*AHRQ Quality Indicators$^{TM}$*

# PREVENTION QUALITY INDICATORS™ v2020 Benchmark Data Tables

## Prepared for:

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**July 2020**

# Contents

# Introduction

The data presented in this document are nationwide comparative rates for Version 2020 of Agency for Healthcare Research and Quality (AHRQ) Quality Indicators™ (QI) Prevention Quality Indicators (PQI) software. The numerators, denominators and observed rates shown in this document are based on an analysis of discharge data from the 2017 AHRQ Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID).

HCUP is a family of healthcare 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, Tenth Revision, Clinical Modification/Procedural Classification System (ICD-10-CMS/PCS)* diagnoses and procedures, length of stay, expected payer, admission and discharge dates, and discharge disposition. In 2017, 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 2020 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.

The 2017 HCUP SID includes information on all inpatient discharges from hospitals in participating States. Discharges from all 48 participating States are used to develop area-level indicators.[1]

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 area-level indicators are per 100,000 population. 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. 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 (--).

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[1] States in the 2017 reference population for the area-level indicators include: AK, AR, AZ, CA, CO, CT, DE, DC, FL, GA, HI, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, and WY.

# Acknowledgments

## Table 1. Prevention Quality Indicators for Overall Population: Area-Level Indicators

| INDICATOR | LABEL | NUMERATOR | DENOMINATOR* | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|---|
| PQI 01 | Diabetes Short-Term Complications Admission Rate, per 100,000 Population | 143,038 | 245,257,944 | 58.32 |
| PQI 03 | Diabetes Long-Term Complications Admission Rate, per 100,000 Population | 255,234 | 245,258,255 | 104.07 |
| PQI 05 | Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate, per 100,000 Population | 743,537 | 150,567,776 | 493.82 |
| PQI 07 | Hypertension Admission Rate, per 100,000 Population | 147,100 | 245,258,263 | 59.98 |
| PQI 08 | Heart Failure Admission Rate, per 100,000 Population | 1,012,862 | 245,266,789 | 412.96 |
| PQI 11 | Community-Acquired Pneumonia Admission Rate, per 100,000 Population | 389,468 | 245,262,164 | 158.80 |
| PQI 12 | Urinary Tract Infection Admission Rate, per 100,000 Population | 346,527 | 245,260,947 | 141.29 |
| PQI 14 | Uncontrolled Diabetes Admission Rate, per 100,000 Population | 105,486 | 245,258,038 | 43.01 |
| PQI 15 | Asthma in Younger Adults Admission Rate, per 100,000 Population | 28,662 | 94,694,689 | 30.27 |
| PQI 16 | Lower - Extremity Amputation Among Patients With Diabetes Rate, per 100,000 Population | 71,762 | 245,258,019 | 29.26 |
| PQI 90 | Prevention Quality Overall Composite, per 100,000 Population | 3,204,435 | 245,300,002 | 1,306.33 |
| PQI 91 | Prevention Quality Acute Composite, per 100,000 Population | 735,995 | 245,267,168 | 300.08 |
| PQI 92 | Prevention Quality Chronic Composite, per 100,000 Population | 2,468,463 | 245,282,148 | 1,006.38 |
| PQI 93 | Prevention Quality Diabetes Composite, per 100,000 Population | 536,621 | 245,258,743 | 218.80 |

*Rate computed among persons with diabetes, Denominator is not a rate, and not all indicators are related to diabetes

## Table 2. PQI 01 – Diabetes Short-Term Complications Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 143,038 | 245,257,944 | 58.32 |
| Females | 70,831 | 125,768,147 | 56.32 |
| Males | 72,207 | 119,489,797 | 60.43 |
| 18 to 39 years | 79,777 | 94,694,699 | 84.25 |
| 40 to 64 years | 48,354 | 101,114,443 | 47.82 |
| 65 to 74 years | 9,167 | 28,825,232 | 31.80 |
| 75+ years | 5,740 | 20,623,570 | 27.83 |

## Table 3. PQI 03 – Diabetes Long-Term Complications Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 255,234 | 245,258,255 | 104.07 |
| Females | 95,590 | 125,768,233 | 76.00 |
| Males | 159,644 | 119,490,022 | 133.60 |
| 18 to 39 years | 24,028 | 94,694,684 | 25.37 |
| 40 to 64 years | 139,229 | 101,114,544 | 137.69 |
| 65 to 74 years | 53,761 | 28,825,316 | 186.51 |
| 75+ years | 38,216 | 20,623,711 | 185.30 |

## Table 4. PQI 05 – Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 743,537 | 150,567,776 | 493.82 |
| Females | 437,633 | 79,123,529 | 553.10 |
| Males | 305,904 | 71,444,247 | 428.17 |
| 40 to 64 years | 294,864 | 101,114,961 | 291.61 |
| 65 to 74 years | 209,954 | 28,826,438 | 728.34 |
| 75+ years | 238,719 | 20,626,377 | 1,157.35 |

## Table 5. PQI 07 – Hypertension Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 147,100 | 245,258,263 | 59.98 |
| Females | 82,545 | 125,768,358 | 65.63 |
| Males | 64,555 | 119,489,905 | 54.03 |
| 18 to 39 years | 15,857 | 94,694,683 | 16.75 |

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| 40 to 64 years | 66,306 | 101,114,478 | 65.58 |
| 65 to 74 years | 26,740 | 28,825,287 | 92.77 |
| 75+ years | 38,197 | 20,623,815 | 185.21 |

## Table 6. PQI 08 – Heart Failure Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 1,012,862 | 245,266,789 | 412.96 |
| Females | 490,502 | 125,772,648 | 389.99 |
| Males | 522,360 | 119,494,141 | 437.14 |
| 18 to 39 years | 25,361 | 94,694,688 | 26.78 |
| 40 to 64 years | 273,466 | 101,114,723 | 270.45 |
| 65 to 74 years | 227,496 | 28,826,383 | 789.19 |
| 75+ years | 486,539 | 20,630,995 | 2,358.29 |

## Table 7. PQI 11 – Community-Acquired Pneumonia Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 389,468 | 245,262,164 | 158.80 |
| Females | 212,078 | 125,770,379 | 168.62 |
| Males | 177,390 | 119,491,785 | 148.45 |
| 18 to 39 years | 28,405 | 94,694,692 | 30.00 |
| 40 to 64 years | 106,087 | 101,114,668 | 104.92 |
| 65 to 74 years | 77,405 | 28,825,674 | 268.53 |
| 75+ years | 177,571 | 20,627,130 | 860.86 |

## Table 8. PQI 12 – Urinary Tract Infection Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 346,527 | 245,260,947 | 141.29 |
| Females | 254,397 | 125,770,527 | 202.27 |
| Males | 92,130 | 119,490,420 | 77.10 |
| 18 to 39 years | 31,245 | 94,694,700 | 33.00 |
| 40 to 64 years | 65,679 | 101,114,529 | 64.96 |
| 65 to 74 years | 62,040 | 28,825,473 | 215.23 |
| 75+ years | 187,563 | 20,626,245 | 909.34 |

## Table 9. PQI 14 – Uncontrolled Diabetes Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 105,486 | 245,258,038 | 43.01 |
| Females | 52,326 | 125,768,176 | 41.61 |
| Males | 53,160 | 119,489,862 | 44.49 |
| 18 to 39 years | 13,289 | 94,694,682 | 14.03 |
| 40 to 64 years | 43,766 | 101,114,453 | 43.28 |
| 65 to 74 years | 22,483 | 28,825,258 | 78.00 |
| 75+ years | 25,948 | 20,623,645 | 125.82 |

## Table 10. PQI 15 – Asthma in Younger Adults Admission Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 28,662 | 94,694,689 | 30.27 |
| Females | 18,983 | 46,647,160 | 40.69 |
| Males | 9,679 | 48,047,529 | 20.14 |
| 18 to 39 years | 28,662 | 94,694,689 | 30.27 |

## Table 11. PQI 16 – Lower-Extremity Amputation Among Patients With Diabetes Rate, per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 71,762 | 245,258,019 | 29.26 |
| Females | 20,608 | 125,768,151 | 16.39 |
| Males | 51,154 | 119,489,868 | 42.81 |
| 18 to 39 years | 2,816 | 94,694,681 | 2.97 |
| 40 to 64 years | 39,087 | 101,114,466 | 38.66 |
| 65 to 74 years | 17,928 | 28,825,258 | 62.20 |
| 75+ years | 11,931 | 20,623,614 | 57.85 |

## Table 12. PQI 90 – Prevention Quality Overall Composite[a], per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 3,204,435 | 245,300,002 | 1,306.33 |
| Females | 1,724,492 | 125,791,588 | 1,370.91 |
| Males | 1,479,943 | 119,508,414 | 1,238.36 |
| 18 to 39 years | 247,962 | 94,694,789 | 261.85 |
| 40 to 64 years | 1,055,747 | 101,119,224 | 1,044.06 |
| 65 to 74 years | 697,084 | 28,834,682 | 2,417.52 |
| 75+ years | 1,203,642 | 20,651,307 | 5,828.41 |

a Composite includes PQI 1, 3, 5, 7, 8, 11, 12, 14, 15 and 16

### Table 13. PQI 91 – Prevention Quality Acute Composite[a], per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 735,995 | 245,267,168 | 300.08 |
| Females | 466,475 | 125,774,092 | 370.88 |
| Males | 269,520 | 119,493,076 | 225.55 |
| 18 to 39 years | 59,650 | 94,694,713 | 62.99 |
| 40 to 64 years | 171,766 | 101,114,852 | 169.87 |
| 65 to 74 years | 139,445 | 28,826,210 | 483.74 |
| 75+ years | 365,134 | 20,631,393 | 1,769.80 |

a Composite includes PQI 11 and 12

### Table 14. PQI 92 – Prevention Quality Chronic Composite[a], per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 2,468,463 | 245,282,148 | 1,006.38 |
| Females | 1,258,026 | 125,780,491 | 1,000.18 |
| Males | 1,210,437 | 119,501,657 | 1,012.90 |
| 18 to 39 years | 188,312 | 94,694,736 | 198.86 |
| 40 to 64 years | 883,988 | 101,117,436 | 874.22 |
| 65 to 74 years | 557,649 | 28,831,063 | 1,934.20 |
| 75+ years | 838,514 | 20,638,913 | 4,062.78 |

a Composite includes PQI 1, 3, 5, 7, 8, 14, 15 and 16

### Table 15. PQI 93 – Prevention Quality Diabetic Composite[a], per 100,000 Population

| GROUP | NUMERATOR | DENOMINATOR | OBSERVED RATE PER 100,000 (=OBSERVED RATE*100,000) |
|---|---|---|---|
| Overall | 536,621 | 245,258,743 | 218.80 |
| Females | 228,455 | 125,768,394 | 181.65 |
| Males | 308,166 | 119,490,349 | 257.90 |
| 18 to 39 years | 118,435 | 94,694,709 | 125.07 |
| 40 to 64 years | 249,490 | 101,114,669 | 246.74 |
| 65 to 74 years | 93,574 | 28,825,407 | 324.62 |
| 75+ years | 75,122 | 20,623,958 | 364.25 |

a Composite includes PQI 1, 3, 14 and 16