

Injuries and External Causes: Reporting of Causes on the

HCUP State Emergency Department Databases (SEDD), 2016-2019

September 29, 2021

This report is updated as additional Healthcare Cost and Utilization Project (HCUP) State Emergency Department Databases (SEDD) become available.

• September 29, 2021

- o Information from the 2018-2019 SEDD from all HCUP Partners (40 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.¹ For data years 2016-2017, this change in the clinical criteria resulted in no change 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 emergency department visits 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.

June 23, 2020

• The first version included information from the 2016 and 2017 SEDD from participating HCUP Partners.

HCUP (09/29/2021)

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 Emergency Department Databases (SEDD), 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 Emergency Department Databases (SEDD) 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 Hold Injury Diagnosis Framework for Categorizing Injuries by Body Region and Nature of Injury. Injury-related emergency department (ED) visits are identified by any one of the following three criteria:

- 1. An injury-related diagnosis listed as the first-listed 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 *first-listed diagnosis* in ED data is the code for the diagnosis, condition, problem, or other reason for encounter/visit shown in the medical record to be chiefly responsible for the ED visit. *Secondary diagnoses* are concomitant conditions that coexist at the time of the ED visit.

For this report, ED visits are limited to those that do not result in admission to the same hospital (i.e., patients were treated in the ED and released from the ED). Five sets of figures are included:

- Figures <u>1a</u>-1d show by State the number of ED visits 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 ED visits by the three possible criteria for identifying an injury.
- Figures <u>3a</u>-3d show by State the percentage of ED visits that have both an injury diagnosis listed as a first-listed diagnosis and an external cause of injury code.
- Figures <u>4a</u>-4d show by State the percentage of ED visits that have both an injury diagnosis listed only as a secondary diagnosis and an external cause of injury code.
- Figures <u>5a</u>-5d show by State the percentage of ED visits 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 SEDD 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.

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² Injury and Violence Prevention Overview, Healthy People 2020, http://www.healthypeople.gov/2020/topics-objectives/topic/injury-and-violence-prevention (Accessed 8/6/2019)

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 Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, Or Only by an External Cause of Injury Code, By State, 2016

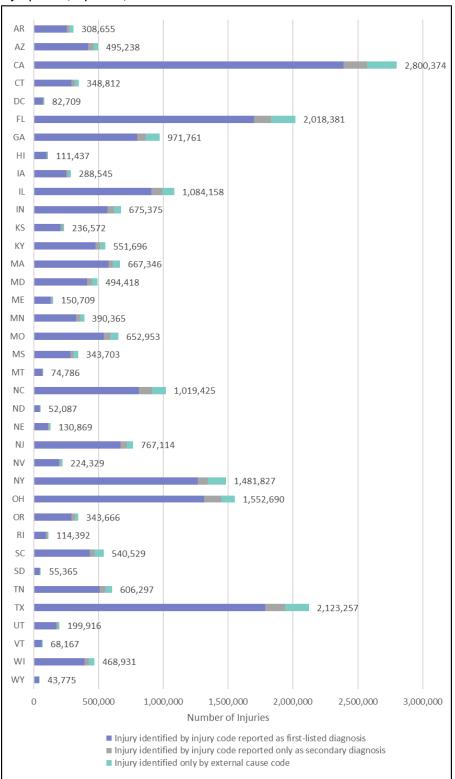


Figure 1b. Number of Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2017

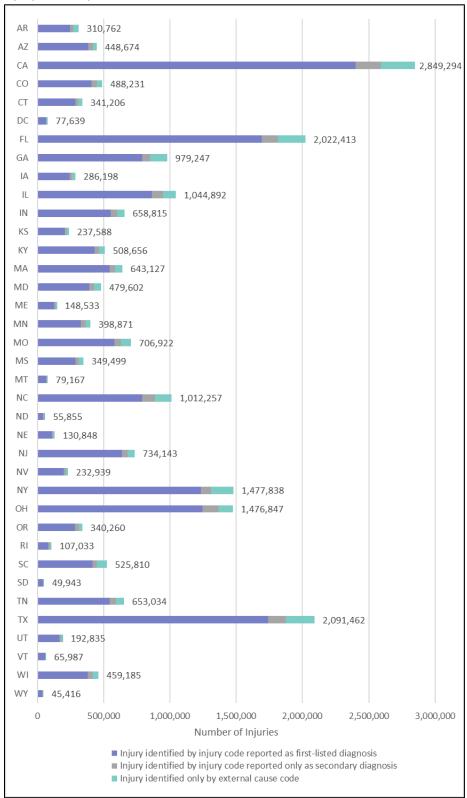


Figure 1c. Number of Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2018

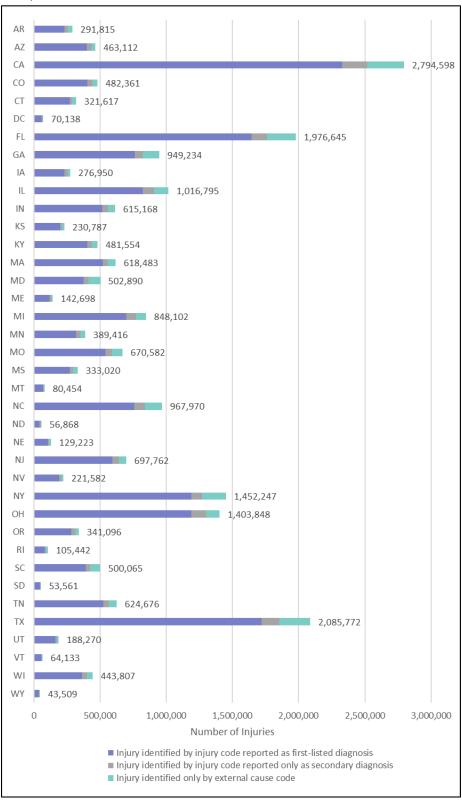


Figure 1d. Number of Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2019

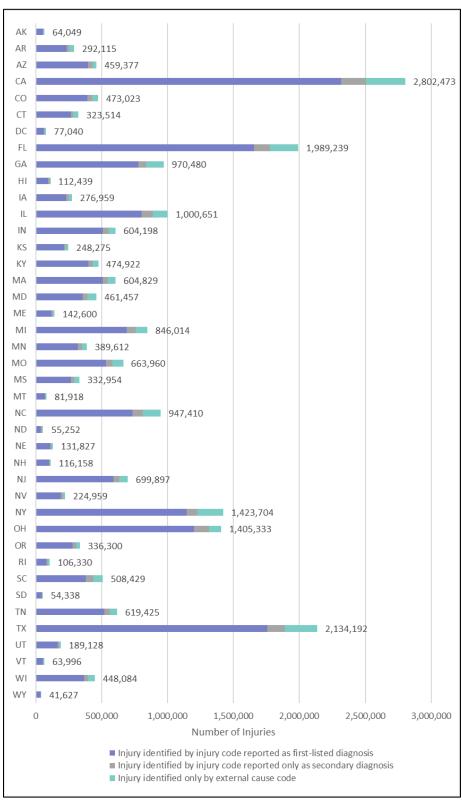


Figure 2a. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2016

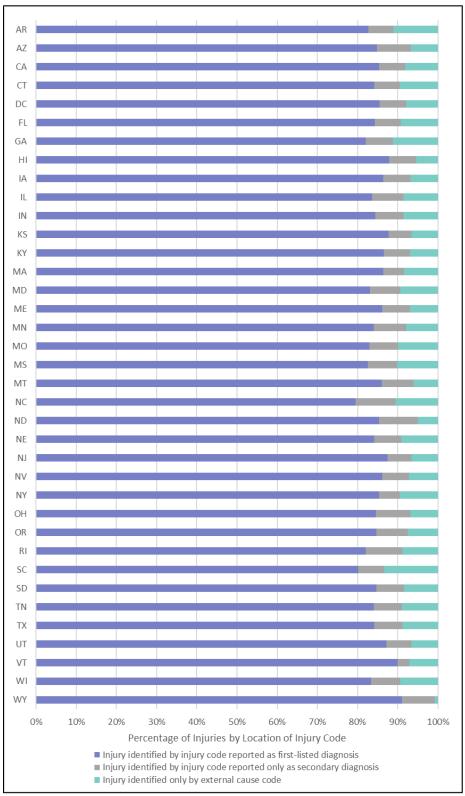


Figure 2b. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2017

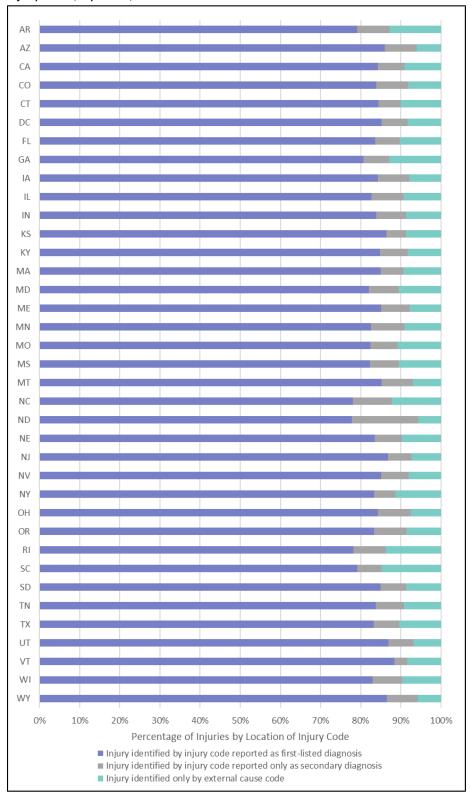


Figure 2c. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2018



Figure 2d. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2019

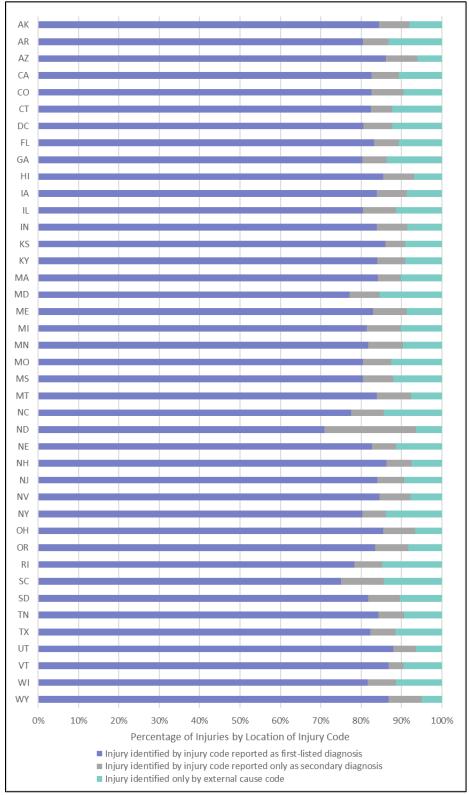


Figure 3a. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis That Also Have an External Cause of Injury Code, By State, 2016

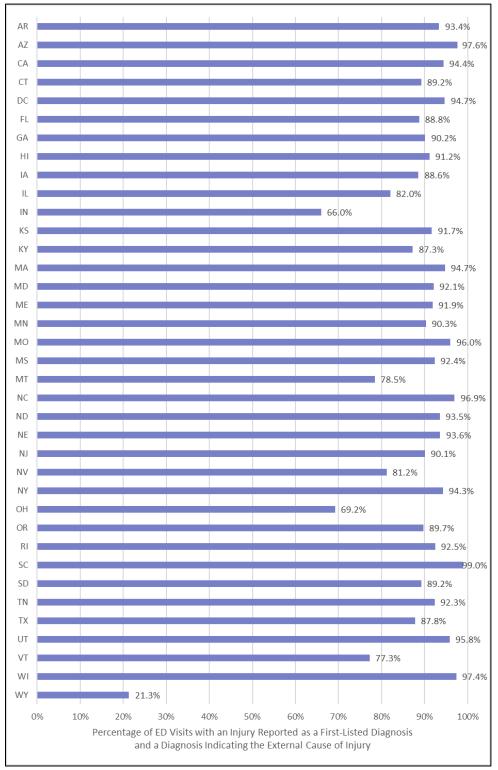


Figure 3b. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis That Also Have an External Cause of Injury Code, By State, 2017

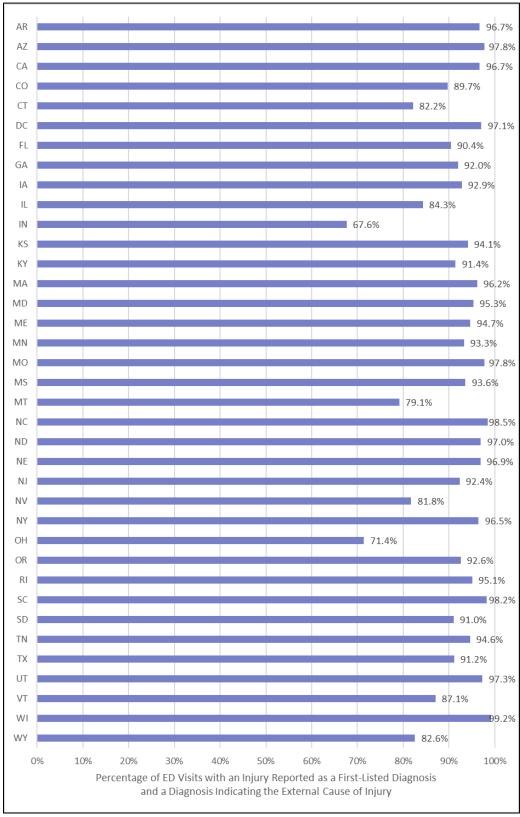


Figure 3c. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis That Also Have an External Cause of Injury Code, By State, 2018

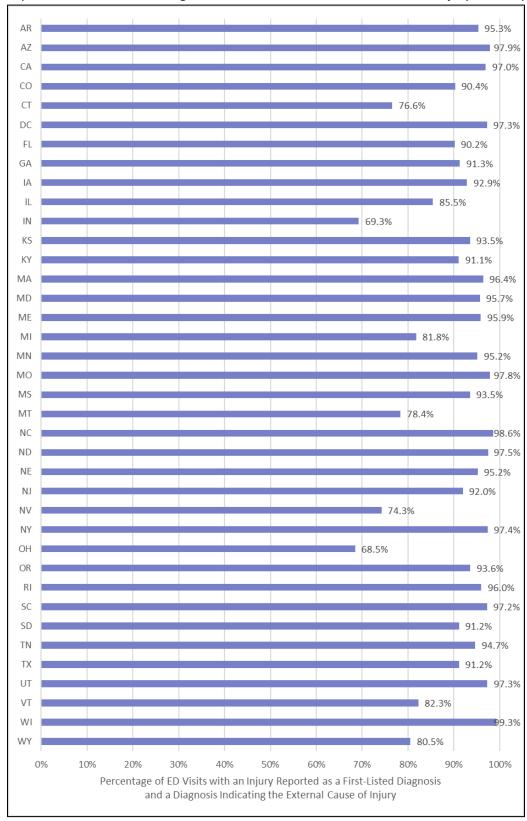


Figure 3d. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as a First-Listed Diagnosis That Also Have an External Cause of Injury Code, By State, 2019

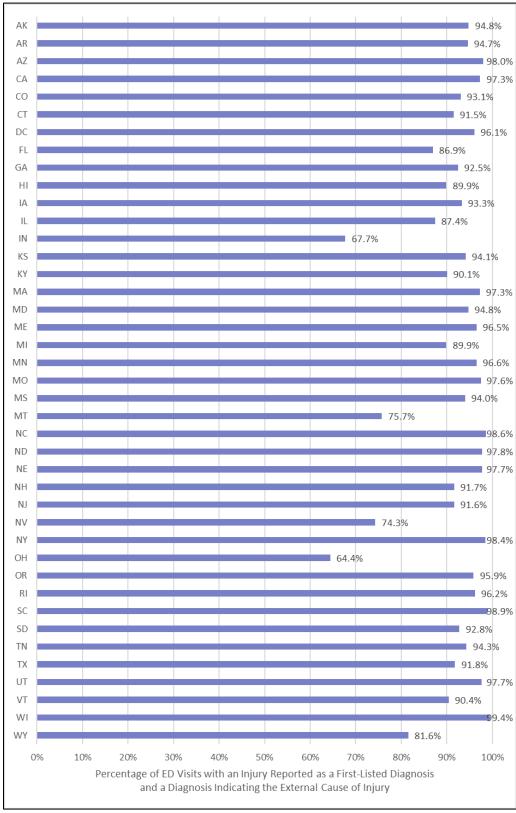


Figure 4a. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2016

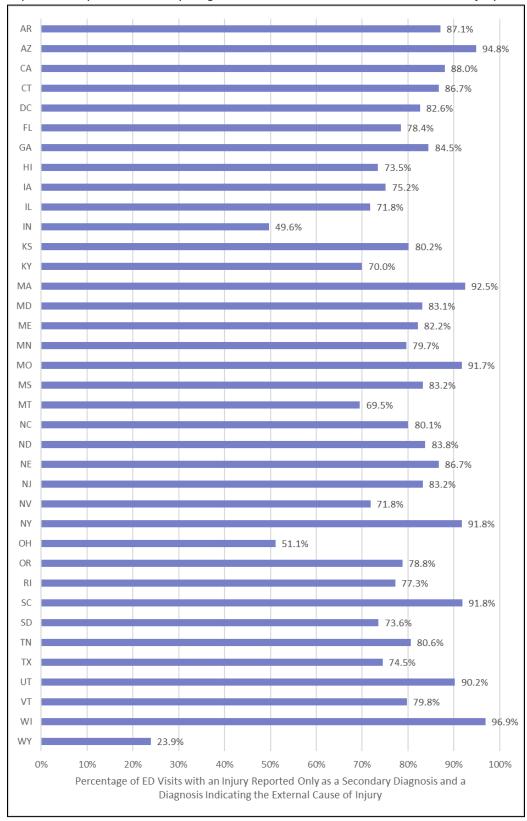


Figure 4b. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2017

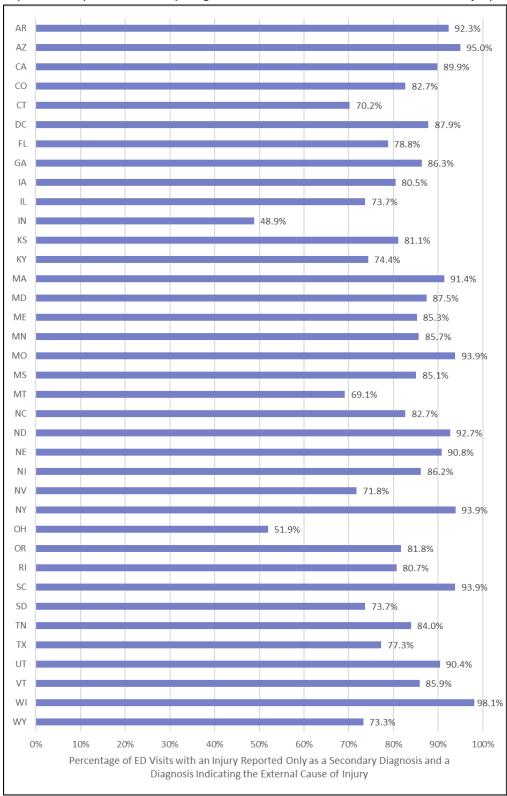


Figure 4c. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2018

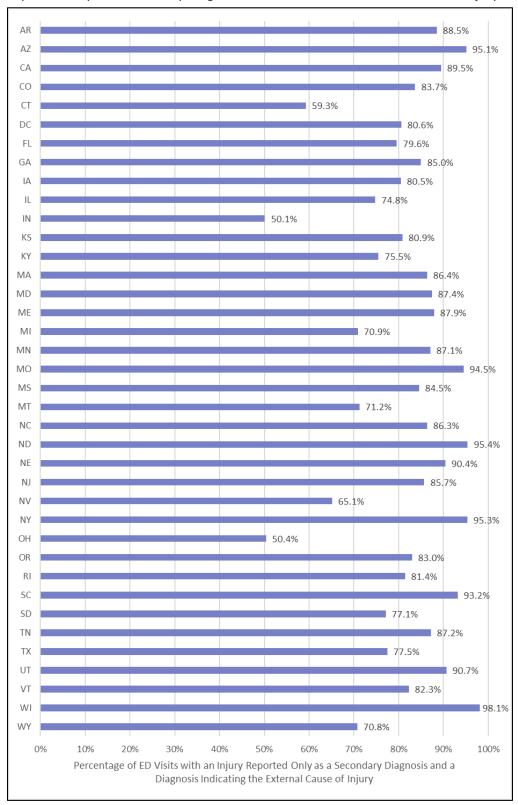


Figure 4d. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported Only as a Secondary Diagnosis That Also Have an External Cause of Injury Code, By State, 2019

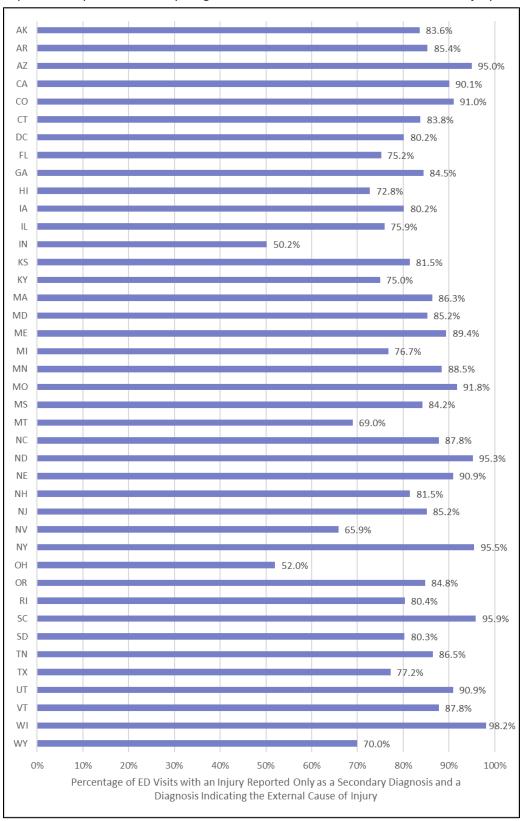


Figure 5a. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as Any Diagnosis That Also Have an External Cause of Injury Code, By State, 2016

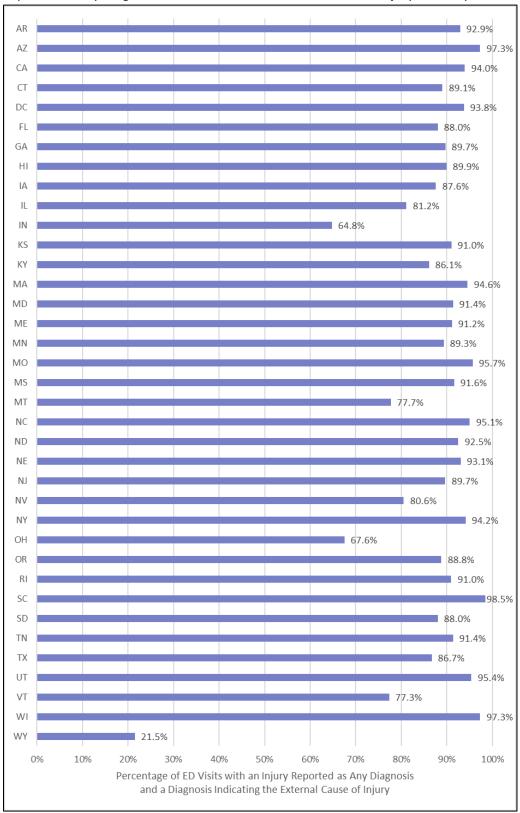


Figure 5b. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as Any Diagnosis That Also Have an External Cause of Injury Code, By State, 2017

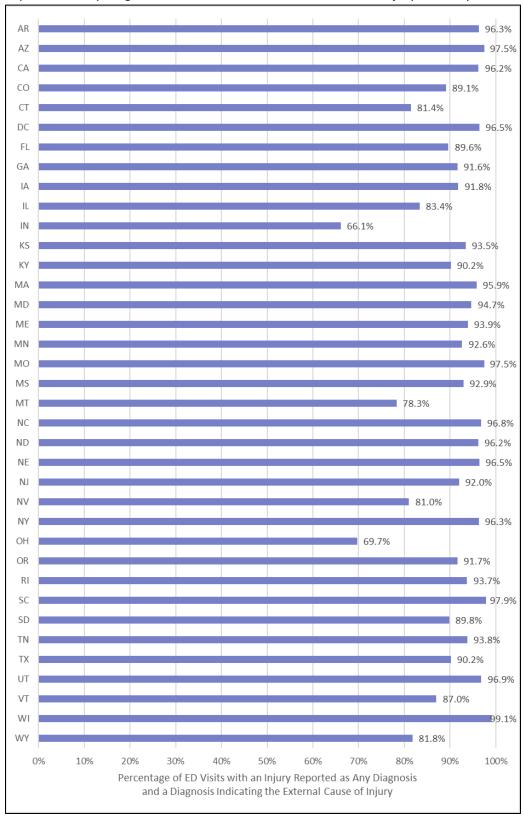
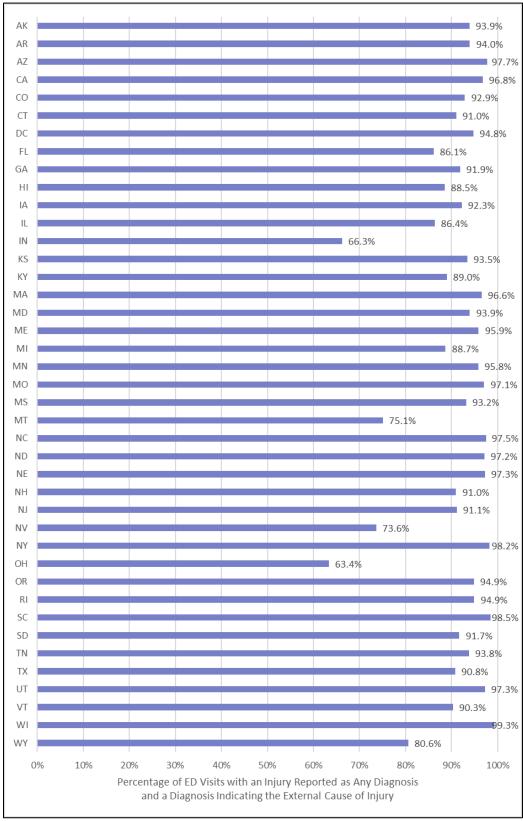


Figure 5c. Percentage of Injury-Related Treat-and-Release Emergency Department Visits with the Injury Reported as Any Diagnosis That Also Have an External Cause of Injury Code, By State, 2018



Figure 5d. Percentage of Injury-Related Treat-and-Release Emergency Department Visits 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

Arizona Department of Health Services

Arkansas Department of Health

California Office of Statewide Health Planning and Development

Colorado Hospital Association

Connecticut Hospital Association

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

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 Jersey 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

Oregon Association of Hospitals and Health Systems

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

Wisconsin Department of Health Services

Wyoming Hospital Association

Appendix B. Healthcare Cost and Utilization Project (HCUP) State Emergency Department Databases (SEDD)

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 Emergency Department Databases (SEDD) include information from hospital-owned emergency departments (EDs) from data organizations participating in HCUP, translated into a uniform format to facilitate multistate comparisons and analyses. The SEDD capture information on ED visits that do not result in an admission to the same hospital (i.e., patients who are treated in the ED and then discharged, transferred to another hospital, left against medical advice, or died).

Researchers and policymakers use the HCUP SEDD to investigate questions unique to one State, to compare data from two or more States, to conduct market area research or small variation analyses, and to identify State-specific trends in ED care. The SEDD contain more than 100 clinical and nonclinical data elements included in a hospital abstract, such as:

- First-listed 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 Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2016

	Injury identified by injury code reported as first-listed 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	Any injury
	Number	Percent of	Number of	Percent of	Number of	Percent of	Number of
_	of records	State Total	records	State	records	State	records
State	255 205	00.7	10.270	Total	24.004	Total	200 655
AR	255,285	82.7	19,279	6.2	34,091	11.0	308,655
AZ	419,882	84.8	42,100	8.5	33,256	6.7	495,238
CA	2,388,813	85.3	181,823	6.5	229,738	8.2	2,800,374
CT	293,399	84.1	22,179	6.4	33,234	9.5	348,812
DC	70,689	85.5	5,537	6.7	6,483	7.8	82,709
FL	1,700,015	84.2	130,931	6.5	187,435	9.3	2,018,381
GA	797,221	82.0	65,460	6.7	109,080	11.2	971,761
HI	97,956	87.9	7,471	6.7	6,010	5.4	111,437
IA	249,341	86.4	19,403	6.7	19,801	6.9	288,545
IL	906,120	83.6	85,060	7.8	92,978	8.6	1,084,158
IN	570,545	84.5	46,981	7.0	57,849	8.6	675,375
KS	207,456	87.7	13,578	5.7	15,538	6.6	236,572
KY	477,491	86.5	35,522	6.4	38,683	7.0	551,696
MA	576,507	86.4	34,477	5.2	56,362	8.4	667,346
MD	411,066	83.1	37,223	7.5	46,129	9.3	494,418
ME	129,900	86.2	10,399	6.9	10,410	6.9	150,709
MN	328,120	84.1	31,585	8.1	30,660	7.9	390,365
МО	541,648	83.0	46,392	7.1	64,913	9.9	652,953
MS	283,658	82.5	24,960	7.3	35,085	10.2	343,703
MT	64,367	86.1	5,872	7.9	4,547	6.1	74,786
NC	810,079	79.5	101,571	10.0	107,775	10.6	1,019,425
ND	44,430	85.3	5,037	9.7	2,620	5.0	52,087
NE	110,053	84.1	8,881	6.8	11,935	9.1	130,869
NJ	671,063	87.5	45,680	6.0	50,371	6.6	767,114
NV	193,105	86.1	15,106	6.7	16,118	7.2	224,329
NY	1,265,720	85.4	76,341	5.2	139,766	9.4	1,481,827
ОН	1,313,386	84.6	133,170	8.6	106,134	6.8	1,552,690
OR	291,052	84.7	26,920	7.8	25,694	7.5	343,666
RI	93,861	82.1	10,386	9.1	10,145	8.9	114,392
SC	433,087	80.1	35,590	6.6	71,852	13.3	540,529
SD	46,879	84.7	3,831	6.9	4,655	8.4	55,365

	Injury identified by injury code reported as first-listed diagnosis		injury 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 of records	Percent of State Total	Number of records	Percent of State	Number of records	Percent of State	Number of records
State	Orrecords	State Iotal	records	Total	records	Total	records
TN	509,088	84.0	43,231	7.1	53,978	8.9	606,297
TX	1,786,716	84.1	149,811	7.1	186,730	8.8	2,123,257
UT	174,340	87.2	12,452	6.2	13,124	6.6	199,916
VT	61,326	90.0	2,000	2.9	4,841	7.1	68,167
WI	391,139	83.4	33,778	7.2	44,014	9.4	468,931
WY	39,876	91.1	3,571	8.2	328	0.7	43,775

Table D.1b. Number and Percentage of Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2017

	Injury identified by injury code reported as first-listed diagnosis		y code reported as code reported only as		Injury identife external cau code (no diagnosis reco	se of injury injury code on	Any injury
	Number	Percent of	Number of	Percent of	Number of	Percent of	Number of
State	of records	State Total	records	State Total	records	State Total	records
AR	245,913	79.1	25,019	8.1	39,830	12.8	310,762
AZ	385,690	86.0	36,103	8.0	26,881	6.0	448,674
CA	2,401,098	84.3	189,466	6.6	258,730	9.1	2,849,294
СО	409,885	84.0	38,651	7.9	39,695	8.1	488,231
СТ	287,864	84.4	18,983	5.6	34,359	10.1	341,206
DC	66,213	85.3	5,014	6.5	6,412	8.3	77,639
FL	1,691,396	83.6	122,670	6.1	208,347	10.3	2,022,413
GA	790,571	80.7	62,372	6.4	126,304	12.9	979,247
IA	241,238	84.3	22,388	7.8	22,572	7.9	286,198
IL	864,069	82.7	83,511	8.0	97,312	9.3	1,044,892
IN	553,017	83.9	48,157	7.3	57,641	8.7	658,815
KS	205,388	86.4	11,606	4.9	20,594	8.7	237,588
KY	431,688	84.9	34,884	6.9	42,084	8.3	508,656
MA	546,549	85.0	36,834	5.7	59,744	9.3	643,127
MD	393,739	82.1	35,377	7.4	50,486	10.5	479,602
ME	126,373	85.1	10,644	7.2	11,516	7.8	148,533
MN	329,373	82.6	33,026	8.3	36,472	9.1	398,871
MO	582,349	82.4	48,421	6.8	76,152	10.8	706,922
MS	287,482	82.3	24,972	7.1	37,045	10.6	349,499
MT	67,497	85.3	6,164	7.8	5,506	7.0	79,167
NC	790,164	78.1	97,765	9.7	124,328	12.3	1,012,257
ND	43,456	77.8	9,280	16.6	3,119	5.6	55,855
NE	109,200	83.5	8,824	6.7	12,824	9.8	130,848
NJ	637,190	86.8	42,929	5.8	54,024	7.4	734,143
NV	198,283	85.1	15,823	6.8	18,833	8.1	232,939
NY	1,231,726	83.3	79,319	5.4	166,793	11.3	1,477,838
ОН	1,244,244	84.3	122,231	8.3	110,372	7.5	1,476,847
OR	283,512	83.3	27,660	8.1	29,088	8.5	340,260
RI	83,647	78.2	8,765	8.2	14,621	13.7	107,033
SC	416,254	79.2	32,072	6.1	77,484	14.7	525,810
SD	42,434	85.0	3,157	6.3	4,352	8.7	49,943
TN	546,897	83.7	45,866	7.0	60,271	9.2	653,034
TX	1,739,684	83.2	132,746	6.3	219,032	10.5	2,091,462
UT	167,622	86.9	11,994	6.2	13,219	6.9	192,835

	injury code	entified by reported as 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	Any injury
	Number	Percent of	Number of	Percent of	Number of	Percent of	Number of
	of records	State Total	records	State	records	State	records
State				Total		Total	
VT	58,316	88.4	2,099	3.2	5,572	8.4	65,987
WI	381,058	83.0	34,143	7.4	43,984	9.6	459,185
WY	39,302	86.5	3,504	7.7	2,610	5.7	45,416

Table D.1c. Number and Percentage of Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2018

	Injury identified by injury code reported as first-listed diagnosis		injury code reported as code reported only as		Injury identife external cau code (no diagnosis reco	se of injury injury code on	Any injury
	Number	Percent of	Number of	Percent of	Number of	Percent of	Number of
	of records	State Total	records	State	records	State	records
State				Total		Total	
AR	232,433	79.7	21,137	7.2	38,245	13.1	291,815
AZ	399,864	86.3	36,423	7.9	26,825	5.8	463,112
CA	2,329,920	83.4	188,496	6.7	276,182	9.9	2,794,598
СО	403,303	83.6	38,391	8.0	40,667	8.4	482,361
СТ	272,050	84.6	16,713	5.2	32,854	10.2	321,617
DC	59,666	85.1	4,370	6.2	6,102	8.7	70,138
FL	1,642,598	83.1	118,849	6.0	215,198	10.9	1,976,645
GA	761,713	80.2	60,601	6.4	126,920	13.4	949,234
IA	231,390	83.5	22,519	8.1	23,041	8.3	276,950
IL	824,430	81.1	84,351	8.3	108,014	10.6	1,016,795
IN	516,098	83.9	45,070	7.3	54,000	8.8	615,168
KS	199,272	86.3	11,575	5.0	19,940	8.6	230,787
KY	402,763	83.6	34,836	7.2	43,955	9.1	481,554
MA	519,733	84.0	36,872	6.0	61,878	10.0	618,483
MD	375,915	74.8	34,782	6.9	92,193	18.3	502,890
ME	119,452	83.7	11,535	8.1	11,711	8.2	142,698
MI	698,651	82.4	73,547	8.7	75,904	8.9	848,102
MN	318,110	81.7	32,429	8.3	38,877	10.0	389,416
MO	542,723	80.9	48,319	7.2	79,540	11.9	670,582
MS	270,086	81.1	24,260	7.3	38,674	11.6	333,020
MT	68,193	84.8	6,321	7.9	5,940	7.4	80,454
NC	757,277	78.2	80,381	8.3	130,312	13.5	967,970
ND	39,943	70.2	13,394	23.6	3,531	6.2	56,868
NE	106,460	82.4	9,391	7.3	13,372	10.3	129,223
NJ	595,376	85.3	44,577	6.4	57,809	8.3	697,762
NV	189,379	85.5	16,765	7.6	15,438	7.0	221,582
NY	1,188,528	81.8	81,800	5.6	181,919	12.5	1,452,247
ОН	1,187,955	84.6	114,381	8.1	101,512	7.2	1,403,848
OR	282,899	82.9	27,991	8.2	30,206	8.9	341,096
RI	82,237	78.0	7,938	7.5	15,267	14.5	105,442
SC	393,474	78.7	32,049	6.4	74,542	14.9	500,065
SD	43,957	82.1	4,098	7.7	5,506	10.3	53,561
TN	523,093	83.7	41,251	6.6	60,332	9.7	624,676
TX	1,721,792	82.5	132,543	6.4	231,437	11.1	2,085,772

	injury code	entified by reported as d diagnosis	Injury identified by injury code reported only as secondary diagnosis		Injury identife external cau code (no diagnosis reco	se of injury injury code on	Any injury
	Number	Percent of	Number of	Percent of	Number of	Percent of	Number of
	of records	State Total	records	State	records	State	records
State				Total		Total	
UT	163,796	87.0	11,516	6.1	12,958	6.9	188,270
VT	56,464	88.0	2,405	3.8	5,264	8.2	64,133
WI	365,142	82.3	34,005	7.7	44,660	10.1	443,807
WY	37,426	86.0	3,408	7.8	2,675	6.1	43,509

Table D.1d. Number and Percentage of Treat-and-Release Emergency Department Visits with an Injury Diagnosis Reported as a First-Listed Diagnosis, Only as a Secondary Diagnosis, or Only as an External Cause of Injury Code, By State, 2019

	Injury identified by injury code reported as first-listed diagnosis		injury code reported as code reported only as		ed only as	Injury identife external cau code (no diagnosis reco	se of injury injury code on	Any injury
61.11	Number of records	Percent of State Total	Number of records	Percent of State	Number of records	Percent of State	Number of records	
State	54.024	04.4	4.056	Total	5.450	Total	64.040	
AK	54,034	84.4	4,856	7.6	5,159	8.1	64,049	
AR	234,945	80.4	18,537	6.3	38,633	13.2	292,115	
AZ	395,465	86.1	36,257	7.9	27,655	6.0	459,377	
CA	2,315,571	82.6	188,374	6.7	298,528	10.7	2,802,473	
CO	390,559	82.6	37,767	8.0	44,697	9.4	473,023	
CT	266,606	82.4	17,170	5.3	39,738	12.3	323,514	
DC	62,047	80.5	5,512	7.2	9,481	12.3	77,040	
FL	1,656,380	83.3	121,674	6.1	211,185	10.6	1,989,239	
GA	779,167	80.3	59,380	6.1	131,933	13.6	970,480	
HI	96,109	85.5	8,610	7.7	7,720	6.9	112,439	
IA	232,284	83.9	20,751	7.5	23,924	8.6	276,959	
IL	804,580	80.4	81,992	8.2	114,079	11.4	1,000,651	
IN	507,027	83.9	45,706	7.6	51,465	8.5 9.1	604,198	
KS	213,697	86.1	12,053	4.9	22,525		248,275	
KY	399,285	84.1	32,206	6.8	43,431	9.1	474,922	
MA	509,040	84.2 77.2	34,736	5.7 7.4	61,053	10.1 15.4	604,829	
MD ME	356,144	83.0	34,028 11,923	8.4	71,285	8.6	461,457	
MI	118,378 688,827	81.4	71,036	8.4	12,299	10.2	142,600 846,014	
MN	318,587	81.8	33,753	8.7	86,151 37,272	9.6	389,612	
MO	534,116	80.4	46,435	7.0	83,409	12.6	663,960	
MS	267,988	80.4	25,105	7.5	39,861	12.0	332,954	
MT	68,767	83.9	6,918	8.4	6,233	7.6	81,918	
NC	734,241	77.5	77,118	8.1	136,051	14.4	947,410	
ND	39,149	70.9	12,545	22.7	3,558	6.4	55,252	
NE NE	109,089	82.8	7,737	5.9	15,001	11.4	131,827	
NH	100,282	86.3	7,737	6.1	8,747	7.5	116,158	
NJ	587,852	84.0	46,377	6.6	65,668	9.4	699,897	
NV	190,149	84.5	17,254	7.7	17,556	7.8	224,959	
NY	1,143,695	80.3	83,412	5.9	196,597	13.8	1,423,704	
ОН	1,202,119	85.5	110,232	7.8	92,982	6.6	1,405,333	
OR	280,645	83.5	27,983	8.3	27,672	8.2	336,300	
RI	83,338	78.4	7,302	6.9	15,690	14.8	106,330	
SC	381,151	75.0	54,191	10.7	73,087	14.4	508,429	

	Injury identified by injury code reported as first-listed diagnosis		Injury identifi code report secondary	ed only as	Injury identife external cau code (no diagnosis reco	se of injury injury code on	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
State				Total		Total	
SD	44,411	81.7	4,256	7.8	5,671	10.4	54,338
TN	522,023	84.3	39,563	6.4	57,839	9.3	619,425
TX	1,755,415	82.3	135,281	6.3	243,496	11.4	2,134,192
UT	166,418	88.0	10,434	5.5	12,276	6.5	189,128
VT	55,574	86.8	2,326	3.6	6,096	9.5	63,996
WI	366,034	81.7	31,434	7.0	50,616	11.3	448,084
WY	36,122	86.8	3,405	8.2	2,100	5.0	41,627

Table D.2a. Number of Treat-and-Release Emergency Department Visits with an Injury Diagnosis and the Percentage of Injury-Related Visits with an External Cause of Injury Code, By State, 2016

Emergency department visits Emergency department visits									
	Emergency do	epartment visits		h an injury	Fmergen	cy department			
		reported in the		nly as a secondary	_	any mention of			
		ed diagnosis	-	iagnosis		ry 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			
	records	code	of records	injury code	of records	code			
AR	255,285	93.4	19,279	87.1	274,564	92.9			
AZ	419,882	97.6	42,100	94.8	461,982	97.3			
CA	2,388,813	94.4	181,823	88.0	2,570,636	94.0			
СТ	293,399	89.2	22,179	86.7	315,578	89.1			
DC	70,689	94.7	5,537	82.6	76,226	93.8			
FL	1,700,015	88.8	130,931	78.4	1,830,946	88.0			
GA	797,221	90.2	65,460	84.5	862,681	89.7			
HI	97,956	91.2	7,471	73.5	105,427	89.9			
IA	249,341	88.6	19,403	75.2	268,744	87.6			
IL	906,120	82.0	85,060	71.8	991,180	81.2			
IN	570,545	66.0	46,981	49.6	617,526	64.8			
KS	207,456	91.7	13,578	80.2	221,034	91.0			
KY	477,491	87.3	35,522	70.0	513,013	86.1			
MA	576,507	94.7	34,477	92.5	610,984	94.6			
MD	411,066	92.1	37,223	83.1	448,289	91.4			
ME	129,900	91.9	10,399	82.2	140,299	91.2			
MN	328,120	90.3	31,585	79.7	359,705	89.3			
MO	541,648	96.0	46,392	91.7	588,040	95.7			
MS	283,658	92.4	24,960	83.2	308,618	91.6			
MT	64,367	78.5	5,872	69.5	70,239	77.7			
NC	810,079	96.9	101,571	80.1	911,650	95.1			
ND	44,430	93.5	5,037	83.8	49,467	92.5			
NE	110,053	93.6	8,881	86.7	118,934	93.1			
NJ	671,063	90.1	45,680	83.2	716,743	89.7			
NV	193,105	81.2	15,106	71.8	208,211	80.6			
NY	1,265,720	94.3	76,341	91.8	1,342,061	94.2			
ОН	1,313,386	69.2	133,170	51.1	1,446,556	67.6			
OR	291,052	89.7	26,920	78.8	317,972	88.8			
RI	93,861	92.5	10,386	77.3	104,247	91.0			
SC	433,087	99.0	35,590	91.8	468,677	98.5			
SD	46,879	89.2	3,831	73.6	50,710	88.0			
TN	509,088	92.3	43,231	80.6	552,319	91.4			
TX	1,786,716	87.8	149,811	74.5	1,936,527	86.7			
UT	174,340	95.8	12,452	90.2	186,792	95.4			

State	Emergency department visits with an injury reported in the first-listed diagnosis		wit reported o	department visits h an injury nly as a secondary liagnosis	Emergency department visits 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
	records	code	of records	injury code	of records	code
VT	61,326	77.3	2,000	79.8	63,326	77.3
WI	391,139	97.4	33,778	96.9	424,917	97.3
WY	39,876	21.3	3,571	23.9	43,447	21.5

Table D.2b. Number of Treat-and-Release Emergency Department Visits with an Injury Diagnosis and the Percentage of Injury-Related Visits with an External Cause of Injury Code, By State, 2017

Emergency department visits Emergency department visits						
	Emergency d	enartment visits		h an injury	Emergen	cy denartment
	Emergency department visits with an injury reported in the		reported only as a secondary		Emergency department visits with any mention of	
	first-listed diagnosis		diagnosis		an injury diagnosis	
	Percent with		4145110313		Percent with	
		an external		Percent with an		an external
	Number of	cause of injury	Number	external cause of	Number	cause of injury
State	records	code	of records	injury code	of records	code
AR	245,913	96.7	25,019	92.3	270,932	96.3
AZ	385,690	97.8	36,103	95.0	421,793	97.5
CA	2,401,098	96.7	189,466	89.9	2,590,564	96.2
СО	409,885	89.7	38,651	82.7	448,536	89.1
СТ	287,864	82.2	18,983	70.2	306,847	81.4
DC	66,213	97.1	5,014	87.9	71,227	96.5
FL	1,691,396	90.4	122,670	78.8	1,814,066	89.6
GA	790,571	92.0	62,372	86.3	852,943	91.6
IA	241,238	92.9	22,388	80.5	263,626	91.8
IL	864,069	84.3	83,511	73.7	947,580	83.4
IN	553,017	67.6	48,157	48.9	601,174	66.1
KS	205,388	94.1	11,606	81.1	216,994	93.5
KY	431,688	91.4	34,884	74.4	466,572	90.2
MA	546,549	96.2	36,834	91.4	583,383	95.9
MD	393,739	95.3	35,377	87.5	429,116	94.7
ME	126,373	94.7	10,644	85.3	137,017	93.9
MN	329,373	93.3	33,026	85.7	362,399	92.6
МО	582,349	97.8	48,421	93.9	630,770	97.5
MS	287,482	93.6	24,972	85.1	312,454	92.9
MT	67,497	79.1	6,164	69.1	73,661	78.3
NC	790,164	98.5	97,765	82.7	887,929	96.8
ND	43,456	97.0	9,280	92.7	52,736	96.2
NE	109,200	96.9	8,824	90.8	118,024	96.5
NJ	637,190	92.4	42,929	86.2	680,119	92.0
NV	198,283	81.8	15,823	71.8	214,106	81.0
NY	1,231,726	96.5	79,319	93.9	1,311,045	96.3
ОН	1,244,244	71.4	122,231	51.9	1,366,475	69.7
OR	283,512	92.6	27,660	81.8	311,172	91.7
RI	83,647	95.1	8,765	80.7	92,412	93.7
SC	416,254	98.2	32,072	93.9	448,326	97.9
SD	42,434	91.0	3,157	73.7	45,591	89.8
TN	546,897	94.6	45,866	84.0	592,763	93.8
TX	1,739,684	91.2	132,746	77.3	1,872,430	90.2
UT	167,622	97.3	11,994	90.4	179,616	96.9
						L.

	Emergency department visits with an injury reported in the first-listed diagnosis		wit reported o	department visits h an injury nly as a secondary iagnosis	Emergency department visits 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	records	code	of records	injury code	of records	code
VT	58,316	87.1	2,099	85.9	60,415	87.0
WI	381,058	99.2	34,143	98.1	415,201	99.1
WY	39,302	82.6	3,504	73.3	42,806	81.8

Table D.2c. Number of Treat-and-Release Emergency Department Visits with an Injury Diagnosis and the Percentage of Injury-Related Visits with an External Cause of Injury Code, By State, 2018

Гегеспта	Emergency department visits Emergency department visits						
	Emorgoney d	onartment vicits		-	Emorgon	cy donartment	
	Emergency department visits with an injury reported in the		with an injury reported only as a secondary		Emergency department visits with any mention of		
	first-listed diagnosis		diagnosis		an injury diagnosis		
	Percent with		diagilosis		Percent with		
		an external		Percent with an		an external	
	Number of	cause of injury	Number	external cause of	Number	cause of injury	
State	records	code	of records	injury code	of records	code	
AR	232,433	95.3	21,137	88.5	253,570	94.8	
AZ	399,864	97.9	36,423	95.1	436,287	97.7	
CA	2,329,920	97.0	188,496	89.5	2,518,416	96.4	
СО	403,303	90.4	38,391	83.7	441,694	89.8	
СТ	272,050	76.6	16,713	59.3	288,763	75.6	
DC	59,666	97.3	4,370	80.6	64,036	96.2	
FL	1,642,598	90.2	118,849	79.6	1,761,447	89.5	
GA	761,713	91.3	60,601	85.0	822,314	90.9	
IA	231,390	92.9	22,519	80.5	253,909	91.8	
IL	824,430	85.5	84,351	74.8	908,781	84.5	
IN	516,098	69.3	45,070	50.1	561,168	67.7	
KS	199,272	93.5	11,575	80.9	210,847	92.8	
KY	402,763	91.1	34,836	75.5	437,599	89.9	
MA	519,733	96.4	36,872	86.4	556,605	95.8	
MD	375,915	95.7	34,782	87.4	410,697	95.0	
ME	119,452	95.9	11,535	87.9	130,987	95.2	
MI	698,651	81.8	73,547	70.9	772,198	80.8	
MN	318,110	95.2	32,429	87.1	350,539	94.4	
МО	542,723	97.8	48,319	94.5	591,042	97.6	
MS	270,086	93.5	24,260	84.5	294,346	92.8	
MT	68,193	78.4	6,321	71.2	74,514	77.8	
NC	757,277	98.6	80,381	86.3	837,658	97.4	
ND	39,943	97.5	13,394	95.4	53,337	97.0	
NE	106,460	95.2	9,391	90.4	115,851	94.8	
NJ	595,376	92.0	44,577	85.7	639,953	91.5	
NV	189,379	74.3	16,765	65.1	206,144	73.5	
NY	1,188,528	97.4	81,800	95.3	1,270,328	97.3	
ОН	1,187,955	68.5	114,381	50.4	1,302,336	66.9	
OR	282,899	93.6	27,991	83.0	310,890	92.6	
RI	82,237	96.0	7,938	81.4	90,175	94.7	
SC	393,474	97.2	32,049	93.2	425,523	96.9	
SD	43,957	91.2	4,098	77.1	48,055	90.0	
TN	523,093	94.7	41,251	87.2	564,344	94.1	
TX	1,721,792	91.2	132,543	77.5	1,854,335	90.2	

	Emergency department visits with an injury reported in the first-listed diagnosis		Emergency department visits with an injury reported only as a secondary diagnosis		Emergency department visits with any mention of an injury diagnosis	
State	Number of records	Percent with an external cause of injury code	Number of records	Percent with an external cause of injury code	Number of records	Percent with an external cause of injury code
UT	163,796	97.3	11,516	90.7	175,312	96.9
VT	56,464	82.3	2,405	82.3	58,869	82.3
WI	365,142	99.3	34,005	98.1	399,147	99.2
WY	37,426	80.5	3,408	70.8	40,834	79.7

Table D.2d. Number of Treat-and-Release Emergency Department Visits with an Injury Diagnosis and the Percentage of Injury-Related Visits with an External Cause of Injury Code, By State, 2019

Emergency department visits Emergency department visits							
	Emergency do	epartment visits	with an injury		Emergency department		
	with an injury reported in the		reported only as a secondary		visits with any mention of		
	first-listed diagnosis		diagnosis		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	records	code	of records	injury code	of records	code	
AK	54,034	94.8	4,856	83.6	58,890	93.9	
AR	234,945	94.7	18,537	85.4	253,482	94.0	
AZ	395,465	98.0	36,257	95.0	431,722	97.7	
CA	2,315,571	97.3	188,374	90.1	2,503,945	96.8	
СО	390,559	93.1	37,767	91.0	428,326	92.9	
СТ	266,606	91.5	17,170	83.8	283,776	91.0	
DC	62,047	96.1	5,512	80.2	67,559	94.8	
FL	1,656,380	86.9	121,674	75.2	1,778,054	86.1	
GA	779,167	92.5	59,380	84.5	838,547	91.9	
HI	96,109	89.9	8,610	72.8	104,719	88.5	
IA	232,284	93.3	20,751	80.2	253,035	92.3	
IL	804,580	87.4	81,992	75.9	886,572	86.4	
IN	507,027	67.7	45,706	50.2	552,733	66.3	
KS	213,697	94.1	12,053	81.5	225,750	93.5	
KY	399,285	90.1	32,206	75.0	431,491	89.0	
MA	509,040	97.3	34,736	86.3	543,776	96.6	
MD	356,144	94.8	34,028	85.2	390,172	93.9	
ME	118,378	96.5	11,923	89.4	130,301	95.9	
MI	688,827	89.9	71,036	76.7	759,863	88.7	
MN	318,587	96.6	33,753	88.5	352,340	95.8	
МО	534,116	97.6	46,435	91.8	580,551	97.1	
MS	267,988	94.0	25,105	84.2	293,093	93.2	
MT	68,767	75.7	6,918	69.0	75,685	75.1	
NC	734,241	98.6	77,118	87.8	811,359	97.5	
ND	39,149	97.8	12,545	95.3	51,694	97.2	
NE	109,089	97.7	7,737	90.9	116,826	97.3	
NH	100,282	91.7	7,129	81.5	107,411	91.0	
NJ	587,852	91.6	46,377	85.2	634,229	91.1	
NV	190,149	74.3	17,254	65.9	207,403	73.6	
NY	1,143,695	98.4	83,412	95.5	1,227,107	98.2	
ОН	1,202,119	64.4	110,232	52.0	1,312,351	63.4	
OR	280,645	95.9	27,983	84.8	308,628	94.9	
RI	83,338	96.2	7,302	80.4	90,640	94.9	
SC	381,151	98.9	54,191	95.9	435,342	98.5	

	Emergency department visits with an injury reported in the first-listed diagnosis		reported in the reported only as a secondary		Emergency department visits with any mention of an injury diagnosis	
	Number of	Percent with an external cause of injury	Percent with an Number external cause of		Number	Percent with an external cause of injury
State	records	code	of records	injury code	of records	code
SD	44,411	92.8	4,256	80.3	48,667	91.7
TN	522,023	94.3	39,563	86.5	561,586	93.8
TX	1,755,415	91.8	135,281	77.2	1,890,696	90.8
UT	166,418	97.7	10,434	90.9	176,852	97.3
VT	55,574	90.4	2,326	87.8	57,900	90.3
WI	366,034	99.4	31,434	98.2	397,468	99.3
WY	36,122	81.6	3,405	70.0	39,527	80.6