



PREVENTION QUALITY INDICATORS™ v5.0 Benchmark Data Tables

Prepared for:

Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Gaither Road
Rockville, MD 20850
<http://www.qualityindicators.ahrq.gov>

Contract No. HHSA290201200001C

Prepared by:



Truven Health Analytics
5425 Hollister Ave, Suite 140
Santa Barbara, CA 93111

March 2015

Contents

Introduction.....	1
Table 1. Prevention Quality Indicators for Overall Population	2
Table 2. PQI #1 – Diabetes Short-Term Complications Admission Rate	3
Table 3. PQI #1 – Diabetes Short-Term Complications Admission Rate*	3
Table 4. PQI #2 – Perforated Appendix Admission Rate.....	3
Table 5. PQI #3 – Diabetes Long-Term Complications Admission Rate.....	3
Table 6. PQI #3 – Diabetes Long-Term Complications Admission Rate*.....	4
Table 7. PQI #5 – Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	4
Table 8. PQI #7 – Hypertension Admission Rate.....	4
Table 9. PQI #8 – Heart Failure Admission Rate	4
Table 10. PQI #10 – Dehydration Admission Rate	5
Table 11. PQI #11 – Bacterial Pneumonia Admission Rate.....	5
Table 12. PQI #12 – Urinary Tract Infection Admission Rate.....	5
Table 13. PQI #13 – Angina Without Procedure Admission Rate	5
Table 14. PQI #14 – Uncontrolled Diabetes Admission Rate	6
Table 15. PQI #14 – Uncontrolled Diabetes Admission Rate*	6
Table 16. PQI #15 – Asthma in Younger Adults Admission Rate.....	6
Table 17. PQI #16 – Lower-Extremity Amputation Among Patients With Diabetes Rate	6
Table 18. PQI #16 – Lower-Extremity Amputation Among Patients With Diabetes Rate* 7	
Table 19. PQI #90 – Prevention Quality Overall Composite*	7
Table 20. PQI #91 – Prevention Quality Acute Composite*	7
Table 21. PQI #92 – Prevention Quality Chronic Composite*	7

Introduction

The data presented in this document are nationwide comparative rates for the Agency for Healthcare Research and Quality (AHRQ) Quality Indicators™ QIs. The rates are based on analysis of 45 States from the 2012 AHRQ Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID)¹. HCUP is a family of health care databases and related software tools and products developed through a Federal-State-industry partnership². 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 2012, the HCUP databases represented more than 95 percent of all annual discharges in the United States. The dataset analyzed to generate the tables in this document consists of the same hospital discharge records that comprise the reference population for Version the 5.0 Version of the AHRQ QI software.

With Version 5.0 of the software, the indicators are no longer calculated using a software option that models the effect of missing present on admission data. 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. Volume and count indicator results are listed as simple counts with no scaling at all. Rates for any cells with 1 to 10 cases are not presented.

The tables below are calculated for the overall reference population.

1 The states included in the analysis are Alaska, Arkansas, Arizona, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Iowa, Illinois, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Maine, Michigan, Minnesota, Missouri, Montana, North Carolina, Nebraska, New Jersey, New Mexico, Nevada, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Vermont, Washington, Wisconsin, West Virginia, and Wyoming.

2 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

Table 1. Prevention Quality Indicators for Overall Population

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
PQI #1	Diabetes Short-Term Complications Admission Rate	128,493	201,198,832	63.86
PQI #1*	Diabetes Short-Term Complications Admission Rate	116,538	12,864,676	905.88
PQI #2	Perforated Appendix Admission Rate	47,320	146,309	32342.5
PQI #3	Diabetes Long-Term Complications Admission Rate	212,706	201,199,181	105.72
PQI #3*	Diabetes Long-Term Complications Admission Rate	132,458	12,864,676	1029.63
PQI #5	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	617,124	124,494,178	495.71
PQI #7	Hypertension Admission Rate	109,186	201,199,069	54.27
PQI #8	Heart Failure Admission Rate	646,642	201,209,273	321.38
PQI #10	Dehydration Admission Rate	273,038	201,200,942	135.7
PQI #11	Bacterial Pneumonia Admission Rate	499,381	201,206,599	248.19
PQI #12	Urinary Tract Infection Admission Rate	336,026	201,202,234	167.01
PQI #13	Angina Without Procedure Admission Rate	26,842	201,198,834	13.34
PQI #14	Uncontrolled Diabetes Admission Rate	31,637	201,198,765	15.72
PQI #14*	Uncontrolled Diabetes Admission Rate	21,826	12,864,676	169.66
PQI #15	Asthma in Younger Adults Admission Rate	35,304	76,709,786	46.02
PQI #16	Lower - Extremity Amputation Among Patients With Diabetes Rate	31,192	201,198,821	15.5
PQI #16*	Lower - Extremity Amputation Among Patients With Diabetes Rate	16,466	12,864,676	127.99
PQI #90	Prevention Quality Overall Composite	2,933,373	201,260,416	1457.5
PQI #91	Prevention Quality Acute Composite	1,108,445	201,218,931	550.87
PQI #92	Prevention Quality Chronic Composite	1,824,998	201,226,111	906.94

*Rate computed among diabetics

Table 2. PQI #1 – Diabetes Short-Term Complications Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	128,493	201,198,832	63.86
Females	62,675	103,365,054	60.63
Males	65,818	97,833,778	67.28
18 to 39 years	60,280	76,709,803	78.58
40 to 64 years	54,367	88,042,834	61.75
65 to 74 years	8,133	20,256,419	40.15
75+ years	5,713	16,189,776	35.29

Table 3. PQI #1 – Diabetes Short-Term Complications Admission Rate*

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
18 to 64 years	116,538	12,864,676	905.88
65 to 74 years	8,134	4,474,608	181.78
75+ years	5,713	3,420,144	167.04

*(Denominator is the diabetic population)

Table 4. PQI #2 – Perforated Appendix Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 1,000 (=OBSERVED RATE*1,000)
Overall	47,320	146,309	323.43
Females	20,751	69,613	298.09
Males	26,569	76,696	346.42
18 to 39 years	14,144	67,862	208.42
40 to 64 years	22,368	57,665	387.9
65 to 74 years	6,236	12,337	505.47
75+ years	4,572	8,445	541.39

Note: Denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.
Rate is scaled to per 1,000 persons at risk.

Table 5. PQI #3 – Diabetes Long-Term Complications Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	212,706	201,199,181	105.72
Females	93,378	103,365,168	90.34
Males	119,328	97,834,013	121.97
18 to 39 years	22,598	76,709,787	29.46
40 to 64 years	108,404	88,042,891	123.13
65 to 74 years	40,716	20,256,495	201
75+ years	40,988	16,190,008	253.17

Table 6. PQI #3 – Diabetes Long-Term Complications Admission Rate*

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE _x *100,000)
18 to 64 years	132,458	12,864,676	1029.63
65 to 74 years	40,716	4,474,608	909.93
75+ years	40,989	3,420,144	1198.46

*(Denominator is the diabetic population)

Table 7. PQI #5 – Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE _x *100,000)
Overall	617,124	124,494,178	495.71
Females	372,617	65,473,139	569.11
Males	244,507	59,021,039	414.27
40 to 64 years	263,155	88,043,141	298.89
65 to 74 years	162,495	20,257,748	802.14
75+ years	191,474	16,193,289	1182.43

Table 8. PQI #7 – Hypertension Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE _x *100,000)
Overall	109,186	201,199,069	54.27
Females	65,018	103,365,245	62.9
Males	44,168	97,833,824	45.15
18 to 39 years	9,206	76,709,774	12
40 to 64 years	51,430	88,042,826	58.41
65 to 74 years	18,492	20,256,439	91.29
75+ years	30,058	16,190,030	185.66

Table 9. PQI #8 – Heart Failure Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE _x *100,000)
Overall	646,642	201,209,273	321.38
Females	323,470	103,370,518	312.92
Males	323,172	97,838,755	330.31
18 to 39 years	14,195	76,709,784	18.5
40 to 64 years	164,409	88,042,969	186.74
65 to 74 years	132,728	20,257,279	655.21
75+ years	335,310	16,199,241	2069.91

Table 10. PQI #10 – Dehydration Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	273,038	201,200,942	135.7
Females	155,329	103,366,249	150.27
Males	117,709	97,834,693	120.31
18 to 39 years	21,348	76,709,791	27.83
40 to 64 years	77,499	88,042,881	88.02
65 to 74 years	52,889	20,256,601	261.1
75+ years	121,302	16,191,669	749.16

Table 11. PQI #11 – Bacterial Pneumonia Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	499,381	201,206,599	248.19
Females	267,512	103,368,935	258.79
Males	231,869	97,837,664	236.99
18 to 39 years	34,126	76,709,791	44.49
40 to 64 years	143,798	88,043,064	163.33
65 to 74 years	97,036	20,257,227	479.02
75+ years	224,421	16,196,517	1385.61

Table 12. PQI #12 – Urinary Tract Infection Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	336,026	201,202,234	167.01
Females	246,153	103,367,663	238.13
Males	89,873	97,834,571	91.86
18 to 39 years	36,969	76,709,791	48.19
40 to 64 years	69,457	88,042,846	78.89
65 to 74 years	52,527	20,256,598	259.31
75+ years	177,073	16,192,999	1093.52

Table 13. PQI #13 – Angina Without Procedure Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	26,842	201,198,834	13.34
Females	13,939	103,365,067	13.49
Males	12,903	97,833,767	13.19
18 to 39 years	1,022	76,709,774	1.33
40 to 64 years	14,030	88,042,810	15.94
65 to 74 years	5,406	20,256,417	26.69
75+ years	6,384	16,189,833	39.43

Table 14. PQI #14 – Uncontrolled Diabetes Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	31,637	201,198,765	15.72
Females	15,863	103,365,029	15.35
Males	15,774	97,833,736	16.12
18 to 39 years	5,199	76,709,777	6.78
40 to 64 years	16,377	88,042,803	18.6
65 to 74 years	4,988	20,256,405	24.62
75+ years	5,073	16,189,780	31.33

Table 15. PQI #14 – Uncontrolled Diabetes Admission Rate*

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
18 to 64 years	21,826	12,864,676	169.66
65 to 74 years	4,988	4,474,608	111.47
75+ years	5,073	3,420,144	148.33

*(Denominator is the diabetic population)

Table 16. PQI #15 – Asthma in Younger Adults Admission Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATEx*100,000)
Overall	35,304	76,709,786	46.02
Females	23,629	37,894,641	62.35
Males	11,675	38,815,145	30.08
18 to 39 years	35,304	76,709,786	46.02

Table 17. PQI #16 – Lower-Extremity Amputation Among Patients With Diabetes Rate

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATEx*100,000)
Overall	31,192	201,198,821	15.5
Females	10,248	103,365,046	9.91
Males	20,944	97,833,775	21.41
18 to 39 years	945	76,709,774	1.23
40 to 64 years	15,453	88,042,811	17.55
65 to 74 years	7,936	20,256,424	39.18
75+ years	6,858	16,189,812	42.36

Table 18. PQI #16 – Lower-Extremity Amputation Among Patients With Diabetes Rate*

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
18 to 64 years	16,466	12,864,676	127.99
65 to 74 years	7,936	4,474,608	177.36
75+ years	6,858	3,420,144	200.52

*(Denominator is the diabetic population)

Table 19. PQI #90 – Prevention Quality Overall Composite*

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	2,933,373	201,260,416	1457.5
Females	1,645,501	103,399,684	1591.4
Males	1,287,872	97,860,732	1316.03
18 to 39 years	240,658	76,709,943	313.72
40 to 64 years	970,824	88,048,025	1102.61
65 to 74 years	579,920	20,268,691	2861.16
75+ years	1,141,971	16,233,757	7034.55

*(PQI 1, 3, 5, 7, 8, 10, 11, 12, 13, 14, 15 and 16)

Table 20. PQI #91 – Prevention Quality Acute Composite*

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	1,108,445	201,218,931	550.87
Females	668,994	103,377,067	647.14
Males	439,451	97,841,864	449.14
18 to 39 years	92,443	76,709,831	120.51
40 to 64 years	290,754	88,043,470	330.24
65 to 74 years	202,452	20,258,880	999.32
75+ years	522,796	16,206,750	3225.79

*(PQI 10, 11 and 12)

Table 21. PQI #92 – Prevention Quality Chronic Composite*

GROUP	NUMERATOR	DENOMINATOR	OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000)
Overall	1,824,998	201,226,111	906.94
Females	976,534	103,379,506	944.61
Males	848,464	97,846,605	867.14
18 to 39 years	148,215	76,709,850	193.22
40 to 64 years	680,094	88,044,625	772.44
65 to 74 years	377,483	20,262,174	1862.99
75+ years	619,206	16,209,462	3820.03

*(PQI 1, 3, 5, 7, 8, 13, 14, 15 and 16)