AHRQ Quality Indicators

Patient Safety Indicators (PSI) Benchmark Data Tables, v2026

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Contract No. 47QRAA18D00BQ

2026

Introduction

The data presented in this document are nationwide comparative rates for Version 2026 of the Agency for Healthcare Research and Quality (AHRQ) Quality Indicators (QI) Patient Safety Indicators (PSI) software. The numerators, denominators, and observed rates shown in this document are based on an analysis of discharge data from the 2021, 2022, and 2023 AHRQ Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID).[1]

HCUP is a family of healthcare databases and related software tools and products developed through a Federal-State-Industry partnership. HCUP includes the largest collection of longitudinal hospital care data in the United States, with all-payer, encounter-level information beginning in 1988. The SID contains all-payer, encounter-level information on inpatient discharges, including clinical and resource information typically found on a billing record, such as patient demographics, up to 30 International Classification of Diseases, Tenth Revision, Clinical Modification/Procedural Classification System (ICD-10-CM/PCS) diagnoses and procedures, length of stay, expected payer, admission and discharge dates, and discharge disposition. The HCUP SID encompass about 97 percent of all annual inpatient discharges in the United States.[2]

The analytic dataset used to generate the tables in this document consists of the same hospital discharge records that comprise the reference population for Version 2026 of the AHRQ QI software. This reference population file was limited to community hospitals and also excludes rehabilitation and long-term acute care (LTAC) hospitals. Information on the type of hospital was obtained by the American Hospital Association (AHA) Annual Survey of Hospitals. AHA defines community hospitals as "all non-Federal, short-term, general, and other specialty hospitals, excluding hospital units of institutions." Included among community hospitals are specialty hospitals such as obstetrics-gynecology, ear-nose-throat, orthopedic, and pediatric institutions. Also included are public hospitals and academic medical centers.

There are indicators of the diagnoses being present on admission (POA) in the SID for 44 states and the District of Columbia in 2021 and 2022, and 43 states and the District of Columbia (CA is replicated from 2022) in 2023, while 3 states are excluded due to incomplete information in the POA data element in 2021, 2022 and 2023. Discharges from the participating States are used to develop hospital-level indicators.[3] Edit checks on POA were developed during an HCUP evaluation of POA coding in the 2011 SID at hospitals that were required to report

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[1]Healthcare Cost and Utilization Project (HCUP) 2021, 2022, and 2023 State Inpatient Databases (SID). Agency for Healthcare Research and Quality, Rockville, MD.

[2]Introduction to the HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). January 2026. Agency for Healthcare Research and Quality, Rockville, MD. https://hcup-us.ahrq.gov/db/state/siddist/Introduction_to_SID.pdf.

[3]States with data from 2021 and 2022 included in the reference population for the hospital-level indicators are AK, AR, AZ, CA, CO, DC, FL, GA, HI, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, and WV. States with data from 2023 included in the reference population are the states with 2021 and 2022 data minus VT. Note that data from Wisconsin, Oklahoma, and New Hampshire were not included in the reference population (used to develop PSI 09, PSI 10, PSI 11, PSI 12, PSI 14, PSI 15) due to incomplete procedure dates (PRDAY data element). For v2026, 2023 HCUP data were not available for California at the time of analysis. To preserve comparability across years and reduce the potential bias associated with excluding California entirely, we substituted California's 2022 HCUP data for the missing 2023 data in the v2026 reference population.

POA to the Centers for Medicare & Medicaid Services (CMS, http://www.hcup-us.ahrq.gov/reports/methods/2015-06.pdf). The edits identify general patterns of suspect reporting of POA. The edits do not evaluate whether a valid POA value (e.g., Y or N) is appropriate for the specific diagnosis. There are three hospital-level edit checks:

1. Indication that a hospital has POA reported as Y on all diagnoses on all discharges
2. Indication that a hospital has POA reported as missing on all non-Medicare discharges
3. Indication that a hospital reported POA as missing on all nonexempt diagnoses for 15 percent or more of discharges. The cut-point of 15 percent was determined by subtracting 2 times the standard deviation from the mean of the percentage for hospitals that are required to report POA to CMS.

For details on covariates that are considered as potential risk adjusters, the feature selection and risk adjustment process, and composite indicators, please refer to Quality Indicator Empirical Methods, available on the AHRQ QI website (http://www.qualityindicators.ahrq.gov/modules/Default.aspx).

The QI observed rates for hospital-level indicators are scaled to the rate per 1,000 persons at risk (discharges). Count indicator results are listed as simple counts with no scaling at all. Cell sizes less than 11 are suppressed due to confidentiality; and are designated by an asterisk (*). When only one data point in a series must be suppressed due to cell sizes, another data point is provided as a range to disallow calculation of the masked variable.

Acknowledgements

The AHRQ QI program would like to acknowledge the HCUP Partner organizations that participated in the HCUP SID and SEDD: **Alaska** Department of Health, **Arizona** Department of Health Services, **Arkansas** Department of Health, **California** Department of Health Care Access and Information, **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** Laulima Data Alliance, Hawaii University of Hawaii at Hilo, **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, **Mississippi** State Department of Health, **Missouri** Hospital Industry Data Institute, **Montana** Hospital Association, **Nebraska** Hospital Association, **Nevada** Health Authority, **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 Health Authority, **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 and Human Services, **Vermont** Association of Hospitals and Health Systems, **Virginia** Health Information, **Washington** State Department of Health, **West Virginia** Office of Shared Administration, **Wisconsin** Department of Health Services, and **Wyoming** Hospital Association.

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Table 1. Patient Safety Indicators (PSI) For Overall Population: Hospital-level Indicators

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
PSI 03	Pressure Ulcer Rate	34,703	46,533,402	0.75
PSI 05	Retained Surgical Item or Unretrieved Device Fragment Count	1,476		
PSI 06	Iatrogenic Pneumothorax Rate	11,161	64,078,832	0.17
PSI 07	Central Venous Catheter-Related Blood Stream Infection Rate	5,914	53,795,064	0.11
PSI 08	In-Hospital Fall-Associated Fracture Rate	16,561	66,080,571	0.25
PSI 08_HIP_FX	In-Hospital Fall with Hip Fracture Rate Component	4,581	66,080,571	0.07
PSI 08_OTHER_FX	In-Hospital Fall with Other Fracture Rate Component	11,980	66,080,571	0.18
PSI 09	Postoperative Hemorrhage or Hematoma Rate	26,125	10,958,854	2.38
PSI 10	Postoperative Acute Kidney Injury Requiring Dialysis	6,726	6,452,787	1.04
PSI 11	Postoperative Respiratory Failure Rate	27,487	6,312,342	4.35
PSI 12	Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate	49,357	15,365,527	3.21
PSI 13	Postoperative Sepsis Rate	28,733	6,439,230	4.46
PSI 14	Postoperative Wound Dehiscence Rate	5,581	3,760,532	1.48
PSI 15	Abdominopelvic Accidental Puncture or Laceration Rate	9,750	12,042,683	0.81
PSI 17	Birth Trauma Rate - Injury to Neonate	42,823	9,382,779	4.56
PSI 18	Obstetric Trauma Rate Vaginal Delivery With Instrument	41,585	352,547	117.96
PSI 19	Obstetric Trauma Rate Vaginal Delivery Without Instrument	106,744	6,213,133	17.18

Blank indicates not applicable.

Table 2. PSI 03 - Pressure Ulcer Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	34,703	46,533,402	0.75
Females	13,362	23,125,951	0.58
Males	21,341	23,407,451	0.91
18 to 39 years	2,922	5,404,921	0.54
40 to 64 years	12,978	15,724,960	0.83
65 to 74 years	9,286	10,698,537	0.87
75+ years	9,517	14,704,984	0.65
Private	6,612	9,587,232	0.69
Medicare	19,623	26,413,079	0.74
Medicaid	6,116	7,279,588	0.84
Other	1,385	1,498,103	0.92
Uninsured (self-pay/no charge)	967	1,755,400	0.55

Table 3. PSI 05 - Retained Surgical Item or Unretrieved Device Fragment Count

GROUP	NUMERATOR
Overall	1,476
Females	736
Males	740
0 to 17 years	*****
18 to 39 years	305 -- 314
40 to 64 years	521
65 to 74 years	333
75+ years	314
Private	424
Medicare	661
Medicaid	286
Other	51
Uninsured (self-pay/no charge)	54

Table 4. PSI 06 - Iatrogenic Pneumothorax Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	11,161	64,078,832	0.17
Females	5,883	32,139,305	0.18
Males	5,278	31,939,527	0.17
18 to 39 years	697	8,418,206	0.08
40 to 64 years	3,184	22,333,382	0.14
65 to 74 years	2,858	14,288,402	0.20
75+ years	4,422	19,038,842	0.23
Private	2,165	14,320,410	0.15
Medicare	7,157	34,553,233	0.21
Medicaid	1,209	10,196,157	0.12
Other	310	2,213,450	0.14
Uninsured (self-pay/no charge)	320	2,795,582	0.11

Table 5. PSI 07 - Central Venous Catheter-Related Blood Stream Infection Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	5,914	53,795,064	0.11
Females	2,505	31,504,790	0.08
Males	3,409	22,290,274	0.15
0 to 17 years	*****	101,174	*****
18 to 39 years	1,197 -- 1,206	14,509,656	0.08 -- 0.08
40 to 64 years	2,637	15,750,186	0.17
65 to 74 years	1,288	9,576,818	0.13
75+ years	790	13,857,230	0.06
Private	1,524	14,500,399	0.11
Medicare	2,445	24,098,031	0.10
Medicaid	1,529	11,119,960	0.14
Other	204	1,803,098	0.11
Uninsured (self-pay/no charge)	212	2,273,576	0.09

***** Obscured due to small sample size.
When only one category within a reporting domain variable is masked due to small cell size, the first non-suppressed statistic is shown as a range to prevent inference, since the total is reported.

Table 6. PSI 08 - In-Hospital Fall-Associated Fracture Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	16,561	66,080,571	0.25
Females	9,338	32,648,428	0.29
Males	7,223	33,432,143	0.22
18 to 39 years	960	8,482,578	0.11
40 to 64 years	4,500	23,414,086	0.19
65 to 74 years	4,093	15,059,397	0.27
75+ years	7,008	19,124,510	0.37
Private	2,424	15,054,794	0.16
Medicare	11,152	35,449,249	0.31
Medicaid	1,855	10,505,718	0.18
Other	771	2,247,521	0.34
Uninsured (self-pay/no charge)	359	2,823,289	0.13

Table 7. PSI 08 - In-Hospital Fall Hip Fracture Rate Component

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	4,581	66,080,571	0.07
Females	2,609	32,648,428	0.08
Males	1,972	33,432,143	0.06
18 to 39 years	56	8,482,578	0.01
40 to 64 years	846	23,414,086	0.04
65 to 74 years	1,169	15,059,397	0.08
75+ years	2,510	19,124,510	0.13
Private	434	15,054,794	0.03
Medicare	3,564	35,449,249	0.10
Medicaid	356	10,505,718	0.03
Other	166	2,247,521	0.07
Uninsured (self-pay/no charge)	61	2,823,289	0.02

Table 8. PSI 08 - In-Hospital Fall Other Fracture Rate Component

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	11,980	66,080,571	0.18
Females	6,729	32,648,428	0.21
Males	5,251	33,432,143	0.16
18 to 39 years	904	8,482,578	0.11
40 to 64 years	3,654	23,414,086	0.16
65 to 74 years	2,924	15,059,397	0.19
75+ years	4,498	19,124,510	0.24
Private	1,990	15,054,794	0.13
Medicare	7,588	35,449,249	0.21
Medicaid	1,499	10,505,718	0.14
Other	605	2,247,521	0.27
Uninsured (self-pay/no charge)	298	2,823,289	0.11

Table 9. PSI 09 - Postoperative Hemorrhage or Hematoma Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	26,125	10,958,854	2.38
Females	12,335	5,631,298	2.19
Males	13,790	5,327,556	2.59
18 to 39 years	2,770	1,363,986	2.03
40 to 64 years	11,439	4,707,804	2.43
65 to 74 years	6,901	2,792,703	2.47
75+ years	5,015	2,094,361	2.39
Private	8,567	3,675,971	2.33
Medicare	12,456	4,986,210	2.50
Medicaid	3,545	1,476,926	2.40
Other	877	402,675	2.18
Uninsured (self-pay/no charge)	680	417,072	1.63

Table 10. PSI 10 - Postoperative Acute Kidney Injury Requiring Dialysis

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	6,726	6,452,787	1.04
Females	2,650	3,568,592	0.74
Males	4,076	2,884,195	1.41
18 to 39 years	203	674,765	0.30
40 to 64 years	1,927	2,597,387	0.74
65 to 74 years	2,574	1,851,842	1.39
75+ years	2,022	1,328,793	1.52
Private	1,603	2,328,567	0.69
Medicare	4,378	3,117,859	1.40
Medicaid	466	639,146	0.73
Other	208	253,548	0.82
Uninsured (self-pay/no charge)	71	113,667	0.62

Table 11. PSI 11 - Postoperative Respiratory Failure Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	27,487	6,312,342	4.35
Females	11,756	3,452,033	3.41
Males	15,731	2,860,309	5.50
18 to 39 years	1,103	656,802	1.68
40 to 64 years	8,767	2,543,465	3.45
65 to 74 years	9,621	1,796,634	5.36
75+ years	7,996	1,315,441	6.08
Private	6,214	2,254,115	2.76
Medicare	17,665	3,079,752	5.74
Medicaid	2,432	619,084	3.93
Other	862	248,194	3.47
Uninsured (self-pay/no charge)	314	111,197	2.82

Table 12. PSI 12 - Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	49,357	15,365,527	3.21
Females	23,050	7,651,647	3.01
Males	26,307	7,713,880	3.41
18 to 39 years	3,865	1,759,903	2.20
40 to 64 years	17,105	5,914,422	2.89
65 to 74 years	13,951	3,940,829	3.54
75+ years	14,436	3,750,373	3.85
Private	12,422	4,594,368	2.70
Medicare	27,675	7,713,783	3.59
Medicaid	5,979	1,909,617	3.13
Other	1,884	580,662	3.24
Uninsured (self-pay/no charge)	1,397	567,097	2.46

Table 13. PSI 13 - Postoperative Sepsis Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	28,733	6,439,230	4.46
Females	12,434	3,519,581	3.53
Males	16,299	2,919,649	5.58
18 to 39 years	1,319	654,550	2.02
40 to 64 years	9,609	2,551,485	3.77
65 to 74 years	9,757	1,869,714	5.22
75+ years	8,048	1,363,481	5.90
Private	6,945	2,287,169	3.04
Medicare	17,863	3,174,893	5.63
Medicaid	2,624	615,282	4.26
Other	950	255,672	3.72
Uninsured (self-pay/no charge)	351	106,214	3.30

Table 14. PSI 14 - Postoperative Wound Dehiscence Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	5,581	3,760,532	1.48
Females	1,958	2,087,808	0.94
Males	3,623	1,672,724	2.17
18 to 39 years	580	574,688	1.01
40 to 64 years	2,406	1,601,235	1.50
65 to 74 years	1,561	893,198	1.75
75+ years	1,034	691,411	1.50
Private	1,431	1,343,429	1.07
Medicare	2,794	1,611,400	1.73
Medicaid	947	527,199	1.80
Other	206	126,432	1.63
Uninsured (self-pay/no charge)	203	152,072	1.33

Table 15. PSI 15 - Abdominopelvic Accidental Puncture or Laceration Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	9,750	12,042,683	0.81
Females	5,411	6,259,833	0.86
Males	4,339	5,782,850	0.75
18 to 39 years	850	1,599,113	0.53
40 to 64 years	3,851	4,789,068	0.80
65 to 74 years	2,655	2,849,988	0.93
75+ years	2,394	2,804,514	0.85
Private	2,736	3,553,432	0.77
Medicare	5,127	5,798,371	0.88
Medicaid	1,371	1,814,517	0.76
Other	260	377,734	0.69
Uninsured (self-pay/no charge)	256	498,629	0.51

Table 16. PSI 17 - Birth Trauma Rate - Injury to Neonate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	42,823	9,382,779	4.56
Females	18,739	4,580,179	4.09
Males	24,084	4,802,600	5.01
<1 year	42,823	9,382,779	4.56
Private	20,525	4,475,488	4.59
Medicare	91	21,740	4.19
Medicaid	18,752	4,104,159	4.57
Other	1,156	261,378	4.42
Uninsured (self-pay/no charge)	2,299	520,014	4.42

Table 17. PSI 18 - Obstetric Trauma Rate Vaginal Delivery With Instrument

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	41,585	352,547	117.96
Females	41,583 -- 41,592	352,539 -- 352,548	117.95 -- 117.98
Males	*****	*****	*****
0 to 17 years	567	6,232	90.98
18 to 39 years	39,879	335,208	118.97
40 to 64 years	1,139	11,107	102.55
Private	29,230	201,953	144.74
Medicare	135	1,696	79.60
Medicaid	10,020	128,709	77.85
Other	1,136	10,123	112.22
Uninsured (self-pay/no charge)	1,064	10,066	105.70

***** Obscured due to small sample size.

When only one category within a reporting domain variable is masked due to small cell size, the first non-suppressed statistic is shown as a range to prevent inference, since the total is reported.

Table 18. PSI 19 - Obstetric Trauma Rate Vaginal Delivery Without Instrument

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 DISCHARGES
Overall	106,744	6,213,133	17.18
Females	106,742 -- 106,751	6,213,060	17.18 -- 17.18
Males	*****	73	*****
0 to 17 years	1,298	78,912	16.45
18 to 39 years	103,235	5,950,890	17.35
40 to 64 years	2,211	183,331	12.06
Private	74,675	3,240,433	23.04
Medicare	334	29,715	11.24
Medicaid	25,896	2,592,545	9.99
Other	3,192	183,705	17.38
Uninsured (self-pay/no charge)	2,647	166,735	15.88

***** Obscured due to small sample size.

When only one category within a reporting domain variable is masked due to small cell size, the first non-suppressed statistic is shown as a range to prevent inference, since the total is reported.