

Prevention Quality Indicator Comparative Data: Based on the 2008 Nationwide Inpatient Sample (NIS)

Prepared for:

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Version 4.3a is a maintenance release of Version 4.3. The differences between the two versions are:

- Version 4.3a includes Version 29 of the Limited License edition of the 3MTM APR-DRG Grouper. This grouper corrects an issue found in Version 28 of the Limited License edition of the 3MTM APR-DRG Grouper. The grouper is only used with the Inpatient Quality Indicator (IQI) mortality measures. Version 4.3 includes Version 28 of the Limited License edition of the 3MTM APR-DRG Grouper, which was incorrectly assigning a Risk of Mortality (ROM) subclass for cases dated on or after 10/1/10.
- Version 4.3a allows users to calculate area-level indicators for years 2010 and 2011, correcting an issue previously identified in Version 4.3.

All other aspects of the software, including measure specifications, remain the same. Thus this document (related to Version 4.3) remains unchanged.

Table of Contents

Introduction	1
PQI- Area Level Rates	2
PQI- Area Level Rates (Males)	3
PQI- Area Level Rates (Females)	4
PQI- Area Level Rates (Ages 18 to 39)	5
PQI- Area Level Rates (Ages 40 to 64)	6
PQI- Area Level Rates (Ages 65 to 74)	7
PQI- Area Level Rates (Ages 75+)	8
PQI- Area Level Rates (Diabetic Population)	9
PQI- Area Level Rates (Diabetic Population- Ages 65-74) ¹	9
PQI- Area Level Rates (Diabetic Population- Ages 75+) ¹	9

Introduction

The data presented in these tables are nationwide comparative data for the Prevention Quality Indicators (PQI) calculated using the 2008 Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Inpatient Sample (NIS). The data are generated by calculating the numerators from the NIS without using any weights and then multiplying the numerator by five to account for the 20% sampling of the NIS¹. PQI #09 Low Birth Weight Rate appears in the <u>comparative data for the PDI report</u>, given the pediatric population. The Area Level Rates are presented per 100,000, unless otherwise noted. The rates for any cells with fewer than 11 cases are not presented.

¹ The approach of multiplying the numerator by five approximates the weight structure used by HCUPnet in their calculation of national rates.

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)	Risk Adjusted Rate PER 100,000 =(Risk Adjusted Rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	141,910	229,865,472	61.74	60.46
PQI 02	Perforated Appendix Admission Rate	13,905	49,378	28.16 ¹	28.24 ¹
PQI 03	Diabetes Long-Term Complications Admission Rate	295,810	229,865,472	128.69	133.32
PQI 05	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	798,165	137,998,189	578.39	595.56
PQI 07	Hypertension Admission Rate	142,755	229,865,472	62.10	64.28
PQI 08	Congestive Heart Failure (CHF) Admission Rate	919,340	229,865,472	399.95	433.14
PQI 10	Dehydration Admission Rate	404,990	229,865,472	176.19	186.66
PQI 11	Bacterial Pneumonia Admission Rate	831,240	229,865,472	361.62	386.12
PQI 12	Urinary Tract Infection Admission Rate	474,385	229,865,472	206.38	220.12
PQI 13	Angina Without Procedure Admission Rate	57,525	229,865,472	25.03	25.94
PQI 14	Uncontrolled Diabetes Admission Rate	53,120	229,865,472	23.11	23.49
PQI 15	Asthma in Younger Adults Admission Rate	54,905	9,1,867,283	59.77	59.97
PQI 16	Rate of Lower-Extremity Amputation Among Patients With Diabetes	40,300	229,865,472	17.53	18.41
PQI 90	Overall PQI Composite (PQIs 1, 3, 5, 7, 8, 10, 11, 12, 15 and 16)	4,195,880	229,865,472	1825.36	1,929.59
PQI 91	Acute PQI Composite (PQIs 10, 11 and 12)	1,710,615	229,865,472	744.18	792.55
PQI 92	Chronic PQI Composite (PQIs 1, 3, 5, 7, 8, 15 and 16)	2,485,360	229,865,472	1081.22	1,138.68

PQI- Area Level Rates

¹ This rate is reported per 100 rather than per 100,000 because its denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.

PQI- Area Level Rates (Males)

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	72,735	1,11,952,221	64.97
PQI 02	Perforated Appendix Admission Rate	7,831	26,669	29.36 ¹
PQI 03	Diabetes Long-Term Complications Admission Rate	155,070	111,952,221	138.51
PQI 05	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	315,570	65,092,399	484.80
PQI 07	Hypertension Admission Rate	56,225	111,952,221	50.22
PQI 08	Congestive Heart Failure (CHF) Admission Rate	443,520	111,952,221	396.17
PQI 10	Dehydration Admission Rate	157,920	111,952,221	141.06
PQI 11	Bacterial Pneumonia Admission Rate	382,145	111,952,221	341.35
PQI 12	Urinary Tract Infection Admission Rate	126,990	111,952,221	113.43
PQI 13	Angina Without Procedure Admission Rate	27,430	111,952,221	24.50
PQI 14	Uncontrolled Diabetes Admission Rate	25,280	111,952,221	22.58
PQI 15	Asthma in Younger Adults Admission Rate	17,130	46,859,822	36.56
PQI 16	Rate of Lower-Extremity Amputation Among Patients With Diabetes	25,300	111,952,221	22.60
PQI 90	Overall PQI Composite (PQIs 1, 3, 5, 7, 8, 10, 11, 12, 15 and 16)	1,793,070	111,952,221	1,601.64
PQI 91	Acute PQI Composite (PQIs 10, 11 and 12)	667,055	111,952,221	595.84
PQI 92	Chronic PQI Composite (PQIs 1, 3, 5, 7, 8, 15 and 16)	1,126,080	111,952,221	1,005.86

¹ This rate is reported per 100 rather than per 100,000 because its denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.

PQI- Area Level Rates (Females)

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	69,175	117,913,251	58.67
PQI 02	Perforated Appendix Admission Rate	6,074	22,709	26.75 ¹
PQI 03	Diabetes Long-Term Complications Admission Rate	140,740	117,913,251	119.36
PQI 05	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	482,595	72,905,790	661.94
PQI 07	Hypertension Admission Rate	86,530	117,913,251	73.38
PQI 08	Congestive Heart Failure (CHF) Admission Rate	475,820	117,913,251	403.53
PQI 10	Dehydration Admission Rate	247,070	117,913,251	209.54
PQI 11	Bacterial Pneumonia Admission Rate	449,095	117,913,251	380.87
PQI 12	Urinary Tract Infection Admission Rate	347,395	117,913,251	294.62
PQI 13	Angina Without Procedure Admission Rate	30,095	117,913,251	25.52
PQI 14	Uncontrolled Diabetes Admission Rate	27,840	117,913,251	23.61
PQI 15	Asthma in Younger Adults Admission Rate	37,775	45,007,461	83.93
PQI 16	Rate of Lower-Extremity Amputation Among Patients With Diabetes	15,000	117,913,251	12.72
PQI 90	Overall PQI Composite (PQIs 1, 3, 5, 7, 8, 10, 11, 12, 15 and 16)	2,402,810	117,913,251	2,037.78
PQI 91	Acute PQI Composite (PQIs 10, 11 and 12)	1,043,560	117,913,251	885.02
PQI 92	Chronic PQI Composite (PQIs 1, 3, 5, 7, 8, 15 and 16)	1,359,280	117,913,251	1,152.78

¹ This rate is reported per 100 rather than per 100,000 because its denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.

PQI- Area Level Rates (Ages 18 to 39)

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	69,920	9,1867,283	76.11
PQI 02	Perforated Appendix Admission Rate	4,521	25,217	17.93 ¹
PQI 03	Diabetes Long-Term Complications Admission Rate	30,585	91,867,283	33.29
PQI 05	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate			
PQI 07	Hypertension Admission Rate	13,230	91,867,283	14.40
PQI 08	Congestive Heart Failure (CHF) Admission Rate	18,145	91,867,283	19.75
PQI 10	Dehydration Admission Rate	40,905	91,867,283	44.53
PQI 11	Bacterial Pneumonia Admission Rate	57,465	91,867,283	62.55
PQI 12	Urinary Tract Infection Admission Rate	58,970	91,867,283	64.19
PQI 13	Angina Without Procedure Admission Rate	2,590	91,867,283	2.82
PQI 14	Uncontrolled Diabetes Admission Rate	9,230	91,867,283	10.05
PQI 15	Asthma in Younger Adults Admission Rate	54,905	91,867,283	59.77
PQI 16	Rate of Lower-Extremity Amputation Among Patients With Diabetes	1,220	91,867,283	1.33
PQI 90	Overall PQI Composite (PQIs 1, 3, 5, 7, 8, 10, 11, 12, 15 and 16)	356,435	91,867,283	387.99
PQI 91	Acute PQI Composite (PQIs 10, 11 and 12)	157,340	91,867,283	171.27
PQI 92	Chronic PQI Composite (PQIs 1, 3, 5, 7, 8, 15 and 16)	199,095	91,867,283	216.72

¹ This rate is reported per 100 rather than per 100,000 because its denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.

PQI- Area Level Rates (Ages 40 to 64)

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	58,505	9,9215,970	58.97
PQI 02	Perforated Appendix Admission Rate	6,453	18,445	34.99 ¹
PQI 03	Diabetes Long-Term Complications Admission Rate	138,090	9,9215,970	139.18
PQI 05	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	328,875	9,9215,970	331.47
PQI 07	Hypertension Admission Rate	65,745	9,9215,970	66.26
PQI 08	Congestive Heart Failure (CHF) Admission Rate	216,030	9,9215,970	217.74
PQI 10	Dehydration Admission Rate	118,725	9,9215,970	119.66
PQI 11	Bacterial Pneumonia Admission Rate	232,390	9,9215,970	234.23
PQI 12	Urinary Tract Infection Admission Rate	93,520	9,9215,970	94.26
PQI 13	Angina Without Procedure Admission Rate	30,255	9,9215,970	30.49
PQI 14	Uncontrolled Diabetes Admission Rate	27,645	9,9215,970	27.86
PQI 15	Asthma in Younger Adults Admission Rate			
PQI 16	Rate of Lower-Extremity Amputation Among Patients With Diabetes	18,000	9,9215,970	18.14
PQI 90	Overall PQI Composite (PQIs 1, 3, 5, 7, 8, 10, 11, 12, 15 and 16)	1,318,405	9,9215,970	1,328.82
PQI 91	Acute PQI Composite (PQIs 10, 11 and 12)	444,635	9,9215,970	448.15
PQI 92	Chronic PQI Composite (PQIs 1, 3, 5, 7, 8, 15 and 16)	873,795	9,9215,970	880.70

¹ This rate is reported per 100 rather than per 100,000 because its denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.

PQI- Area Level Rates (Ages 65 to 74)

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	7,370	20,130,560	36.61
PQI 02	Perforated Appendix Admission Rate	1,705	3,379	50.46 ¹
PQI 03	Diabetes Long-Term Complications Admission Rate	58,350	20,130,560	289.86
PQI 05	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	208,685	20,130,560	1,036.66
PQI 07	Hypertension Admission Rate	24,070	20,130,560	119.57
PQI 08	Congestive Heart Failure (CHF) Admission Rate	182,245	20,130,560	905.32
PQI 10	Dehydration Admission Rate	70,975	20,130,560	352.57
PQI 11	Bacterial Pneumonia Admission Rate	154,505	20,130,560	767.51
PQI 12	Urinary Tract Infection Admission Rate	70,580	20,130,560	350.61
PQI 13	Angina Without Procedure Admission Rate	10,815	20,130,560	53.72
PQI 14	Uncontrolled Diabetes Admission Rate	7,695	20,130,560	38.23
PQI 15	Asthma in Younger Adults Admission Rate			
PQI 16	Rate of Lower-Extremity Amputation Among Patients With Diabetes	10,235	20,130,560	50.84
PQI 90	Overall PQI Composite (PQIs 1, 3, 5, 7, 8, 10, 11, 12, 15 and 16)	801,255	20,130,560	3,980.29
PQI 91	Acute PQI Composite (PQIs 10, 11 and 12)	296,060	20,130,560	1,470.70
PQI 92	Chronic PQI Composite (PQIs 1, 3, 5, 7, 8, 15 and 16)	505,215	20,130,560	2,509.69

¹ This rate is reported per 100 rather than per 100,000 because its denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.

PQI- Area	Level Rates	(Ages 75+)
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INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	6,115	1,8651,659	32.79
PQI 02	Perforated Appendix Admission Rate	1,226	2,337	52.46 ¹
PQI 03	Diabetes Long-Term Complications Admission Rate	68,785	1,8651,659	368.79
PQI 05	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	260,605	1,8651,659	1,397.22
PQI 07	Hypertension Admission Rate	39,710	1,8651,659	212.90
PQI 08	Congestive Heart Failure (CHF) Admission Rate	502,920	1,8651,659	2,696.38
PQI 10	Dehydration Admission Rate	174,385	1,8651,659	934.96
PQI 11	Bacterial Pneumonia Admission Rate	386,880	1,8651,659	2,074.24
PQI 12	Urinary Tract Infection Admission Rate	251,315	1,8651,659	1,347.41
PQI 13	Angina Without Procedure Admission Rate	13,865	1,8651,659	74.34
PQI 14	Uncontrolled Diabetes Admission Rate	8,550	1,8651,659	45.84
PQI 15	Asthma in Younger Adults Admission Rate			
PQI 16	Rate of Lower-Extremity Amputation Among Patients With Diabetes	10,845	1,8651,659	58.14
PQI 90	Overall PQI Composite (PQIs 1, 3, 5, 7, 8, 10, 11, 12, 15 and 16)	1,719,785	1,8651,659	9,220.55
PQI 91	Acute PQI Composite (PQIs 10, 11 and 12)	812,580	1,8651,659	4,356.61
PQI 92	Chronic PQI Composite (PQIs 1, 3, 5, 7, 8, 15 and 16)	907,255	1,8651,659	4,864.21

¹ This rate is reported per 100 rather than per 100,000 because its denominator is based on the number of discharges with a diagnosis of appendicitis, rather than the Metro Area or county population.

PQI- Area Level Rates (Diabetic Population)¹

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	69,920	19,000,000	368
PQI 03	Diabetes Long-Term Complications Admission Rate	30,585	19,000,000	160.97
PQI 14	Uncontrolled Diabetes Admission Rate	9,230	19,000,000	48.58

PQI- Area Level Rates (Diabetic Population- Ages 65-74)¹

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	7,370	3,781,000	194.92
PQI 03	Diabetes Long-Term Complications Admission Rate	58,350	3,781,000	1,543.24
PQI 14	Uncontrolled Diabetes Admission Rate	7,695	3,781,000	203.52

PQI- Area Level Rates (Diabetic Population- Ages 75+)¹

INDICATOR	LABEL	NUMERATOR	DENOMINATOR	Observed Rate PER 100,000 (=Observed rate*100,000)
PQI 01	Diabetes Short-Term Complications Admission Rate	6,115	3,363,000	181.83
PQI 03	Diabetes Long-Term Complications Admission Rate	68,785	3,363,000	2,045.35
PQI 14	Uncontrolled Diabetes Admission Rate	8,550	3,363,000	254.24

¹ 2008 diabetic population denominator data retrieved from: <u>http://www.cdc.gov/diabetes/statistics/prevalence_national.htm</u>, which can also be calculated with the QI SAS software through the condition-specific denominator at the state level feature.