



# PATIENT SAFETY INDICATORS™ v6.0 ICD-9-CM BENCHMARK DATA TABLES

**Prepared for:**

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## Introduction

The data presented in this document are nationwide comparative rates for Version 6.0 of 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 34 States from the 2013 AHRQ Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) that provided Present on Admission (POA) and PRDAY data elements. This is described in detail below. HCUP is a family of health care databases and related software tools and products developed through a Federal-State-industry partnership<sup>2</sup>, 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, Ninth Revision, Clinical Modification diagnoses and procedures, length of stay, expected payer, admission and discharge dates, and discharge disposition. In 2013, the HCUP databases represented more than 97 percent of all annual discharges in the United States.

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 6.0 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

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<sup>1</sup> States in the POA reference population for 2013 include: AR, AZ, CA, CO, FL, GA, HI, IA, IL, IN, KS, KY, MD, MI, MN, MT, NC, ND, NE, NJ, NM, NV, NY, OH, OR, PA, SC, SD, TN, TX, VA, VT, WA, WI.

<sup>2</sup> Reference: Healthcare Cost and Utilization Project (HCUP) 2013 State Inpatient Databases (SID). Agency for Healthcare Research and Quality, Rockville, MD.

<sup>3</sup> The AHRQ QI program would like to acknowledge the HCUP Partner organizations that participated in the HCUP SID: **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, **Florida** Agency for Health Care Administration, **Georgia** Hospital Association, **Hawaii** Health Information Corporation, **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 and Hospitals, **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** Department of Health, **Missouri** Hospital Industry Data Institute, **Montana** MHA - An Association of Montana Health Care Providers, **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** Health Policy and Research, **Pennsylvania** Health Care Cost Containment Council, **Rhode Island** Department of Health, **South Carolina** Budget & Control Board, **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** Health Care Authority, **Wisconsin** Department of Health Services, **Wyoming** Hospital Association.

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.

The 2013 HCUP SID includes information on all inpatient discharges from hospitals in 40 participating States. In 2013, 34 of the SID include indicators of the diagnoses being present on admission (POA) and included the PRDAY data element. Edit checks on POA were developed during an HCUP evaluation of POA coding in the 2011 SID at hospitals that were required to report POA to CMS. 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 2 times the standard deviation plus the mean of the percentage for hospitals that are required to report POA to CMS.

Additional information on the reference population and the risk adjustment process may be found in Quality Indicator Empirical Methods, available on the AHRQ QI™ website (<http://www.qualityindicators.ahrq.gov/modules/Default.aspx>).

The QI observed rates for provider-level indicators are scaled to the rate per 1,000 persons at risk and the area-level indicators are per 100,000 population. Volume and 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 datapoint in a series must be suppressed due to cell sizes, another datapoint is provided as a range to disallow calculation of the masked variable. In some cases, numerators, denominators or rates are not applicable for the category due to the exclusion criteria in the specification of the indicator, and are designated by dashes (--).

Area level denominators use the 2013 population estimates based U.S. Census intercensal and postcensal estimates of county-level population.

## Acknowledgments

The AHRQ QI program would like to acknowledge the HCUP Partner organizations that participated in the HCUP SID: **Arizona** Department of Health Services, **Arkansas** Department of Health, **California** Office of Statewide Health Planning and Development, **Colorado** Hospital Association, **Connecticut** Hospital Association, **Florida** Agency for Health Care Administration, **Georgia** Hospital Association, **Hawaii** Health Information Corporation, **Illinois** Department of Public Health, **Indiana** Hospital Association, **Iowa** Hospital Association, **Kansas** Hospital Association, **Kentucky** Cabinet for Health and Family Services, **Maryland** Health Services Cost Review Commission, **Michigan** Health & Hospital Association, **Minnesota** Hospital Association (provides data for **Minnesota** and **North Dakota**), **Mississippi** Department of Health, **Missouri** Hospital Industry Data Institute, **Montana** MHA - An Association of **Montana** Health Care Providers, **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** Health Policy and Research, **Pennsylvania** Health Care Cost Containment Council, **Rhode Island** Department of Health, **South Carolina** Budget & Control Board, **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** Health Care Authority, **Wisconsin** Department of Health Services, **Wyoming** Hospital Association.

**Table 1. Patient Safety Provider-Level Indicators for Overall Population**

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1000 (=OBSERVED RATEx1,000)
	<b>PROVIDER-LEVEL INDICATORS</b>			
PSI 02	Death Rate in Low-Mortality Diagnosis Related Groups (DRGs)	1,834	5,311,023	0.35
PSI 03	Pressure Ulcer Rate	3,001	10,933,921	0.27
PSI 04	Death Rate among Surgical Inpatients with Serious Treatable Complications	22,971	191,063	120.23
PSI 04A	Death Rate among Surgical Inpatients with Serious Treatable Complications - Stratum A	1,142	23,398	48.81
PSI 04B	Death Rate among Surgical Inpatients with Serious Treatable Complications - Stratum B	6,415	85,904	74.68
PSI 04C	Death Rate among Surgical Inpatients with Serious Treatable Complications - Stratum C	5,605	29,954	187.12
PSI 04D	Death Rate among Surgical Inpatients with Serious Treatable Complications - Stratum D	8,438	24,674	341.98
PSI 04E	Death Rate among Surgical Inpatients with Serious Treatable Complications - Stratum E	1,371	27,133	50.53
PSI 05	Retained Surgical Item or Unretrieved Device Fragment Count	852	--	--
PSI 06	Iatrogenic Pneumothorax Rate	5,929	18,712,191	0.32
PSI 07	Central Venous Catheter-Related Blood Stream Infection Rate	2,342	15,204,849	0.15
PSI 08	Postoperative Hip Fracture Rate	1,070	14,084,514	0.08
PSI 09	Perioperative Hemorrhage or Hematoma Rate	23,882	5,284,937	4.52
PSI 10	Postoperative Acute Kidney Injury Requiring Dialysis	2,159	3,010,205	0.72
PSI 11	Postoperative Respiratory Failure Rate	23,250	2,547,437	9.13
PSI 12	Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate	20,831	5,595,134	3.72
PSI 13	Postoperative Sepsis Rate	12,398	2,909,020	4.26
PSI 14	Postoperative Wound Dehiscence Rate	1,402	821,047	1.71
PSI 15	Accidental Puncture or Laceration Rate	751	1,031,768	0.73
PSI 16	Transfusion Reaction Count	38	--	--
PSI 18	Obstetric Trauma Rate – Vaginal Delivery With Instrument	16,741	130,922	127.87
PSI 19	Obstetric Trauma Rate – Vaginal Delivery Without Instrument	36,536	1,829,597	19.97

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 2. Patient Safety Area-Level Indicators for Overall Population**

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATEx100,000)
	<b>AREA-LEVEL INDICATORS **</b>			
PSI 21	Retained Surgical Item or Unretrieved Device Fragment Rate			
PSI 22	Iatrogenic Pneumothorax Rate			
PSI 23	Central Venous Catheter-Related Blood Stream Infection Rate			
PSI 24	Postoperative Wound Dehiscence Rate			
PSI 25	Accidental Puncture or Laceration Rate			
PSI 26	Transfusion Reaction Rate			
PSI 27	Perioperative Hemorrhage or Hematoma Rate			

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

\*\* The AHRQ QI Program discovered that the QI Population Files (v7.0 1995-2017 population file and prior) contained some inaccurate county-level age- sex- and race-specific county population estimates beginning with the 2012 calendar year. The QI population file has been updated and a new version, v2018, is now available at: [http://www.qualityindicators.ahrq.gov/Downloads/Software/SAS/V2018/1995-2017\\_Population\\_Files\\_V2018.zip](http://www.qualityindicators.ahrq.gov/Downloads/Software/SAS/V2018/1995-2017_Population_Files_V2018.zip). Because of the inaccuracies in the population data, the numerator, denominator and observed rates have been removed from the table. For further details, please refer to [http://www.qualityindicators.ahrq.gov//News/AHRQ\\_QIs\\_Population\\_File\\_Issue\\_and\\_Resolution.pdf](http://www.qualityindicators.ahrq.gov//News/AHRQ_QIs_Population_File_Issue_and_Resolution.pdf)

**Table 3. PSI 02 - Death Rate in Low-Mortality Diagnosis Related Groups (DRGs)**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	1,834	5,311,023	0.35
Females	1,082	4,416,411	0.24
Males	752	894,612	0.84
0 to 17 years	****	66,476	****
18 to 39 years	262 -- 271 †	3,606,846	0.07 -- 0.08 †
40 to 64 years	299	1,043,982	0.29
65 to 74 years	243	265,798	0.91
75+ years	1,021	327,921	3.11
Private	269	2,181,770	0.12
Medicare	1,190	836,551	1.42
Medicaid	257	1,790,311	0.14
Other	48	206,547	0.23
Uninsured (self-pay/no charge)	70	295,844	0.24

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 4. PSI 03 – Pressure Ulcer Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	3,001	10,933,921	0.27
Females	1,314	5,883,541	0.22
Males	1,687	5,050,380	0.33
0 to 17 years	--	--	--
18 to 39 years	185	1,251,396	0.15
40 to 64 years	934	4,017,535	0.23
65 to 74 years	727	2,217,828	0.33
75+ years	1,155	3,447,162	0.34
Private	472	2,429,302	0.19
Medicare	1,934	6,263,846	0.31
Medicaid	394	1,212,278	0.33
Other	98	367,498	0.27
Uninsured (self-pay/no charge)	103	660,997	0.16

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 5. PSI 04 – Death Rate among Surgical Inpatients with Serious Treatable Complications**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	22,971	191,063	120.23
Females	9,777	90,758	107.73
Males	13,194	100,305	131.54
0 to 17 years	****	53	****
18 to 39 years	1,100 -- 1,109 †	16,901	65.08 -- 65.62 †
40 to 64 years	7,441	70,902	104.95
65 to 74 years	6,018	48,275	124.66



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75+ years	8,409	54,932	153.08
Private	4,369	47,461	92.05
Medicare	14,691	108,927	134.87
Medicaid	2,032	19,241	105.61
Other	645	6,313	102.17
Uninsured (self-pay/no charge)	1,234	9,121	135.29

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 6. PSI 04A – Death Rate among Surgical Inpatients with Serious Treatable Complications – Stratum A**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	1,142	23,398	48.81
Females	540	11,896	45.39
Males	602	11,502	52.34
0 to 17 years	*****	*****	*****
18 to 39 years	42 -- 51 †	2,191 -- 2,200 †	19.17 -- 23.18 †
40 to 64 years	402	9,457	42.51
65 to 74 years	304	6,024	50.46
75+ years	386	5,718	67.51
Private	267	7,163	37.27
Medicare	688	12,198	56.40
Medicaid	90	2,070	43.48
Other	31	867	35.76
Uninsured (self-pay/no charge)	66	1,100	60.00

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 7. PSI 04B – Death Rate among Surgical Inpatients with Serious Treatable Complications – Stratum B**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	6,415	85,904	74.68
Females	2,543	39,489	64.40
Males	3,872	46,415	83.42
0 to 17 years	*****	35	*****
18 to 39 years	304 -- 313 †	7,812	38.91 -- 40.07 †
40 to 64 years	1,848	30,148	61.30
65 to 74 years	1,556	20,856	74.61
75+ years	2,705	27,053	99.99
Private	1,181	20,383	57.94
Medicare	4,172	49,497	84.29
Medicaid	505	8,658	58.33
Other	196	2,914	67.26
Uninsured (self-pay/no charge)	361	4,452	81.09

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 8. PSI 04C – Death Rate among Surgical Inpatients with Serious Treatable Complications – Stratum C**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	5,605	29,954	187.12
Females	2,314	13,568	170.55
Males	3,291	16,386	200.84
0 to 17 years	*****	*****	*****
18 to 39 years	170 -- 179 †	2,542 -- 2,551 †	66.88 -- 70.17 †
40 to 64 years	1,639	11,270	145.43
65 to 74 years	1,568	7,561	207.38
75+ years	2,225	8,570	259.63
Private	971	6,972	139.27
Medicare	3,762	17,085	220.19
Medicaid	467	3,410	136.95
Other	162	1,046	154.88
Uninsured (self-pay/no charge)	243	1,441	168.63

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 9. PSI 04D – Death Rate among Surgical Inpatients with Serious Treatable Complications – Stratum D**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	8,438	24,674	341.98
Females	3,840	12,742	301.37
Males	4,598	11,932	385.35
0 to 17 years	*****	11	*****
18 to 39 years	543 -- 552 †	2,845	190.86 -- 194.02 †
40 to 64 years	3,048	9,349	326.02
65 to 74 years	2,204	6,249	352.70
75+ years	2,636	6,220	423.79
Private	1,699	6,208	273.68
Medicare	5,189	13,838	374.98
Medicaid	852	2,862	297.69
Other	235	649	362.10
Uninsured (self-pay/no charge)	463	1,117	414.50

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 10. PSI 04E – Death Rate among Surgical Inpatients with Serious Treatable Complications – Stratum E**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	1,371	27,133	50.53
Females	540	13,063	41.34
Males	831	14,070	59.06
0 to 17 years	*****	*****	*****

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18 to 39 years	20 -- 29 †	1,497 -- 1,506 †	13.36 -- 19.26 †
40 to 64 years	504	10,678	47.20
65 to 74 years	386	7,585	50.89
75+ years	457	7,371	62.00
Private	251	6,735	37.27
Medicare	880	16,309	53.96
Medicaid	118	2,241	52.66
Other	21	837	25.09
Uninsured (self-pay/no charge)	101	1,011	99.90

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 11. PSI 05 – Retained Surgical Item or Unretrieved Device Fragment Count**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	852	.	.
Females	461	.	.
Males	391	.	.
0 to 17 years	--	.	.
18 to 39 years	187	.	.
40 to 64 years	329	.	.
65 to 74 years	171	.	.
75+ years	165	.	.
Private	299	.	.
Medicare	353	.	.
Medicaid	125	.	.
Other	44	.	.
Uninsured (self-pay/no charge)	31	.	.

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 12. PSI 06 – Iatrogenic Pneumothorax Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	5,929	18,712,191	0.32
Females	3,378	9,914,996	0.34
Males	2,551	8,797,195	0.29
0 to 17 years	--	--	--
18 to 39 years	480	2,523,401	0.19
40 to 64 years	1,795	7,241,801	0.25
65 to 74 years	1,265	3,648,928	0.35
75+ years	2,389	5,298,061	0.45
Private	1,185	4,592,474	0.26
Medicare	3,758	10,001,859	0.38
Medicaid	589	2,131,245	0.28
Other	143	695,049	0.21
Uninsured (self-pay/no charge)	254	1,291,564	0.20

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 13. PSI 07 – Central Venous Catheter-Related Blood Stream Infection Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	2,342	15,204,849	0.15
Females	1,112	9,475,334	0.12
Males	1,230	5,729,515	0.21
0 to 17 years	*****	59,710	*****
18 to 39 years	482 -- 491 †	4,417,624	0.11 -- 0.11 †
40 to 64 years	1,026	4,893,513	0.21
65 to 74 years	425	2,298,185	0.18
75+ years	406	3,535,817	0.11
Private	460	4,406,632	0.10
Medicare	1,110	6,524,556	0.17
Medicaid	503	2,700,245	0.19
Other	77	571,135	0.13
Uninsured (self-pay/no charge)	192	1,002,281	0.19

-- Indicates Not Applicable

\*\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 14. PSI 08 – Postoperative Hip Fracture Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	1,070	14,084,514	0.08
Females	641	7,475,434	0.09
Males	429	6,609,080	0.06
0 to 17 years	--	--	--
18 to 39 years	*****	1,781,524	*****
40 to 64 years	155 -- 164 †	5,377,252	0.03 -- 0.03 †
65 to 74 years	231	2,745,111	0.08
75+ years	668	4,180,627	0.16
Private	79 -- 88 †	3,339,329	0.02 -- 0.03 †
Medicare	893	7,730,281	0.12
Medicaid	64	1,572,322	0.04
Other	22	453,960	0.05
Uninsured (self-pay/no charge)	*****	988,622	*****

-- Indicates Not Applicable

\*\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 15. PSI 09 – Perioperative Hemorrhage or Hematoma Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	23,882	5,284,937	4.52
Females	11,593	2,817,021	4.12
Males	12,289	2,467,916	4.98
0 to 17 years	--	--	--
18 to 39 years	2,563	629,426	4.07
40 to 64 years	10,388	2,328,413	4.46
65 to 74 years	5,623	1,234,051	4.56
75+ years	5,308	1,093,047	4.86
Private	7,919	1,882,824	4.21

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Medicare	11,779	2,468,188	4.77
Medicaid	2,277	421,866	5.40
Other	834	231,890	3.60
Uninsured (self-pay/no charge)	1,073	280,169	3.83

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 16. PSI 10 – Postoperative Acute Kidney Injury Requiring Dialysis**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	2,159	3,010,205	0.72
Females	797	1,707,733	0.47
Males	1,362	1,302,472	1.05
0 to 17 years	--	--	--
18 to 39 years	63	264,597	0.24
40 to 64 years	760	1,399,599	0.54
65 to 74 years	711	809,331	0.88
75+ years	625	536,678	1.16
Private	550	1,233,465	0.45
Medicare	1,377	1,405,262	0.98
Medicaid	138	176,937	0.78
Other	62	126,339	0.49
Uninsured (self-pay/no charge)	32	68,202	0.47

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 17. PSI 11 – Postoperative Respiratory Failure Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	23,250	2,547,437	9.13
Females	12,378	1,525,744	8.11
Males	10,872	1,021,693	10.64
0 to 17 years	--	--	--
18 to 39 years	1,137	245,415	4.63
40 to 64 years	9,203	1,231,421	7.47
65 to 74 years	7,116	663,205	10.73
75+ years	5,794	407,396	14.22
Private	6,079	1,100,946	5.52
Medicare	14,313	1,119,886	12.78
Medicaid	1,723	152,883	11.27
Other	697	115,535	6.03
Uninsured (self-pay/no charge)	438	58,187	7.53

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 18. PSI 12 – Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	20,831	5,595,134	3.72
Females	10,448	2,955,683	3.53
Males	10,383	2,639,451	3.93
0 to 17 years	--	--	--
18 to 39 years	1,426	655,255	2.18
40 to 64 years	7,960	2,442,667	3.26
65 to 74 years	5,508	1,312,667	4.20
75+ years	5,937	1,184,545	5.01
Private	5,741	1,961,472	2.93
Medicare	11,703	2,651,048	4.41
Medicaid	1,770	445,584	3.97
Other	730	242,147	3.01
Uninsured (self-pay/no charge)	887	294,883	3.01

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 19. PSI 13 – Postoperative Sepsis Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	12,398	2,909,020	4.26
Females	5,468	1,649,230	3.32
Males	6,930	1,259,790	5.50
0 to 17 years	--	--	--
18 to 39 years	544	249,873	2.18
40 to 64 years	4,522	1,344,254	3.36
65 to 74 years	3,799	789,674	4.81
75+ years	3,533	525,219	6.73
Private	3,060	1,190,753	2.57
Medicare	7,854	1,364,844	5.75
Medicaid	904	168,002	5.38
Other	345	121,840	2.83
Uninsured (self-pay/no charge)	235	63,581	3.70

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 20. PSI 14 – Postoperative Wound Dehiscence Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	1,402	821,047	1.71
Females	453	495,096	0.91
Males	949	325,951	2.91
0 to 17 years	--	--	--
18 to 39 years	117	117,358	1.00
40 to 64 years	602	402,132	1.50
65 to 74 years	362	163,277	2.22
75+ years	321	138,280	2.32
Private	363	343,602	1.06
Medicare	730	318,718	2.29

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Medicaid	169	79,051	2.14
Other	60	30,095	1.99
Uninsured (self-pay/no charge)	80	49,581	1.61

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 21. PSI 15 – Accidental Puncture or Laceration Rate**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	751	1,031,768	0.73
Females	382	613,398	0.62
Males	369	418,370	0.88
0 to 17 years	--	--	--
18 to 39 years	93	154,286	0.60
40 to 64 years	306	514,948	0.59
65 to 74 years	188	202,724	0.93
75+ years	164	159,810	1.03
Private	210	442,286	0.47
Medicare	404	397,614	1.02
Medicaid	71	96,259	0.74
Other	32	36,520	0.88
Uninsured (self-pay/no charge)	34	59,089	0.58

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 22. PSI 16 – Transfusion Reaction Count**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	38	.	.
Females	21	.	.
Males	17	.	.
0 to 17 years	--	.	.
18 to 39 years	13	.	.
40 to 64 years	17	.	.
65 to 74 years	****	.	.
75+ years	****	.	.
Private	8 -- 17 †	.	.
Medicare	11	.	.
Medicaid	12	.	.
Other	--	.	.
Uninsured (self-pay/no charge)	****	.	.

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 23. PSI 18 – Obstetric Trauma Rate – Vaginal Delivery With Instrument**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	16,741	130,922	127.87
Females	16,741	130,922	127.87
Males	--	--	--
0 to 17 years	482	4,367	110.37

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18 to 39 years	15,942	123,341	129.25
40 to 64 years	317	3,214	98.63
65 to 74 years	--	--	--
75+ years	--	--	--
Private	11,019	70,977	155.25
Medicare	57	732	77.87
Medicaid	4,674	51,091	91.48
Other	483	3,987	121.14
Uninsured (self-pay/no charge)	508	4,135	122.85

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

**Table 24. PSI 19 – Obstetric Trauma Rate – Vaginal Delivery Without Instrument**

INDICATOR	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATEx1,000)
Overall	36,536	1,829,597	19.97
Females	36,536	1,829,597	19.97
Males	--	--	--
0 to 17 years	997	43,830	22.75
18 to 39 years	34,973	1,744,969	20.04
40 to 64 years	566	40,798	13.87
65 to 74 years	--	--	--
75+ years	--	--	--
Private	23,877	896,304	26.64
Medicare	150	11,728	12.79
Medicaid	10,280	810,051	12.69
Other	1,168	57,125	20.45
Uninsured (self-pay/no charge)	1,061	54,389	19.51

-- Indicates Not Applicable

\*\*\*\* Obscured due to small sample size

† Range provided to preserve small sample size masking

## Area-level Indicators

The AHRQ QI Program discovered that the QI Population Files (v7.0 1995-2017 population file and prior) contained some inaccurate county-level age- sex- and race-specific county population estimates beginning with the 2012 calendar year. The QI population file has been updated and a new version, v2018, is now available at:

[http://www.qualityindicators.ahrq.gov/Downloads/Software/SAS/V2018/1995-2017\\_Population\\_Files\\_V2018.zip](http://www.qualityindicators.ahrq.gov/Downloads/Software/SAS/V2018/1995-2017_Population_Files_V2018.zip). Because of the inaccuracies in the population data, the observed rates for the area level indicators were not accurate. For further details, please refer to [http://www.qualityindicators.ahrq.gov/News/AHRQ\\_QIs\\_Population\\_File\\_Issue\\_and\\_Resolution.pdf](http://www.qualityindicators.ahrq.gov/News/AHRQ_QIs_Population_File_Issue_and_Resolution.pdf). All tables that relate to area level indicators have been removed from this document. Please refer to Table 2 above for a list of Area level indicators that were impacted.