health Services

Wyoming Hospital Association

Appendix B. Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID)

The Healthcare Cost and Utilization Project (HCUP) is a family of healthcare databases and related software tools and products developed through a Federal-State-Industry partnership and sponsored by the Agency for Healthcare Research and Quality (AHRQ). HCUP databases bring together the data collection efforts of State data organizations, hospital associations, private data organizations, and the Federal government to create a national information resource of encounter-level health care data. HCUP includes the largest collection of longitudinal hospital care data in the United States, with all-payer, encounter-level information beginning in 1988. These databases enable research on a broad range of health policy issues, including cost and quality of health services, medical practice patterns, access to health care programs, and outcomes of treatments at the national, State, and local market levels.

The HCUP State Inpatient Databases (SID) contain the universe of the inpatient discharge abstracts from participating States that are translated into a uniform format to facilitate multistate comparisons and analyses. Together, the SID encompass over 95 percent of all U.S. hospital discharges.

The SID contain clinical and resource-use information that is included in a typical discharge abstract, with safeguards to protect the privacy of individual patients, physicians, and hospitals. The SID contain more than 100 clinical and nonclinical variables, such as:

- Principal and secondary diagnoses and procedures
- Admission and discharge status
- Patient demographics characteristics (e.g., sex, age, and, for some States, race/ethnicity)
- Expected payment source
- Total charges
- Length of stay.

Appendix C. ICD-10-CM Coding Criteria for Injuries

Injuries were identified using the following <u>Clinical Classifications Software (CCSR)</u> for ICD-10-CM diagnoses categories. Additional information on the CCSR is available on the HCUP User Support website (<u>www.hcup-us.ahrq.gov</u>).

Injury-Related	
CCSR Categories	CCSR Category Description
INJ001	Fracture of head and neck, initial encounter
INJ002	Fracture of the spine and back, initial encounter
INJ003	Fracture of torso, initial encounter
INJ004	Fracture of the upper limb, initial encounter
INJ005	Fracture of the lower limb (except hip), initial encounter
INJ006	Fracture of the neck of the femur (hip), initial encounter
INJ007	Dislocations, initial encounter
INJ008	Traumatic brain injury (TBI); concussion, initial encounter
INJ009	Spinal cord injury (SCI), initial encounter
INJ010	Internal organ injury, initial encounter
INJ011	Open wounds of head and neck, initial encounter
INJ012	Open wounds to limbs, initial encounter
INJ013	Open wounds of trunk, initial encounter
INJ014	Amputation of a limb, initial encounter
INJ015	Amputation of other body parts, initial encounter
INJ016	Injury to blood vessels, initial encounter
INJ017	Superficial injury; contusion, initial encounter
INJ018	Crushing injury, initial encounter
INJ019	Burn and corrosion, initial encounter
INJ020	Effect of foreign body entering opening, initial encounter
INJ021	Effect of other external causes, initial encounter
INJ022	Poisoning by drugs, initial encounter
INJ023	Toxic effects, initial encounter
INJ024	Sprains and strains, initial encounter
INJ025	Injury to nerves, muscles and tendons, initial encounter
INJ026	Other specified injury
INJ027	Other unspecified injury
INJ032	Maltreatment/abuse

Injury-Related External Cause	
CCSR Categories	CCSR Category Description
EXT001	External cause codes: cut/pierce; initial encounter
EXT002	External cause codes: drowning/submersion; initial encounter
EXT003	External cause codes: fall; initial encounter
EXT004	External cause codes: fire/burn; initial encounter
EXT005	External cause codes: firearm; initial encounter
EXT006	External cause codes: machinery; initial encounter
EXT007	External cause codes: motor vehicle traffic (MVT); initial encounter
EXT008	External cause codes: pedal cyclist; not MVT; initial encounter

Injury-Related	
External Cause	
CCSR Categories	CCSR Category Description
EXT009	External cause codes: pedestrian; not MVT; initial encounter
EXT010	External cause codes: transport; not MVT; initial encounter
EXT011	External cause codes: natural/environment; initial encounter
EXT012	External cause codes: bites; initial encounter
EXT013	External cause codes: overexertion; initial encounter
EXT014	External cause codes: poisoning by drug
EXT015	External cause codes: poisoning by non-drug
EXT016	External cause codes: struck by; against; initial encounter
EXT017	External cause codes: suffocation/inhalation; initial encounter
EXT018	External cause codes: other specified, classifiable and NEC; initial encounter
EXT019	External cause codes: unspecified mechanism

Appendix D. Data Tables

Table D.1a. Number and Percentage of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2016

	isis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Co						2010
	injury code principal	entified by reported as diagnosis	Injury identified by injury code reported only as secondary diagnosis		Injury identife external cau code (no diagnosis reco	se of injury o injury code on rd)	Any injury
	Number	Percent of	Number of	Percent of	Number of	Percent of	Number of
State	of records	State Total	records	State	records	State	records
AK	3,355	60.6	1,695	Total 30.6	487	Total 8.8	5,537
AR	17,675	57.0	9,613	31.0	3,722	12.0	31,010
		61.9		30.8		7.2	61,521
AZ	38,089		18,977		4,455		
CA	187,966	61.3	96,305	31.4	22,139	7.2	306,410
CO	29,706	62.7	14,100	29.8	3,565	7.5	47,371
CT	19,143	56.4	12,285	36.2	2,502	7.4	33,930
DC	6,232	58.7	3,412	32.1	972	9.2	10,616
DE	5,680	65.7	2,050	23.7	918	10.6	8,648
FL	153,552	57.9	87,674	33.0	24,109	9.1	265,335
GA	51,160	59.5	26,889	31.3	7,962	9.3	86,011
HI	6,156	54.8	4,261	37.9	821	7.3	11,238
IA	16,430	60.2	8,275	30.3	2,596	9.5	27,301
IL	59,950	50.9	44,479	37.8	13,385	11.4	117,814
IN	34,341	54.0	24,378	38.3	4,909	7.7	63,628
KS	16,659	60.6	8,638	31.4	2,208	8.0	27,505
KY	26,728	53.2	18,279	36.4	5,217	10.4	50,224
LA	24,349	53.9	16,680	36.9	4,118	9.1	45,147
MA	38,639	54.9	25,108	35.7	6,678	9.5	70,425
MD	27,115	50.2	21,587	40.0	5,262	9.8	53,964
ME	7,714	60.2	3,822	29.8	1,277	10.0	12,813
MI	60,195	53.9	39,471	35.4	11,945	10.7	111,611
MN	29,999	58.8	17,858	35.0	3,192	6.3	51,049
MO	42,900	52.2	26,304	32.0	12,987	15.8	82,191
MS	15,684	55.4	9,848	34.8	2,798	9.9	28,330
MT	5,980	59.8	3,275	32.8	741	7.4	9,996
NC	49,048	54.6	32,545	36.2	8,200	9.1	89,793
ND	4,578	58.9	2,558	32.9	633	8.1	7,769
NE	10,654	59.4	5,621	31.3	1,668	9.3	17,943
NJ	44,122	59.0	24,675	33.0	5,938	7.9	74,735
NM	9,791	53.9	6,182	34.0	2,201	12.1	18,174
NV	16,110	59.3	8,931	32.9	2,139	7.9	27,180
NY	100,210	60.8	51,501	31.3	13,061	7.9	164,772
ОН	70,689	51.6	52,242	38.1	14,036	10.2	136,967

	Injury identified by injury code reported as principal diagnosis		jury code reported as code reported only as		Injury identified only by external cause of injury code (no injury diagnosis code on record)		Any injury
	Number	Percent of	Number of	Percent of	Number of	Percent of	Number of
Ctata	of records	State Total	records	State	records	State	records
State				Total		Total	
OK	23,180	59.5	12,255	31.5	3,531	9.1	38,966
OR	21,170	60.6	10,488	30.0	3,287	9.4	34,945
PA	87,029	58.7	45,948	31.0	15,341	10.3	148,318
RI	6,655	54.2	4,511	36.8	1,104	9.0	12,270
SC	25,820	58.4	13,431	30.4	4,950	11.2	44,201
SD	5,627	55.9	3,549	35.2	893	8.9	10,069
TN	40,421	61.2	19,530	29.6	6,132	9.3	66,083
TX	128,542	57.7	73,399	33.0	20,710	9.3	222,651
UT	14,551	62.7	6,812	29.3	1,850	8.0	23,213
VA	38,344	54.9	22,942	32.8	8,573	12.3	69,859
VT	3,057	61.3	1,619	32.5	313	6.3	4,989
WA	31,532	57.5	18,014	32.9	5,288	9.6	54,834
WI	28,166	56.1	18,033	35.9	4,012	8.0	50,211
WV	13,026	59.0	7,186	32.5	1,880	8.5	22,092
WY	2,187	60.0	1,390	38.1	68	1.9	3,645

Table D.1b. Number and Percentage of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2017

	Injury idei injury code as principa	reported I diagnosis	Injury identified by injury code reported only as secondary diagnosis		Injury identification external cau code (no diagnosis reco	se of injury injury code on rd)	Any injury
State	Number of records	Percent of State Total	Number of records	Percent of State Total	Number of records	Percent of State Total	Number of records
AK	3,522	58.7	1,928	32.1	549	9.2	5,999
AR	17,000	53.8	10,038	31.7	4,580	14.5	31,618
AZ	37,466	62.0	19,194	31.8	3,783	6.3	60,443
CA	190,045	59.2	106,433	33.2	24,334	7.6	320,812
СО	30,171	59.6	15,504	30.6	4,972	9.8	50,647
СТ	18,989	54.1	13,227	37.7	2,898	8.3	35,114
DC	5,846	55.0	3,665	34.5	1,111	10.5	10,622
DE	5,668	64.7	2,046	23.4	1,047	12.0	8,761
FL	154,982	56.6	93,232	34.1	25,383	9.3	273,597
GA	50,675	58.1	28,391	32.6	8,087	9.3	87,153
HI	5,821	55.3	3,857	36.6	849	8.1	10,527
IA	17,209	55.3	10,870	34.9	3,061	9.8	31,140
IL	59,148	49.3	46,725	38.9	14,170	11.8	120,043
IN	34,574	52.0	26,379	39.7	5,559	8.4	66,512
KS	17,358	58.4	9,957	33.5	2,395	8.1	29,710
KY	25,986	51.7	19,245	38.3	5,005	10.0	50,236
LA	22,450	50.9	17,006	38.5	4,669	10.6	44,125
MA	38,356	51.8	27,887	37.7	7,802	10.5	74,045
MD	23,064	45.7	22,354	44.3	5,037	10.0	50,455
ME	7,848	58.7	3,904	29.2	1,615	12.1	13,367
MI	60,353	52.2	41,648	36.0	13,538	11.7	115,539
MN	31,182	57.1	19,345	35.4	4,106	7.5	54,633
МО	42,451	48.5	28,094	32.1	17,048	19.5	87,593
MS	15,802	52.3	11,197	37.1	3,196	10.6	30,195
MT	6,297	58.8	3,641	34.0	765	7.1	10,703
NC	48,741	52.7	35,321	38.2	8,492	9.2	92,554
ND	4,737	54.8	3,109	36.0	798	9.2	8,644
NE	10,802	56.8	6,314	33.2	1,893	10.0	19,009
NJ	42,637	57.4	25,301	34.1	6,355	8.6	74,293
NM	9,758	50.0	6,947	35.6	2,808	14.4	19,513
NV	17,238	57.2	10,480	34.8	2,426	8.0	30,144
NY	103,504	59.2	54,818	31.4	16,496	9.4	174,818
ОН	69,760	49.6	56,942	40.5	13,921	9.9	140,623
OK	23,139	57.4	12,767	31.7	4,401	10.9	40,307
OR	20,991	57.8	11,623	32.0	3,702	10.2	36,316

	Injury identified by injury code reported as principal diagnosis		injury code reported code reported only as		Injury identified only by external cause of injury code (no injury diagnosis code on record)		Any injury
	Number of records	Percent of State	Number of records	Percent of State	Number of records	Percent of State	Number of records
State	or records	Total	records	Total	records	Total	records
PA	85,847	57.6	47,233	31.7	16,015	10.7	149,095
RI	6,733	53.0	4,691	36.9	1,276	10.0	12,700
SC	26,691	57.4	13,927	30.0	5,864	12.6	46,482
SD	5,507	55.2	3,503	35.1	972	9.7	9,982
TN	44,058	58.6	23,618	31.4	7,484	10.0	75,160
TX	129,115	56.0	77,781	33.7	23,789	10.3	230,685
UT	14,334	58.3	7,972	32.4	2,292	9.3	24,598
VA	38,768	52.7	25,197	34.2	9,609	13.1	73,574
VT	3,122	59.1	1,690	32.0	475	9.0	5,287
WA	31,592	55.4	19,586	34.4	5,817	10.2	56,995
WI	28,210	55.1	18,622	36.4	4,371	8.5	51,203
WV	13,365	56.5	7,939	33.6	2,337	9.9	23,641
WY	2,030	56.6	1,304	36.4	251	7.0	3,585

Table D.1c. Number and Percentage of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2018

	Injury idei injury code as principa	reported I diagnosis	Injury identified by injury code reported only as secondary diagnosis		Injury identif external cau code (no diagnosis reco	se of injury injury code on rd)	Any injury
State	Number of records	Percent of State Total	Number of records	Percent of State Total	Number of records	Percent of State Total	Number of records
AK	3,536	53.8	2,210	33.6	822	12.5	6,568
AR	16,792	53.1	9,946	31.4	4,896	15.5	31,634
AZ	39,501	61.6	20,673	32.3	3,899	6.1	64,073
CA	191,736	57.7	111,529	33.6	28,820	8.7	332,085
СО	30,563	58.6	15,984	30.6	5,629	10.8	52,176
СТ	18,398	52.2	14,040	39.8	2,832	8.0	35,270
DC	5,956	56.2	3,642	34.4	1,002	9.5	10,600
DE	6,037	60.2	2,554	25.5	1,432	14.3	10,023
FL	153,534	54.1	96,769	34.1	33,619	11.8	283,922
GA	51,862	55.5	31,196	33.4	10,344	11.1	93,402
HI	5,755	53.9	4,048	37.9	868	8.1	10,671
IA	16,723	54.7	10,871	35.5	2,991	9.8	30,585
IL	59,889	47.9	48,606	38.9	16,497	13.2	124,992
IN	34,830	50.7	27,844	40.5	6,005	8.7	68,679
KS	17,825	55.5	11,402	35.5	2,883	9.0	32,110
KY	25,380	49.0	20,583	39.7	5,883	11.3	51,846
LA	23,773	51.6	17,533	38.1	4,757	10.3	46,063
MA	38,208	50.8	28,528	37.9	8,517	11.3	75,253
MD	22,860	43.9	24,114	46.3	5,152	9.9	52,126
ME	7,681	57.4	3,880	29.0	1,815	13.6	13,376
MI	59,257	50.8	43,438	37.2	13,977	12.0	116,672
MN	30,867	55.4	20,149	36.2	4,652	8.4	55,668
MO	42,588	46.3	29,807	32.4	19,542	21.3	91,937
MS	15,195	50.4	11,269	37.4	3,672	12.2	30,136
MT	6,301	58.2	3,676	34.0	846	7.8	10,823
NC	49,076	51.9	36,488	38.6	9,077	9.6	94,641
ND	4,723	54.9	3,051	35.5	832	9.7	8,606
NE	10,889	56.6	6,182	32.1	2,178	11.3	19,249
NJ	43,064	56.8	25,606	33.8	7,177	9.5	75,847
NM	9,786	48.7	7,097	35.3	3,232	16.1	20,115
NV	18,083	55.9	11,319	35.0	2,948	9.1	32,350
NY	104,671	57.6	58,099	32.0	18,852	10.4	181,622
ОН	68,069	48.0	59,025	41.6	14,627	10.3	141,721
OK	22,267	56.4	12,485	31.6	4,726	12.0	39,478
OR	20,942	56.8	11,673	31.7	4,259	11.6	36,874

	Injury identified by injury code reported as principal diagnosis		injury code reported code reported only as		Injury identified only by external cause of injury code (no injury diagnosis code on record)		Any injury
	Number of records	Percent of State	Number of records	Percent of	Number of	Percent of	Number of
State	orrecords	Total	records	State Total	records	State Total	records
PA	86,163	56.2	48,069	31.3	19,138	12.5	153,370
RI	6,874	50.8	5,115	37.8	1,544	11.4	13,533
SC	27,198	57.1	13,816	29.0	6,586	13.8	47,600
SD	5,367	53.2	3,800	37.7	918	9.1	10,085
TN	43,833	56.4	23,658	30.4	10,256	13.2	77,747
TX	131,965	54.0	82,591	33.8	29,815	12.2	244,371
UT	13,999	56.5	7,512	30.3	3,258	13.2	24,769
VA	38,591	50.7	25,618	33.6	11,953	15.7	76,162
VT	3,088	61.0	1,635	32.3	337	6.7	5,060
WA	30,619	53.5	19,648	34.4	6,917	12.1	57,184
WI	27,156	53.6	18,303	36.1	5,225	10.3	50,684
WV	12,995	51.6	9,424	37.4	2,779	11.0	25,198
WY	2,050	55.9	1,393	38.0	226	6.2	3,669

Table D.1d. Number and Percentage of Inpatient Stays with an Injury Diagnosis Reported as a Principal Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2019

	Injury ider injury code as principal	reported diagnosis	ported code reported only as gnosis secondary diagnosis		Injury identification external cau code (no diagnosis reco	se of injury injury code on rd)	Any injury
	Number of records	Percent of State	Number of records	Percent of State	Number of records	Percent of State	Number of records
State	orrecords	Total	records	Total	recorus	Total	records
AK	3,605	52.9	2,305	33.8	907	13.3	6,817
AR	17,553	53.0	9,865	29.8	5,688	17.2	33,106
AZ	40,705	61.8	20,945	31.8	4,247	6.4	65,897
CA	194,276	57.0	115,933	34.0	30,692	9.0	340,901
СО	30,468	55.7	17,005	31.1	7,187	13.1	54,660
СТ	18,576	50.9	14,741	40.4	3,193	8.7	36,510
DC	5,989	54.0	3,947	35.6	1,153	10.4	11,089
DE	6,357	61.0	2,565	24.6	1,505	14.4	10,427
FL	157,532	52.9	104,639	35.1	35,725	12.0	297,896
GA	53,945	54.3	33,947	34.2	11,495	11.6	99,387
HI	5,981	51.9	4,479	38.9	1,066	9.2	11,526
IA	17,018	54.9	10,779	34.8	3,193	10.3	30,990
IL	60,429	48.1	47,930	38.2	17,171	13.7	125,530
IN	35,218	50.4	28,571	40.8	6,155	8.8	69,944
KS	17,706	52.0	12,591	37.0	3,738	11.0	34,035
KY	24,932	48.6	20,309	39.6	6,094	11.9	51,335
LA	24,547	52.0	17,302	36.6	5,362	11.4	47,211
MA	38,792	50.2	28,984	37.5	9,548	12.3	77,324
MD	21,724	42.8	24,430	48.1	4,618	9.1	50,772
ME	7,649	55.8	3,978	29.0	2,086	15.2	13,713
MI	60,760	50.8	44,437	37.2	14,393	12.0	119,590
MN	30,342	55.1	20,077	36.4	4,671	8.5	55,090
МО	43,133	45.6	30,180	31.9	21,359	22.6	94,672
MS	15,101	49.1	11,534	37.5	4,090	13.3	30,725
MT	6,382	57.4	3,889	35.0	849	7.6	11,120
NC	51,222	52.2	37,775	38.5	9,151	9.3	98,148
ND	4,894	55.1	3,048	34.3	939	10.6	8,881
NE	11,352	56.2	6,644	32.9	2,212	10.9	20,208
NH	7,288	52.6	4,369	31.5	2,192	15.8	13,849
NJ	42,345	55.0	26,989	35.1	7,602	9.9	76,936
NM	10,191	50.4	6,853	33.9	3,165	15.7	20,209
NV	18,568	53.8	12,473	36.1	3,473	10.1	34,514
NY	103,377	55.3	61,105	32.7	22,516	12.0	186,998
ОН	70,381	48.2	60,562	41.4	15,171	10.4	146,114
OK	23,560	58.5	11,918	29.6	4,785	11.9	40,263

	Injury identified by injury code reported as principal diagnosis		injury code reported code reported only as		Injury identife external cau code (no diagnosis reco	se of injury injury code on	Any injury
	Number	Percent	Number of	Percent of	Number of	Percent of	Number of
	of records	of State	records	State	records	State	records
State		Total		Total		Total	
OR	20,555	54.2	12,420	32.8	4,937	13.0	37,912
PA	83,726	55.6	46,795	31.1	20,106	13.3	150,627
RI	7,064	51.9	4,951	36.4	1,595	11.7	13,610
SC	26,807	55.0	14,416	29.6	7,552	15.5	48,775
SD	5,523	50.0	4,135	37.4	1,394	12.6	11,052
TN	45,539	55.3	25,430	30.9	11,421	13.9	82,390
TX	134,975	53.0	85,104	33.4	34,721	13.6	254,800
UT	14,458	54.6	8,337	31.5	3,690	13.9	26,485
VA	39,244	48.8	27,274	33.9	13,916	17.3	80,434
VT	3,003	58.0	1,735	33.5	436	8.4	5,174
WA	30,008	52.2	20,003	34.8	7,518	13.1	57,529
WI	27,660	53.0	18,802	36.0	5,737	11.0	52,199
WV	12,617	50.6	9,566	38.3	2,761	11.1	24,944
WY	2,057	57.5	1,332	37.2	189	5.3	3,578

Table D.2a. Number of Inpatient Stays with an Injury Diagnosis and the Percentage of Injury-Related Stays with an External Cause of Injury Code, By State, 2016

·	reported in	ys with an injury of the principal gnosis	reported o	tays with an injury nly as a secondary liagnosis	mention	stays with any n of an injury agnosis
	Number of	Percent with an external cause of injury	Number	Percent with an external cause of	Number	Percent with an external cause of injury
State	stays	code	of stays	injury code	of stays	code
AK	3,355	95.2	1,695	76.3	5,050	88.9
AR	17,675	95.8	9,613	80.0	27,288	90.3
AZ	38,089	98.0	18,977	88.5	57,066	94.9
CA	187,966	94.5	96,305	80.2	284,271	89.7
СО	29,706	94.1	14,100	78.0	43,806	89.0
СТ	19,143	90.9	12,285	81.0	31,428	87.0
DC	6,232	94.8	3,412	70.8	9,644	86.3
DE	5,680	69.4	2,050	50.4	7,730	64.4
FL	153,552	93.8	87,674	75.4	241,226	87.1
GA	51,160	93.3	26,889	75.3	78,049	87.1
HI	6,156	93.9	4,261	74.9	10,417	86.1
IA	16,430	92.9	8,275	65.9	24,705	83.9
IL	59,950	89.9	44,479	69.5	104,429	81.2
IN	34,341	70.5	24,378	53.4	58,719	63.4
KS	16,659	91.7	8,638	69.5	25,297	84.1
KY	26,728	92.8	18,279	69.0	45,007	83.1
LA	24,349	93.9	16,680	70.2	41,029	84.3
MA	38,639	94.3	25,108	80.2	63,747	88.8
MD	27,115	94.6	21,587	75.8	48,702	86.2
ME	7,714	95.7	3,822	81.4	11,536	91.0
MI	60,195	81.9	39,471	60.4	99,666	73.4
MN	29,999	87.0	17,858	73.5	47,857	81.9
МО	42,900	95.7	26,304	83.5	69,204	91.0
MS	15,684	94.2	9,848	71.8	25,532	85.6
MT	5,980	80.2	3,275	64.5	9,255	74.6
NC	49,048	91.0	32,545	67.4	81,593	81.6
ND	4,578	96.9	2,558	80.3	7,136	91.0
NE	10,654	92.9	5,621	77.3	16,275	87.5
NJ	44,122	94.1	24,675	75.8	68,797	87.5
NM	9,791	96.7	6,182	78.5	15,973	89.6
NV	16,110	77.5	8,931	55.0	25,041	69.5
NY	100,210	94.6	51,501	84.4	151,711	91.2
ОН	70,689	80.2	52,242	56.8	122,931	70.2
OK	23,180	87.9	12,255	68.0	35,435	81.0
OR	21,170	95.3	10,488	74.1	31,658	88.3

	Inpatient stays with an injury reported in the principal diagnosis		reported o	tays with an injury nly as a secondary iagnosis	Inpatient stays with any mention of an injury diagnosis	
		Percent with				Percent with
		an external		Percent with an		an external
	Number of	cause of injury	Number	external cause of	Number	cause of injury
State	stays	code	of stays	injury code	of stays	code
PA	87,029	97.5	45,948	84.7	132,977	93.1
RI	6,655	94.2	4,511	80.4	11,166	88.6
SC	25,820	97.7	13,431	80.3	39,251	91.8
SD	5,627	86.2	3,549	72.6	9,176	80.9
TN	40,421	93.0	19,530	71.4	59,951	86.0
TX	128,542	89.6	73,399	62.9	201,941	79.9
UT	14,551	96.2	6,812	81.1	21,363	91.4
VA	38,344	93.6	22,942	72.5	61,286	85.7
VT	3,057	86.8	1,619	71.2	4,676	81.4
WA	31,532	96.5	18,014	79.3	49,546	90.3
WI	28,166	98.4	18,033	92.4	46,199	96.1
WV	13,026	81.8	7,186	55.8	20,212	72.5
WY	2,187	24.1	1,390	34.2	3,577	28.0

Table D.2b. Number of Inpatient Stays with an Injury Diagnosis and the Percentage of Injury-Related Stays with an External Cause of Injury Code, By State, 2017

		ys with an injury	Inpatient stays with an injury		Inpatient	stays with any
	reported in the principal		reported only as a secondary		mention of an injury	
	dia	gnosis	diagnosis		diagnosis	
		Percent with				Percent with
		an external		Percent with an		an external
State	Number of	cause of injury	Number	external cause of	Number	cause of injury code
AK	stays 3,522	code 93.9	of stays 1,928	injury code 74.0	of stays 5,450	86.8
AR	17,000	96.3	10,038	74.0	27,038	89.8
AZ	37,466	98.2	19,194	89.5	56,660	95.2
CA	190,045	95.1	106,433	79.2	296,478	89.4
CO	30,171	97.5	15,504	86.9	45,675	93.9
CT	18,989	81.7	13,227	73.7	32,216	78.4
DC	5,846	95.4	3,665	68.1	9,511	84.9
DE	5,668	69.4	2,046	52.4	7,714	64.9
FL	154,982	93.3	93,232	73.3	248,214	85.8
GA	50,675	93.4	28,391	76.0	79,066	87.2
HI	5,821	95.4	3,857	75.1	9,678	87.3
IA	17,209	94.0	10,870	72.1	28,079	85.5
IL	59,148	89.0	46,725	69.7	105,873	80.5
IN	34,574	67.3	26,379	50.9	60,953	60.2
KS	17,358	91.2	9,957	69.4	27,315	83.2
KY	25,986	92.7	19,245	68.7	45,231	82.5
LA	22,450	93.5	17,006	70.5	39,456	83.6
MA	38,356	95.5	27,887	78.7	66,243	88.4
MD	23,064	94.9	22,354	76.6	45,418	85.9
ME	7,848	96.6	3,904	81.7	11,752	91.6
MI	60,353	84.8	41,648	62.4	102,001	75.7
MN	31,182	96.0	19,345	79.1	50,527	89.5
MO	42,451	95.4	28,094	83.9	70,545	90.8
MS	15,802	95.0	11,197	73.2	26,999	86.0
MT	6,297	78.9	3,641	65.6	9,938	74.0
NC	48,741	90.0	35,321	65.0	84,062	79.5
ND	4,737	96.1	3,109	79.8	7,846	89.6
NE	10,802	93.2	6,314	79.8	17,116	88.3
NJ	42,637	94.9	25,301	77.1	67,938	88.3
NM	9,758	97.1	6,947	82.0	16,705	90.8
NV	17,238	75.3	10,480	53.3	27,718	67.0
NY	103,504	95.2	54,818	85.7	158,322	91.9
ОН	69,760	77.2	56,942	54.7	126,702	67.1
OK	23,139	85.8	12,767	67.9	35,906	79.4
OR	20,991	95.1	11,623	72.9	32,614	87.2

	Inpatient stays with an injury reported in the principal diagnosis		reported o	tays with an injury nly as a secondary iagnosis	Inpatient stays with any mention of an injury diagnosis	
		Percent with				Percent with
		an external		Percent with an		an external
	Number of	cause of injury	Number	external cause of	Number	cause of injury
State	stays	code	of stays	injury code	of stays	code
PA	85,847	97.8	47,233	85.1	133,080	93.3
RI	6,733	94.1	4,691	81.5	11,424	88.9
SC	26,691	97.8	13,927	79.7	40,618	91.6
SD	5,507	85.7	3,503	70.1	9,010	79.6
TN	44,058	92.9	23,618	68.6	67,676	84.4
TX	129,115	89.9	77,781	62.7	206,896	79.7
UT	14,334	96.0	7,972	79.9	22,306	90.2
VA	38,768	94.1	25,197	71.7	63,965	85.3
VT	3,122	93.6	1,690	79.6	4,812	88.7
WA	31,592	96.6	19,586	78.3	51,178	89.6
WI	28,210	98.8	18,622	93.1	46,832	96.5
WV	13,365	84.5	7,939	56.4	21,304	74.0
WY	2,030	76.9	1,304	63.7	3,334	71.7

Table D.3b. Number of Inpatient Stays with an Injury Diagnosis and the Percentage of Injury-Related Stays with an External Cause of Injury Code, By State, 2018

	Inpatient stays with an injury reported in the principal		reported o	tays with an injury nly as a secondary	Inpatient stays with any mention of an injury	
	diagnosis		diagnosis		diagnosis	
		Percent with				Percent with
	Nousland	an external	Maria la arr	Percent with an	Manada an	an external
State	Number of stays	cause of injury code	Number of stays	external cause of injury code	Number of stays	cause of injury code
AK	3,536	94.2	2,210	76.8	5,746	87.5
AR	16,792	95.8	9,946	78.8	26,738	89.5
AZ	39,501	98.5	20,673	88.7	60,174	95.1
CA	191,736	95.7	111,529	79.2	303,265	89.6
СО	30,563	97.6	15,984	88.8	46,547	94.6
СТ	18,398	77.0	14,040	69.2	32,438	73.6
DC	5,956	94.1	3,642	69.6	9,598	84.8
DE	6,037	66.7	2,554	54.0	8,591	62.9
FL	153,534	96.6	96,769	80.4	250,303	90.4
GA	51,862	93.3	31,196	78.2	83,058	87.6
HI	5,755	95.9	4,048	74.6	9,803	87.1
IA	16,723	94.1	10,871	72.9	27,594	85.7
IL	59,889	87.9	48,606	69.3	108,495	79.6
IN	34,830	66.6	27,844	50.8	62,674	59.6
KS	17,825	90.9	11,402	69.9	29,227	82.7
KY	25,380	93.3	20,583	68.0	45,963	82.0
LA	23,773	95.0	17,533	72.0	41,306	85.2
MA	38,208	95.1	28,528	79.5	66,736	88.4
MD	22,860	94.8	24,114	75.9	46,974	85.1
ME	7,681	97.4	3,880	84.4	11,561	93.0
MI	59,257	84.5	43,438	62.1	102,695	75.0
MN	30,867	97.0	20,149	80.3	51,016	90.4
MO	42,588	94.9	29,807	84.0	72,395	90.4
MS	15,195	95.6	11,269	73.7	26,464	86.3
MT	6,301	76.7	3,676	63.1	9,977	71.7
NC	49,076	88.7	36,488	65.1	85,564	78.6
ND	4,723	95.5	3,051	80.8	7,774	89.7
NE	10,889	91.3	6,182	78.9	17,071	86.8
NJ	43,064	95.1	25,606	77.6	68,670	88.6
NM	9,786	97.3	7,097	83.1	16,883	91.4
NV	18,083	59.9	11,319	56.3	29,402	58.5
NY	104,671	96.8	58,099	86.7	162,770	93.2
ОН	68,069	73.8	59,025	51.8	127,094	63.6
ОК	22,267	92.3	12,485	72.3	34,752	85.1
OR	20,942	95.1	11,673	74.0	32,615	87.6

	Inpatient stays with an injury reported in the principal diagnosis		reported o	tays with an injury nly as a secondary liagnosis	Inpatient stays with any mention of an injury diagnosis	
		Percent with				Percent with
		an external		Percent with an		an external
	Number of	cause of injury	Number	external cause of	Number	cause of injury
State	stays	code	of stays	injury code	of stays	code
PA	86,163	97.8	48,069	85.2	134,232	93.3
RI	6,874	94.3	5,115	82.5	11,989	89.3
SC	27,198	95.6	13,816	81.5	41,014	90.8
SD	5,367	86.2	3,800	73.1	9,167	80.8
TN	43,833	95.5	23,658	75.8	67,491	88.6
TX	131,965	91.5	82,591	67.3	214,556	82.2
UT	13,999	97.7	7,512	86.5	21,511	93.8
VA	38,591	95.9	25,618	76.9	64,209	88.3
VT	3,088	89.4	1,635	74.4	4,723	84.2
WA	30,619	97.6	19,648	80.1	50,267	90.8
WI	27,156	98.9	18,303	93.2	45,459	96.6
WV	12,995	88.4	9,424	58.9	22,419	76.0
WY	2,050	74.6	1,393	67.2	3,443	71.6

Table D.4b. Number of Inpatient Stays with an Injury Diagnosis and the Percentage of Injury-Related Stays with an External Cause of Injury Code, By State, 2019

,	1	ys with an injury	· · · · · · · · · · · · · · · · · · ·	tays with an injury	Inpatient	stays with any
	reported in the principal		reported only as a secondary		mention of an injury	
	dia	gnosis	d	iagnosis	diagnosis	
		Percent with				Percent with
	N	an external	No. of the control of	Percent with an	A1	an external
State	Number of	cause of injury code	Number	external cause of injury code	Number	cause of injury code
AK	stays 3,605	94.5	of stays 2,305	74.5	of stays 5,910	86.7
AR	17,553	95.6	9,865	77.6	27,418	89.1
AZ	40,705	98.4	20,945	88.6	61,650	95.1
CA	194,276	94.7	115,933	78.1	310,209	88.5
CO	30,468	97.3	17,005	87.7	47,473	93.9
CT	18,576	89.8	14,741	77.9	33,317	84.5
DC	5,989	91.6	3,947	63.5	9,936	80.4
DE	6,357	66.1	2,565	55.0	8,922	62.9
FL	157,532	96.4	104,639	80.5	262,171	90.0
GA	53,945	94.7	33,947	78.7	87,892	88.6
HI	5,981	94.6	4,479	74.0	10,460	85.8
IA	17,018	94.4	10,779	73.9	27,797	86.4
IL	60,429	88.6	47,930	69.8	108,359	80.2
IN	35,218	64.2	28,571	48.1	63,789	57.0
KS	17,706	89.4	12,591	67.9	30,297	80.4
KY	24,932	92.2	20,309	67.1	45,241	80.9
LA	24,547	94.9	17,302	72.5	41,849	85.6
MA	38,792	95.8	28,984	79.7	67,776	88.9
MD	21,724	95.1	24,430	76.0	46,154	85.0
ME	7,649	97.7	3,978	82.6	11,627	92.6
MI	60,760	89.5	44,437	64.6	105,197	79.0
MN	30,342	97.1	20,077	80.1	50,419	90.4
МО	43,133	94.1	30,180	82.2	73,313	89.2
MS	15,101	95.8	11,534	75.3	26,635	86.9
MT	6,382	75.7	3,889	60.7	10,271	70.0
NC	51,222	87.8	37,775	63.9	88,997	77.6
ND	4,894	97.1	3,048	81.3	7,942	91.1
NE	11,352	93.1	6,644	81.1	17,996	88.6
NH	7,288	91.5	4,369	73.2	11,657	84.6
NJ	42,345	95.2	26,989	76.8	69,334	88.0
NM	10,191	97.4	6,853	86.0	17,044	92.8
NV	18,568	60.9	12,473	58.8	31,041	60.0
NY	103,377	97.5	61,105	87.9	164,482	93.9
ОН	70,381	71.7	60,562	50.5	130,943	61.9
OK	23,560	82.9	11,918	69.8	35,478	78.5

	Inpatient stays with an injury reported in the principal diagnosis		Inpatient stays with an injury reported only as a secondary diagnosis		Inpatient stays with any mention of an injury diagnosis	
	Number of	Percent with an external cause of injury	Number	Percent with an external cause of	Number	Percent with an external cause of injury
State	stays	code	of stays	injury code	of stays	code
OR	20,555	95.4	12,420	72.6	32,975	86.8
PA	83,726	97.9	46,795	86.2	130,521	93.7
RI	7,064	94.5	4,951	80.4	12,015	88.7
SC	26,807	96.2	14,416	82.0	41,223	91.3
SD	5,523	87.6	4,135	75.6	9,658	82.4
TN	45,539	95.1	25,430	75.4	70,969	88.0
TX	134,975	92.5	85,104	68.2	220,079	83.1
UT	14,458	97.5	8,337	87.0	22,795	93.7
VA	39,244	95.9	27,274	78.0	66,518	88.6
VT	3,003	90.8	1,735	74.9	4,738	85.0
WA	30,008	98.0	20,003	83.0	50,011	92.0
WI	27,660	98.7	18,802	92.5	46,462	96.2
WV	12,617	89.6	9,566	58.8	22,183	76.3
WY	2,057	74.0	1,332	63.1	3,389	69.7