Prevention Quality Indicators

Technical Report

2024 Data

Health Care Quality Assessment

Division of Health Data & Analytics
New Jersey Department of Health

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Executive Summary

The Office of Health Care Quality Assessment (HCQA) of the New Jersey Department of Health (NJDOH) assesses health care quality using quantitative data reported mainly by hospitals to support performance monitoring related to patient care and safety. Specifically, HCQA produces consumer reports on cardiac surgery, hospital performance, healthcare quality indicators; reviews confidential reports and root cause analyses of reportable medical errors; and maintains several databases to support licensure requirements. To enrich the information the Department provides to the public on hospital care, HCQA staff routinely evaluate healthcare quality in the State by applying statistical tools developed by the Federal Agency for Healthcare Research and Quality (AHRQ) on the New Jersey Hospital Discharge Data Collection System (NJDDCS) which are derived from hospital uniform billing (UB) data.

This report presents findings resulting from the application of a statistical tool known as the Prevention Quality Indicators (PQIs) module to the 2024 NJ UB data on inpatient hospital discharge information. The module primarily calculates potentially preventable hospitalizations. Evidence has shown that early intervention to prevent complications and address exacerbations of ambulatory care-sensitive conditions, such as diabetes, chronic obstructive pulmonary disease (COPD), asthma, and congestive heart failure (CHF), through good primary care may prevent the need for hospitalization. More specifically, the PQIs measure outcomes of preventive care for both acute illnesses and chronic conditions, reflecting two important components of the quality of preventive care: efficacy and timeliness. The indicators identify hospital admissions in geographic areas that, according to AHRQ's specifications, would be considered avoidable if patients had access to high quality outpatient care.

The purpose of this report is to provide hospitals, community leaders, and policy makers with information that would help them identify community-level health care needs to target resources and track the impact of programmatic and policy interventions. PQIs have been applied at the national level, in the National Healthcare Quality and Disparities Reports (NHQDR).

The report presents volume of preventable hospitalizations derived from the 2024 UB data in each of the 21 counties. Observed, expected and risk-adjusted rates along with their 95% confidence intervals for each of the 14 evaluated indicators (i.e., ten individual and four composite) are presented to help assess the quality of preventive health care in each county. Moreover, statewide, and national estimates are provided for comparison purposes. The 2024 data shows that there are substantial variations in hospitalizations rates by county. Some counties exhibit significantly higher hospitalization rates than others when compared to the statewide average rates.

Some Highlights

- Based on AHRQ's specifications of a 'preventable hospitalization', there were about 90,000 potentially preventable hospitalizations for treatment of medical conditions in NJ hospitals, in 2024.

- Hospitalization cost estimates derived from application of the Hospitalization Cost and Utilization Project (HCUP) cost-to-charge ratio (CCR) estimators indicate that preventing the 90,000 potentially avoidable hospitalizations of these conditions through better health care management would have saved approximately 1.6 billion dollars ($1,670,372,344.83) in 2024 (Table 14).

- In 2024, there were 4,755 hospital admissions for diabetes with short-term complications in NJ for a statewide risk-adjusted rate of 64.1 per 100,000 in the population age 18 and over. Hospital admission rates for diabetes with short-term complications in Atlantic, Camden, Cumberland, Essex**,** Mercer**,** Passaic**,** and Warren were statistically significantly higher than the statewide average. By comparison, hospitalization rates for Bergen, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Somerset, and Sussex were statistically significantly lower than the statewide average (Table 1).

- Statewide, there were 11,192 preventable hospital admissions for chronic obstructive pulmonary disease (COPD) in adults aged 40 and over in 2024, for a risk-adjusted rate of 233.1 per 100,000. Admission rates for COPD range from 109.5 100,000 in Somerset County to 1,026.7 per 100,000 in Cumberland County (Table 3).

- There were 5,560 preventable hospital admissions for hypertension treatment in 2024, for a risk-adjusted rate of 72.1 per 100,000 in the population aged 18 and older. Rates of hospital admission for hypertension ranged from a low of 36.0 per 100,000 in Salem County to a high of 196.1 per 100,000 in Cumberland County (Table 4).

- In 2024, there were 31,338 preventable heart failure (HF) hospital admissions for a risk-adjusted average rate of 396.8 per 100,000 adults aged 18 or older. The data indicates that Cumberland County had the highest hospitalization rate (1,100.6 per 100,000) for heart failure while Somerset had the lowest rate (246.4 per 100,000). See Table 5.

- Similar variations are observed in other PQIs among the 21 counties, which suggest that these indicators may be used as important baseline indicators to help examine determinants that led to variations in preventable hospital admissions.

- Table 13 displays New Jersey's hospitalization rates in comparison to the national

benchmark data for the years 2018, 2020 and 2022. Note that total hospitalizations (PQI 90) in 2020 are lower compared to other years, not necessarily due to health care improvements, but possibly due to the COVID-19 pandemic. For most of 2020, hospitals were overwhelmed with COVID-19 patients making it difficult for other patients to be admitted to hospitals. Additionally, individuals were reluctant to go to hospitals due to fear of COVID-19 infections, as well as the lockdown environment at the time. You can see that NJ hospitalizations in 2024 went back to 1,137.9 per 100,000.

Introduction

The Office of Health Care Quality Assessment (HCQA) of the New Jersey Department of Health (NJDOH) assesses health care quality using quantitative data reported mainly by hospitals to support performance monitoring related to patient care and safety. Specifically, HCQA produces consumer reports on cardiac surgery, hospital performance, hospital quality indicators; reviews confidential reports and root-cause analyses of reportable medical errors; and maintains several databases to support licensure requirements. To enhance the information that the Department provides to the public on hospital care, HCQA staff routinely apply statistical tools developed by the Federal Agency for Healthcare Research and Quality (AHRQ) on the New Jersey hospital discharge data derived from as the NJ uniform billing (UB) data.

The AHRQ quality indicators (QIs) are a set of quality indicators organized into four modules, each of which measures quality associated with patient care in outpatient or inpatient settings. These four modules are: Prevention Quality Indicators (PQIs); Inpatient Quality Indicators (IQIs); Patient Safety Indicators (PSIs); and Pediatric Quality Indicators (PDIs). Background information on the development of these modules and the primary purpose they are designed to serve can be found at: qualityindicators.ahrq.gov/measures/pqi_resources. It is important to note that the modules are regularly updated with new and enhanced information to improve the reliability of the quality indicator measurements.

This report presents findings from the application of the latest Prevention Quality Indicator (PQI) module (Version 2025) to the 2024 NJ UB data. The report is organized into sections. The description of the Prevention Quality Indicators module and the interpretation of the PQI measures, including definitions of individual indicators presented in subsequent sections are largely excerpted from AHRQ's guide and software documentation to Prevention Quality Indicators. These sources are provided in the reference section. The PQIs report also serves as a supplement to the Department other quality indicator reports such as the Inpatient Quality Indicators report, Patient Safety Indicators report, the Hospital Performance report, the Cardiac Surgery report, and the Patient Safety Reporting System summary report.

The 2024 NJ data shows that there are substantial variations in potentially preventable hospital admission rates by county. Some counties exhibit significantly higher rates (i.e., hospital admission rates) than the corresponding statewide rates while others have significantly lower rates.

The Prevention Quality Indicators (PQIs) Module

The Prevention Quality Indicators (PQIs) are a set of measures that can be used with hospital inpatient discharge data to identify "ambulatory care sensitive conditions" (ACSCs). ACSCs are conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or progression to more severe disease. The PQIs are of most interest to comprehensive health care delivery systems, such as health maintenance organizations (HMOs), or public health agencies.

Although other factors outside the direct control of the health care system, such as poor environmental conditions, lack of patient adherence to treatment recommendations, and other social determinants of health can result in hospitalization, PQIs provide a good starting point for assessing quality of health services in the community. Because PQIs are calculated using readily available hospital administrative data, they provide an easy-to-use and inexpensive regional screening tool. They can be used to provide a window into the community: to identify unmet community health care needs, to monitor how well complications from some common diseases are being avoided in the outpatient setting, and to compare performance of local health care systems across communities.

These indicators measure outcomes of preventive care for both acute illnesses and chronic conditions, reflecting two important components of the quality of preventive care: efficacy and timeliness. For example, hospital admissions for hypertension can be prevented with outpatient medication management. The incidence of COPD hospitalizations can be reduced with accurate diagnosis and timely access to medical treatments that prevent exacerbation and treat breathlessness. Thus, the PQI module, which focuses on preventive care services, represents the current state of the art in assessing quality of health services in local communities using inpatient discharge data. It is a valuable tool for identifying potential health care quality problems in outpatient care so that they get timely attention for a more in-depth investigation.

PQIs are used to assess the quality of the whole health care system including the quality of ambulatory care, in preventing medical complications. That is why these measures are of greater value when reported at the population level. Such information is valuable for public health groups, state data organizations, and others concerned with community-wide health problems. Most importantly, policy makers and health care providers can use PQIs to answer questions such as: Does the admission rate for diabetes complications in my community suggest a problem in the provision of appropriate outpatient care to this population? How does the admission rate for heart failure vary over time and from one county to another?

Both researchers and policy makers agree that UB data offers useful information on the quality of preventive care in the community. The goal is for hospitals, community leaders, and policy makers to use such readily available data to identify community-level health care needs, target resources, and track the impact of programming and policy

interventions. The PQIs module is intended to facilitate such an effort, and has already been applied, at the national level, in the National Healthcare Quality and Disparities Report (NHQDR).

The PQIs consists of the following 14 indicators that measure hospital admissions for ACSCs across geographic areas. AHRQ developed these indicators after a comprehensive literature review, analysis of the International Classification of Diseases, 9th Revision, Clinical Modification and Procedure Coding System, (ICD-09-CM/PCS) codes, review by a clinician panel, implementation of risk adjustment, and empirical analyses. The latest PQIs module (Version 2025) is based on the most current ICD-10-CM/PCS). The 14 PQIs included in latest version of the module are as follows:

- PQI 01 - Diabetes short-term complications admission rate
- PQI 03 - Diabetes long-term complications admission rate
- PQI 05 - Chronic obstructive pulmonary disease (COPD) or asthma in older adults
- PQI 07 - Hypertension admission rate
- PQI 08 - Heart failure (HF) admission rate
- PQI 11 - Community-acquired pneumonia admission rate
- PQI 12 - Urinary tract infection (UTI) admission rate
- PQI 14 - Uncontrolled diabetes admission rate
- PQI 15 - Asthma in younger adults' admission rate
- PQI 16 - Lower-extremity amputation among patients with diabetes rate
- PQI 90 - Prevention quality overall composite) (composite score of all 10 previous PQIs)
- PQI 91 - Prevention quality acute composite (composite score of PQI 11 and 12)
- PQI 92 – Prevention quality chronic composite (composite score of all the 8 non-acute PQIs)
- PQI 93 – Prevention quality diabetes composite

How Are PQI Rates Calculated?

The PQIs software produces county-level volume of admissions as well as observed, expected, and risk-adjusted rates for each of the 14 indicators. This report presents data generated by Version 2025 of AHRQ's SAS Software program. Interpretations and guidelines on when to use the observed, expected, and risk adjusted rates as well as composite scores are discussed below. However, that there are no "correct or perfect hospital admission rates" for these conditions and that nuance should be considered when evaluating these data. 'Very low' rates could signal inappropriate underutilization of health care resources while 'very high' rates could indicate potential overuse of hospital care. Therefore, hospital admission for ACSCs is not a measure of hospital quality but a potential indicator of outpatient and community health care needs at the county level. For

example, if an area has a relatively high hospital admission rate for diabetes complications, local health care providers should work with the community to identify reasons and strategies to address the problem.

> ***Observed rates*:** The observed rate, which is defined as the number of events of interest (numerator) divided by the population at risk (denominator), is the raw rate generated by the software from the data under analysis. In other words, observed rates are the number of hospitalizations for the condition of interest divided by the number of individuals who live in that area who are at risk for the condition. The population at risk (the denominator for calculating a PQI rate) is derived from census population figures defined by county.
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> The observed rate is primarily used to help identify cases for further follow-up and quality improvement. Counties or communities needing improvement can be identified by the magnitude of the observed rate by comparing the rate to available benchmarks and/or by the number of patients impacted. In this case, the national and statewide rates would be benchmarks for comparison.

Another approach to identify areas that need more attention for focus is to compare the *observed and expected rates*.

> ***Expected rates*:** The expected rate is the rate a county would have if it had the same patient case-mix (i.e., by age, gender, diagnosis-related group (DRG), and comorbidity categories) as the reference population. It is the rate that would be predicted if the expected level of care observed in the reference population (national database) and estimated with risk- adjustment regression models were applied to the mix of patients with demographic and comorbidity distributions observed in the Statewide dataset. The expected rate answers the question, “What rate of hospitalization for a given indicator would we expect to see if this area/county has provided the average level of care observed in the reference population?”. In short, expected rates are predicted for each area using risk-adjustment model coefficients that summarize the age and sex distribution of the area’s population and optionally, the poverty decile within which the area's poverty rate falls.
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> When the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than expected for that specific indicator. And when the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population.
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> ***Risk-adjusted rates*:** The risk-adjusted rate is the rate the county would have if it had the same patient case-mix (age, sex, DRG, and comorbidity) as the reference population. Alternatively, a risk-adjusted rate is defined as the estimated performance of a county on the PQI assuming that the county has the case-mix of the reference population.

The risk adjusted rate is the ratio of the observed rate and expected rate multiplied by the reference population observed rate. Therefore, it answers the same question as the ratio of the observed and expected: “How does the rate of hospitalization for this area or county compare with the rate we would expect to see if it has provided the average level of care observed in the reference population?” If a county’s risk-adjusted rate for a given indicator is significantly higher than the reference rate (i.e., statewide average rate), then the county is performing worse than the statewide average in its community level achievement of preventable hospitalizations. In short, readers may use the statewide risk-adjusted rate as a benchmark to compare county-level risk-adjusted admission rates.

Interpretation of PQI Measures

- PQIs are not intended to be used as definitive quality measures, but they are a useful, low-cost measure that can potentially illuminate differences across geographic areas that hospitals serve by assessing hospital admission rates for ambulatory care sensitive conditions (ACSCs).

- Performance on a single PQI cannot reliably show actual quality differences. For this reason, some indicators have been developed as measure sets. For instance, four indicators evaluated are related to diabetes –diabetes with short-term complications, (PQI 01) diabetes with long-term complications (PQI 03), uncontrolled diabetes (PQI 14) and lower-extremity amputation among patients with diabetes (PQI 16). Examining these indicators together is likely to produce a more complete picture of overall quality of care for this condition which led AHRQ to develop a new indicator named diabetes composite (PQI 93) in later versions.

- Since there are no “correct or perfect admission rates” established for most indicators, it is often better to compare county-level rates with other similar areas. These “peer groups” would ideally be as similar as possible in potentially important factors, such as socioeconomic status of the population, and urban or rural location. However, the most applied approach is to compare a county’s risk-adjusted rate with the statewide risk-adjusted rate.

    - A county's performance is measured by comparing its confidence interval to the statewide risk-adjusted rate to see if the 95% confidence interval for its risk- adjusted estimate contains within its lower and upper limits, the statewide risk- adjusted estimate for a given indicator.

    - If a county's confidence interval for its rate contains the statewide risk-adjusted rate, then the county's risk-adjusted rate is not statistically significantly different from the statewide rate.

- If a county's confidence interval for its rate falls entirely below the statewide risk-adjusted rate, then the county's risk-adjusted rate is significantly lower than

the statewide rate. In the tables, these rates are marked by single asterisk (*). Note that lower rates imply better performance. If a county's confidence interval falls entirely above the statewide risk- adjusted rate, then the county's risk-adjusted rate is significantly higher than the statewide rate. In the tables, these rates are marked by double asterisks (**).

- This report is only a guide for consumers and should not be used by itself to draw a conclusion about a county's overall performance in population health.

- Readers can also compare a county's risk-adjusted rate with its own observed and expected rates. The difference will indicate the impact of risk-adjustment or the impact of differences in case-mix on the indicator.

- It should be noted that lower rates (*) imply better performance while higher rates (**) imply worse performance – rates being measures of avoidable hospitalizations by keeping good community level health care quality.

Strengths and Limitations of PQIs

- Even though these indicators are based on hospital inpatient data, they also provide insight into the quality of the health care system outside the hospital setting. Patients with diabetes may be hospitalized for diabetic complications if their conditions are not adequately monitored or if they do not receive the patient education needed for appropriate self-management. Patients may be hospitalized for asthma if primary care providers fail to adhere to practice guidelines or to prescribe appropriate treatments. Patients with long-term diabetes and poor foot care who do not have proper and continued treatment and glucose control may end up having to go for lower-extremity amputation. Thus, the PQIs are measures of the impact of preventive care for both acute illnesses and chronic conditions, reflecting two important components of the quality of preventive care - efficacy and timeliness. In short, the PQIs module is a valuable tool to help flag potential health care quality problem areas that need further investigation. Moreover, the indicators can provide a quick check on access to health care or outpatient services in a community by using patient data found in a typical hospital discharge abstract.

- Despite the strengths, however, there are several issues that should be considered when using these indicators. For some PQIs, the effects of social determinants of health can be difficult issues to control in the analysis of data. Differences in socioeconomic status have been used to explain a substantial part of the variation in rates across counties. The complexity of the relationship between socioeconomic status and PQI rates makes it difficult to delineate how much of the observed relationships are due to true access to care in potentially underserved populations, or due to other patient characteristics, unrelated to

quality of care. In addition, environmental conditions that are not under the direct control of the health care system can substantially influence some of the PQIs. For example, COPD and asthma admission rates are likely to be higher in areas with poorer air quality.

- The other issue is that not many studies have directly addressed the question of whether effective treatments in outpatient settings would reduce the overall incidence of hospitalizations. The extent to which the reporting of admission rates for ambulatory care sensitive conditions (ACSCs) may lead to changes in ambulatory care practices and admission rates is still unknown. Providers may admit patients who do not clinically require inpatient care, or they may do the opposite - fail to hospitalize patients who would benefit from inpatient care.

PQI Measures for New Jersey

This section presents county-level PQI estimates for New Jersey in 2024. First, the definition of the indicator is provided. Then a summary table showing the number of hospital admissions among residents of the county; the corresponding observed and expected admission rates; and the risk-adjusted rates along with their respective 95% confidence intervals are presented. In this section, county-level performance assessments will be made using risk-adjusted rates.

Unless otherwise stated, all rates are calculated in populations of NJ adults, defined as those 18 years of age and older. Some of the PQIs evaluate only subsets of this population (e.g., PQI 15 “asthma in younger adults”) and the population age range is included in the description and analysis.

The national rates for all 14 PQIs presented here as benchmarks for comparison purposes, are based on the 2022 HCUP - State Inpatient Data (SID) reported in the AHRQ PQI documentation - see Benchmark Data Tables via this link: Prevention Quality Indicators (PQI) Benchmark Data Tables, v2025

Comparison of a specific county-level PQI rate to the statewide average for the same indicator is one appropriate way to see how well a county does among its peers. Following the recommendation of AHRQ, we have compared county rates against statewide rates. However, one may equally compare the county rates against the national rates since the risk-adjustment was based on national parameters.

PQI 01 – Diabetes with short-term complications

Diabetes with short-term complications is an indicator of avoidable hospitalization or ambulatory care sensitive condition (ACSC). This indicator is not a measure of hospital quality, but rather a measure of outpatient care and other health care not related to hospitalizations. Short-term complications of diabetes are defined as acute complications that can be resolved with immediate care, such as dehydration, hypo or hyperglycemia, diabetic ketoacidosis (DKA), and hyperosmolar hyperglycemic state (HHS) which can lead to coma. These life-threatening emergencies arise when a patient develops heightened blood sugar (glucose) more than what their body can regulate (hyperglycemia) or abnormally low levels of blood glucose (hypoglycemia). Diabetic ketoacidosis occurs when there is insufficient insulin in the body to allow for proper use of glucose, leading to a buildup of compounds in the blood called ketones, which are acidic and toxic at high concentrations. Other short-term complications of diabetes can include infection and poor wound healing.

Hospital admission for “diabetes with short-term complications” is a PQI that would be of most interest to comprehensive health care delivery systems. The assumption is that proper outpatient treatment and adherence to care may reduce the incidence of these

events resulting in lower admission rates, which implies better quality of care. The rate is defined as admissions for “diabetes with short-term complications” per 100,000 adults in each county. The indicator includes all non-maternal/non-neonatal discharges of age 18 years and older with ICD-10-CM/PCS codes for diabetes with short-term complications (ketoacidosis, hyperosmolarity, coma); excluding transfers from another institution and those with maternal specific primary codes Major Diagnostic Category (MDC) 14 (pregnancy, childbirth, and puerperium) and MDC 15 (newborn and other neonates).

Table 1 shows the number of hospital admissions for “diabetes with short-term complications” by county along with observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- Statewide, there were 4,755hospital admissions for “diabetes with short-term complications” in 2024 for a risk-adjusted rate of 64.1 per 100,000 adult population. The national hospital admission rate for diabetes with short-term complications was 82.5 per 100,000 in 2022(the latest available).

  County-level risk-adjusted rates can be compared to the statewide risk-adjusted rate to see if there is statistical significance in the difference. For example, the risk-adjusted hospital admission rate for “diabetes with short-term complications” among the adult population of Atlantic County is 104.9 per 100,000 with a 95% confidence interval of 92.9 to 117.0. The statewide risk-adjusted rate of 64.1 per 100,000 is far below the lower limit of the confidence interval - showing that the hospital admission rate for this PQI in Atlantic County, which is 104.9, is statistically significantly higher than that of the statewide average. This can be used as a signal for policy makers to do further investigation into the health care provisions for diabetic patients in the county. In another example, the risk-adjusted rate of 24.2 per 100,000 in Somerset County is statistically significantly lower than the statewide average (i.e., the statewide rate of 64.1 is higher than the upper limit of the 95% confidence interval of Somerset’s rate, which is 34.8) – suggesting that Somerset County performed better on this indicator compared to the statewide average. See Tables 16, 17 and 18 for variations by patient’s demographic characteristics.

Table 1. Hospital Admissions for Diabetes Short-term Complications (per 100,000 county population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**4,755**	**63.8**	**82.1**	**64.1**	**62.1 - 66.2**
Atlantic	229	103.0	81.0	104.9 **	92.9 - 117.0
Bergen	249	32.1	81.5	32.5 *	26.0 - 38.9
Burlington	255	67.2	81.5	68.1	58.9 - 77.3
Camden	425	102.6	82.1	103.2 **	94.4 - 112.0
Cape May	61	78.0	77.6	83.0	62.2 - 103.8
Cumberland	245	207.7	83.2	206.1 **	189.8 - 222.5
Essex	609	90.1	83.1	89.5 **	82.7 - 96.3
Gloucester	148	60.0	82.3	60.2	48.9 - 71.6
Hudson	339	57.0	84.5	55.7 *	48.5 - 62.9
Hunterdon	42	39.4	80.3	40.4 *	23.0 - 57.9
Mercer	277	90.6	82.8	90.3 **	80.1 - 100.4
Middlesex	349	49.7	82.8	49.5 *	42.8 - 56.2
Monmouth	241	46.8	81.1	47.7 *	39.8 - 55.6
Morris	122	29.3	81.5	29.7 *	20.9 - 38.4
Ocean	254	50.8	79.7	52.6 *	44.5 - 60.7
Passaic	413	102.5	82.6	102.4 **	93.5 - 111.3
Salem	31	60.3	81.2	61.3	36.2 - 86.3
Somerset	68	24.0	81.9	24.2 *	13.6 - 34.8
Sussex	46	38.7	81.5	39.2 *	22.8 - 55.6
Union	268	58.9	82.8	58.7	50.4 - 67.0
Warren	84	92.5	81.1	94.2 **	75.3 - 113.0

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below state average (i.e. better than average).

** = Statistically significantly above state average (i.e. worse than average).

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population (the reference population being the total NJ population during the year).

PQI 03 – Diabetes with long-term complications

Area-level hospital admission rate for “diabetes with long-term complications” is a good indicator of an avoidable hospitalization or ambulatory care sensitive condition (ACSC). This indicator is not a measure of hospital quality, but rather a measure of outpatient care and other health care issues not related to hospitalizations. Long-term complications of diabetes include heart disease, stroke, and damage to the kidneys, eyes, nerves, and circulatory system. Hospital admission for “diabetes with long-term complications” is a PQI that would be of most interest to comprehensive health care delivery systems. Long-term complications of diabetes can arise from sustained chronic poor control of diabetes, a condition that can be managed with sufficient outpatient oversight. Intensive treatment programs have been shown to decrease the incidence of long-term complications in both type 1 and type 2 diabetes. The indicator relates to quality because research shows that proper outpatient treatment and adherence to care reduces the incidence of diabetic long-term complications, and that lower hospitalization rates suggest better quality of care. The rate is defined as hospital admissions for diabetic long-term complications per 100,000 in the adult population for each county. The indicator includes all discharges age 18 years and older with ICD-10-CM/PCS codes for “long-term complications of diabetes.”

Table 2 shows the number of hospital admissions in New Jersey hospitals in 2024 for “diabetes with long-term complications” by county along with observed, expected and risk- adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- Statewide, there were 10,526 hospital admissions in 2024 for “diabetes with long- term complications.” The statewide average risk-adjusted hospital admission rate for diabetes with long-term complications is 137.9 per 100,000. Table 13 shows New Jersey rates in comparison with the National rates.

Table 2. Hospital Admissions for Diabetes Long-term Complications (per 100,000 county population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**10,526**	**141.2**	**115.8**	**137.9**	**135.5 - 140.2**
Atlantic	406	182.6	122.4	168.7 **	155.2 - 182.1
Bergen	665	85.6	120.3	80.5 *	73.3 - 87.8
Burlington	600	158.2	119.5	149.8 **	139.4 - 160.2
Camden	795	191.9	112.8	192.4 **	182.2 - 202.7
Cape May	119	152.1	142.9	120.4	99.4 - 141.3
Cumberland	463	392.4	111.4	398.5 **	379.2 - 417.8
Essex	1,218	180.3	107.4	189.8 **	181.6 - 198.1
Gloucester	293	118.8	115.2	116.7 *	103.6 - 129.9
Hudson	878	147.6	95.0	175.8 **	166.4 - 185.1
Hunterdon	129	120.9	131.4	104.0 *	85.3 - 122.7
Mercer	391	127.9	112.4	128.6	116.7 - 140.6
Middlesex	781	111.2	112.5	111.8 *	103.9 - 119.7
Monmouth	641	124.5	125.0	112.7 *	104.0 - 121.5
Morris	326	78.3	121.9	72.6 *	62.8 - 82.4
Ocean	708	141.6	127.4	125.7 *	116.9 - 134.5
Passaic	996	247.2	112.0	249.6 **	239.2 - 260.1
Salem	38	73.9	122.0	68.5 *	40.5 - 96.5
Somerset	219	77.2	119.9	72.8 *	60.8 - 84.8
Sussex	121	101.8	125.5	91.8 *	73.6 - 109.9
Union	627	137.8	112.3	138.8	129.0 - 148.6
Warren	112	123.3	126.2	110.6 *	89.9 - 131.3

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below state average (i.e. better than average).

** = Statistically significantly above state average (i.e. worse than average).

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population (the reference population being the total NJ population during the year).

PQI 05 – Chronic obstructive pulmonary disease (COPD) or asthma in older adults

"Chronic obstructive pulmonary disease (COPD) or asthma in older adults" includes three primary diseases that cause respiratory dysfunction - asthma, emphysema, and chronic bronchitis - each with distinct etiologies, treatments, and outcomes. This indicator examines these conditions in older adults, defined as adults aged 40 and over. Asthma in younger adults is discussed separately in PQI 15. COPD or asthma in older adults" can often be controlled in an outpatient setting. Admissions for this indicator include exacerbations of COPD, respiratory failure, and, in rare cases, lung volume reduction surgery or lung transplantation.

With appropriate outpatient treatment and compliance, hospitalizations for exacerbations of COPD and decline in lung function could be minimized. Counties may wish to use chart reviews to understand more clearly whether admissions are a result of poor health care quality or other factors, such as issues of access or social determinants of health that healthcare facilities cannot control for. Counties may also wish to identify hospitals that contribute the most to the overall area rate for this indicator. Proper outpatient treatment may reduce admissions for COPD, and lower rates suggest better quality of care. According to evidence established by AHRQ, hospital admission rate for COPD is a good indicator of avoidable hospitalization or ambulatory care sensitive condition (ACSC). The rate is defined as admissions for COPD per 100,000 adults 40+ in each county. In other words, all non-maternal discharges age 40 and older with ICD-10-CM/PCS codes for COPD excluding maternal specific codes under MDC 14 (pregnancy, childbirth, and puerperium) and MDC 15 (newborn and other neonates), are included in the rate calculation.

Table 3 shows the number of hospital admissions for "chronic obstructive pulmonary disease (COPD) or asthma in older adults" by county along with their observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- In New Jersey, there were 11,192 hospital admissions for "COPD or asthma in older adults" in 2024. The statewide risk-adjusted hospital admissions rate for this PQI was 233.1 per 100,000 with a 95% confidence interval of 229.1 to 237.0

County-level rates range from a low of 109.5 (Somerset County) to a high of 1,026.7 (Cumberland County) per 100,000 population ages 18 and older.

Table 3. Hospital Admissions for Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults (per 100,000 county population, age 40+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**11,192**	**234.5**	**201.4**	**233.1**	**229.1 - 237.0**
Atlantic	398	270.1	215.1	251.3	229.3 - 273.3
Bergen	690	132.6	201.1	131.9 *	119.8 - 144.0
Burlington	700	280.8	205.4	273.6 **	256.3 - 290.9
Camden	1,113	428.4	199.9	428.8 **	411.6 - 445.9
Cape May	211	361.5	243.4	297.2 **	264.4 - 330.1
Cumberland	735	1,009.7	196.8	1,026.7 **	994.0 - 1,059.4
Essex	1,113	269.4	187.6	287.5 **	273.4 - 301.6
Gloucester	281	179.0	201.1	178.1 *	156.1 - 200.1
Hudson	917	295.1	184.1	320.7 **	304.3 - 337.1
Hunterdon	146	192.2	211.9	181.5 *	150.6 - 212.3
Mercer	485	252.0	195.2	258.4 **	238.2 - 278.7
Middlesex	758	172.7	195.1	177.2 *	163.8 - 190.6
Monmouth	698	198.6	209.0	190.1	175.7 - 204.6
Morris	317	113.1	203.2	111.4 *	94.9 - 127.8
Ocean	975	285.9	229.9	248.8 **	234.9 - 262.8
Passaic	524	210.1	199.4	210.9 *	193.3 - 228.5
Salem	76	221.4	207.4	213.6	167.2 - 260.0
Somerset	205	108.2	197.7	109.5 *	89.2 - 129.7
Sussex	199	246.9	205.1	240.9	210.4 - 271.4
Union	523	181.9	190.5	191.1 *	174.4 - 207.8
Warren	128	206.0	208.8	197.5 *	163.1 - 231.9

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below state average (i.e. better than average).

** = Statistically significantly above state average (i.e. worse than average).

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population (the reference population being the total NJ population during the year).

PQI 07 – Hypertension

Hypertension, or high blood pressure, is a chronic cardiovascular condition in which systemic blood vessel pressure is elevated. Hypertension hospitalizations are a good indicator of those that are considered avoidable. It is a chronic condition that is often controllable in an outpatient setting with appropriate use of drug therapy. Hospital admission for hypertension is a PQI that would be of most interest to comprehensive health care delivery systems. Counties may wish to identify hospitals that contribute the most to the overall county rate for this indicator. As a PQI, hypertension is not a measure of hospital quality, but rather one measure of outpatient health care. Providers may reduce admission rates without necessarily improving quality by shifting care to an outpatient setting. Proper outpatient treatment may reduce admissions for hypertension, and lower admission rates represent better quality of community health care. The rate is defined as admissions for hypertension per 100,000 adults in each county. The indicator includes all non-maternal discharges age 18 or older with ICD- 10-CM/PCS codes for hypertension but excludes transfers from another institution and patients with primary discharge codes of MDC 14 (pregnancy, childbirth, and puerperium), MDC 15 (newborn and other neonates) and cases with cardiac procedure codes in any field.

Table 4 shows the number of hospital admissions for hypertension by county along with their observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- Statewide, there were 5,560 potentially preventable hospital admissions for hypertension treatment in 2024, for a risk-adjusted rate of 72.1per 100,000 adults. Rates of hospital admission for hypertension ranged from as low as 37.1 per 100,000 (Hunterdon County) to as high as 196.1 in (Cumberland County).

- Four counties (Atlantic, Camden, Cumberland, and Essex) have statistically significantly higher admission rates for hypertension compared to the statewide average.

Table 4. Hospital Admissions for Hypertension (per 100,000 population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**5,560**	**74.6**	**59.9**	**72.1**	**70.4 - 73.8**
Atlantic	215	96.7	62.4	89.7 **	80.1 - 99.4
Bergen	359	46.2	62.4	42.8 *	37.7 - 48.0
Burlington	287	75.7	61.9	70.7	63.3 - 78.1
Camden	459	110.8	58.7	109.2 **	102.0 - 116.5
Cape May	38	48.6	73.4	38.3 *	23.4 - 53.3
Cumberland	229	194.1	57.3	196.1 **	182.3 - 209.9
Essex	707	104.6	56.1	107.9 **	102.1 - 113.8
Gloucester	140	56.8	58.3	56.4 *	46.9 - 65.8
Hudson	413	69.4	50.5	79.6	73.0 - 86.1
Hunterdon	45	42.2	65.9	37.1 *	23.5 - 50.6
Mercer	233	76.2	57.9	76.1	67.6 - 84.7
Middlesex	497	70.7	57.6	71.1	65.5 - 76.7
Monmouth	350	68.0	63.3	62.2 *	55.9 - 68.5
Morris	234	56.2	63.1	51.5 *	44.5 - 58.5
Ocean	417	83.4	67.9	71.0	64.9 - 77.2
Passaic	315	78.2	58.2	77.8	70.4 - 85.2
Salem	20	38.9	62.5	36.0 *	16.0 - 56.0
Somerset	170	59.9	61.6	56.3 *	47.7 - 64.8
Sussex	60	50.5	61.3	47.7 *	34.4 - 60.9
Union	319	70.1	57.9	70.1	63.1 - 77.1
Warren	53	58.4	63.4	53.2 *	38.3 - 68.2

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below state average (i.e. better than average).

** = Statistically significantly above state average (i.e. worse than average).

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population (the reference population being the total NJ population during the year).

PQI 08 – Heart failure

Heart failure, sometimes referred to as congestive heart failure (CHF), leads to about 1 million annual hospital admissions and is the most common reason for admission for patients 65 and older. It is estimated that about half of the people who developed heart failure die within 5 years of diagnosis. It is also estimated that heart disease costs more than $30 billion a year at a national level, which includes the cost of health care services, medicines to treat heart failure, and missed days of work. The most common causes of HF are coronary artery disease (CAD), high blood pressure, and diabetes.

Usually, CHF can be controlled in an outpatient setting. However, the disease is a chronic progressive disorder for which some hospitalizations are appropriate. CHF relates to quality because research shows that proper outpatient treatment reduces admissions for CHF, which in turn lowers admission rates, suggesting a better quality of care. CHF is a PQI that would be of most interest to comprehensive health care delivery systems. As the causes for CHF admissions may include poor quality of care, lack of patient compliance, or problems of access to care, counties may wish to review CHF patient records to identify precipitating causes and potential targets for intervention. As a prevention quality indicator, CHF is not a measure of hospital quality, but rather a measure of outpatient care and other community level health conditions. The rate is defined as admissions with a principal diagnosis of heart failure per 100,000 adults in each county. The measure excludes cardiac procedure admissions, obstetric admissions, and transfers from other institutions.

Table 5 shows the number of hospital admissions for heart failure by county-level along with their observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- Statewide, there were 31,338 hospital admissions for *heart failure* in 2024. The risk-adjusted hospital admissions rate for *heart failure* was 396.8 per 100,000, age 18 and above.

Admission rates for HF ranged from a low of 246.4 per 100,000 in Somerset to a high of 1,100.6 per 100,000 in Cumberland.

Table 5. Hospital Admissions for Heart Failure (per 100,000 population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**31,338**	**419.5**	**427.7**	**396.8**	**392.4 - 401.2**
Atlantic	1,149	515.6	464.0	449.6 **	425.1 - 474.0
Bergen	2,341	300.9	453.6	268.4 *	255.2 - 281.7
Burlington	1,744	459.0	448.8	413.8	394.7 - 432.9
Camden	2,421	583.0	411.7	572.9 **	553.8 - 591.9
Cape May	475	605.3	600.5	407.8	371.6 - 444.1
Cumberland	1,306	1100.9	404.6	1,100.6 **	1064.7 - 1136.6
Essex	3,216	475.2	376.7	510.3 **	494.7 - 525.9
Gloucester	735	297.6	407.2	295.7 *	270.9 - 320.6
Hudson	2,016	338.4	324.7	421.7 **	403.8 - 439.6
Hunterdon	396	370.2	496.3	301.8 *	267.7 - 336.0
Mercer	1,235	403.3	405.8	402.1	379.7 - 424.4
Middlesex	2,471	351.2	401.5	353.8 *	339.0 - 368.6
Monmouth	2,054	398.2	465.1	346.4 *	330.3 - 362.4
Morris	1,269	304.1	462.9	265.8 *	247.9 - 283.7
Ocean	2,989	595.4	538.6	447.2 **	432.1 - 462.3
Passaic	2,153	533.2	412.1	523.4 **	504.1 - 542.7
Salem	166	322.6	455.8	286.3 *	234.9 - 337.7
Somerset	760	267.5	439.2	246.4 *	224.1 - 268.7
Sussex	448	376.3	437.6	347.9 *	313.4 - 382.4
Union	1,590	349.0	395.8	356.7 *	338.1 - 375.2
Warren	404	443.8	467.1	384.4	346.2 - 422.5

Source: New Jersey 2024 UB Data.

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population (the reference population being the total NJ population during the year).

PQI 11 – Community-acquired pneumonia

Community-acquired pneumonia (CAP), formerly listed as PQI 11 bacterial pneumonia, is a relatively common acute condition, frequently treatable with antibiotics when caused by a bacterial infection. Other infectious agents that can cause CAP include viruses (seasonal respiratory viruses like influenza and SARS-CoV-2) as well as fungal infections. If left untreated, susceptible individuals at higher risk for poor outcomes due to respiratory infection, such as the elderly or immunocompromised, infectious pneumonia can lead to death. The name of the PQI was updated to reflect the fact that not all CAP infections are caused by bacteria. Proper outpatient treatment may reduce admissions for CAP in non-susceptible individuals, and lower admission rates represent better quality of care at the community level. CAP is a good indicator of avoidable hospitalization or ambulatory care sensitive condition (ACSC). High admission rates are often a reflection of large number of inappropriate admissions or low-quality treatment with antibiotics when not clinically indicated or effective against the etiology for the infection. As a PQI, admission for CAP is not a measure of hospital quality, but rather a measure of outpatient care and other community-level health care issues.

The elderly population is particularly susceptible to pneumonia, and in this population, a vaccine is suggested to prevent one of the leading causes of bacterial pneumonias frequently transmitted in community settings (i.e., pneumococcus pneumonia). Areas may wish to examine the outpatient care for pneumonia and pneumococcal vaccination rates to identify potential processes of care that may reduce admission rates. Necessity of hospital admission appears to be a problem for this indicator. High rates may reflect large number of inappropriate admissions, poor outpatient care, or other systemic failures outside the control of the health care system.

The rate is defined as admissions for CAP per 100,000 adults in each county. The indicator includes all non-maternal discharges, age 18 and older with the ICD-10-CM principal diagnosis code for CAP. It excludes transfer cases, MDC 14 (pregnancy, childbirth, and puerperium), MDC 15 (newborn and other neonates), and those with diagnosis code for sickle cell anemia (or similarly coded HB-S disease).

Table 6 shows the number of hospital admissions for bacterial pneumonia by county along with the observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

In New Jersey, there were 10,390 hospital admissions for bacterial pneumonia in 2024. With a risk-adjusted rate of 133.0 per 100,000.

Table 6. Hospital Admissions for Community-Acquired Pneumonia (per 100,000 population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**10,390**	**139.3**	**127.9**	**133.0**	**130.6 - 135.4**
Atlantic	379	170.4	139.6	149.0 **	135.4 - 162.5
Bergen	838	107.9	135.4	97.2 *	89.9 - 104.6
Burlington	649	171.1	134.1	155.7 **	145.2 - 166.3
Camden	689	166.3	123.2	164.8 **	154.2 - 175.3
Cape May	256	327.0	182.1	219.1 **	199.1 - 239.1
Cumberland	400	338.9	119.2	346.9 **	326.8 - 367.1
Essex	870	128.7	112.5	139.7	131.0 - 148.3
Gloucester	181	73.4	122.4	73.2 *	59.5 - 86.9
Hudson	667	112.1	97.4	140.4	130.5 - 150.4
Hunterdon	154	144.2	148.3	118.7	99.7 - 137.7
Mercer	361	118.0	121.2	118.9 *	106.5 - 131.3
Middlesex	780	111.0	120.0	112.9 *	104.7 - 121.1
Monmouth	892	173.2	139.0	152.1 **	143.2 - 161.0
Morris	477	114.5	137.8	101.4 *	91.4 - 111.3
Ocean	1,100	219.8	161.9	165.7 **	157.3 - 174.1
Passaic	645	160.0	123.0	158.8 **	148.1 - 169.5
Salem	83	161.4	136.9	143.9	115.4 - 172.3
Somerset	228	80.4	130.7	75.0 *	62.6 - 87.4
Sussex	170	143.1	130.5	133.7	114.6 - 152.9
Union	448	98.4	118.0	101.9 *	91.5 - 112.2
Warren	123	135.4	139.0	118.9	97.7 - 140.2

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

PQI 11 - Community-Acquired Pneumonia was formerly called Bacterial Pneumonia.

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population.

PQI 12 – Urinary tract infection

Urinary tract infection (UTI) is a common acute condition that can, when caused by bacteria, be treated with antibiotics in an outpatient setting. However, this condition, especially bacterial UTIs, can progress to more clinically significant infections, requiring emergent care to prevent pyelonephritis, a condition where the infection ascends to the kidneys and can cause severe damage to the organ. Certain populations are more at risk, particularly women, and vulnerable individuals with inadequate treatment. Proper outpatient treatment is believed to reduce hospital admissions for UTI, and lower admission rates represent better quality of care at a community level. Hospital admission for UTI is a PQI that would be of most interest to comprehensive health care delivery systems. As a PQI, admission for UTI is not a measure of hospital quality, but rather one measure of outpatient care and other health care issues.

The rate is defined as admissions for UTI per 100,000 adults in each county. The indicator includes all non-maternal discharges age 18 and older with ICD- 10-CM principal diagnosis code for urinary tract infection. It excludes transfer cases, MDC14 (pregnancy, childbirth, and puerperium), MDC 15 (newborn and other neonates), patients with diagnosis code of kidney/urinary tract disorder, and patients with diagnosis or procedure codes indicating an immunocompromised state.

Table 7 shows the number of hospital admissions for urinary tract infection by county along with the observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- In New Jersey, there were 11,164 hospital admissions for urinary tract infection in 2024. The risk-adjusted hospital admissions rate for urinary tract infection is 141.1 per 100,000.

- The national average admission rate for urinary tract infection in 2022 was 106.2 per 100,000 population, age 18+ (see Table 13).

County-level urinary tract infection rates can be compared to the statewide average as well as the national average to see where specific counties stand on this specific indicator.

Table 7. Hospital Admissions for Urinary Tract Infection (per 100,000 population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**11,164**	**149.7**	**112.7**	**141.1**	**138.8 - 143.4**
Atlantic	366	164.5	121.3	144.1	131.5 - 156.7
Bergen	900	115.8	120.0	102.6 *	95.8 - 109.4
Burlington	775	204.2	118.7	182.8 **	173.0 - 192.6
Camden	830	200.3	109.1	195.1 **	185.4 - 204.9
Cape May	126	161.0	157.9	108.4 *	89.7 - 127.0
Cumberland	447	378.5	104.1	386.4 **	367.6 - 405.1
Essex	902	133.5	99.9	141.9	133.9 - 149.9
Gloucester	274	111.1	105.5	111.8 *	99.0 - 124.7
Hudson	677	113.8	87.2	138.6	129.5 - 147.7
Hunterdon	173	162.0	127.7	134.8	117.0 - 152.5
Mercer	415	135.7	106.6	135.3	123.8 - 146.8
Middlesex	864	122.9	104.5	125.0 *	117.4 - 132.7
Monmouth	853	165.6	120.8	145.6	137.3 - 154.0
Morris	652	156.4	122.2	136.0	126.8 - 145.2
Ocean	1,154	230.5	146.2	167.5 **	159.8 - 175.1
Passaic	631	156.6	109.3	152.2 *	142.3 - 162.1
Salem	64	124.4	120.0	110.2 *	83.8 - 136.6
Somerset	254	89.5	115.3	82.5 *	71.0 - 93.9
Sussex	160	134.6	108.6	131.6	113.4 - 149.9
Union	493	108.3	103.7	111.0 *	101.4 - 120.6
Warren	154	169.5	120.0	150.0	130.1 - 169.9

Source: **New Jersey 2024 UB Data.**

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population.

PQI 14 – Uncontrolled diabetes

Uncontrolled diabetes indicates a failure to stabilize blood sugar levels in diabetic patients with either chronic, excessively high blood glucose (hyperglycemia) or frequent coagulation, where blood glucose becomes dangerously low (hypoglycemia). In some diabetics, glucose levels can be stabilized by proper administration of insulin and diligent home blood-glucose monitoring. Other diabetics who are insulin-resistant require other types of medication control and monitoring to avoid overall problems with glycemic control. However, it is unclear whether poor glycemic control arises from poor quality medical care, non-compliance of patients, lack of education, or problems of access to care – or more simply, the difficulty in controlling this complex metabolic disease. Areas with high rates may wish to examine these factors when interpreting this indicator. Proper outpatient treatment and adherence to care may reduce the incidence of uncontrolled diabetes, and lower admission rates represent better quality of care.

Hospital admission for uncontrolled diabetes is a PQI that would be of most interest to comprehensive health care delivery systems, such as some health maintenance organizations (HMOs), or public health agencies. Uncontrolled diabetes as a measure of potentially avoidable hospitalizations should be used in conjunction with short-term complications of diabetes (PQI 01).

The rate is defined as admissions for uncontrolled diabetes per 100,000 adults in each county. The indicator includes all non-maternal discharges, age 18 and older with ICD- 10-CM/PCS diagnosis codes for uncontrolled diabetes, without mention of a short- term or long-term complication. It excludes transfer cases, MDC 14 (pregnancy, childbirth, and puerperium), and MDC 15 (newborn and other neonates).

Table 8 shows the number of hospital admissions for uncontrolled diabetes by county along with the observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- In New Jersey, there were 3,334 hospital admissions for uncontrolled diabetes in 2024. The risk-adjusted rate is 43.4 per 100,000. By comparison, the national admission rate for uncontrolled diabetes in 2022 was 35.5 per 100,000.

Hospital admission rates for uncontrolled diabetes in Camden, Cumberland, Hudson, and Passaic counties were statistically significantly higher compared to the statewide average.

Table 8. Hospital Admissions for Uncontrolled Diabetes (per 100,000 population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**3,334**	**44.7**	**36.6**	**43.4**	**42.1 - 44.8**
Atlantic	115	51.7	38.9	47.2	39.7 - 54.6
Bergen	202	26.0	38.0	24.3 *	20.3 - 28.4
Burlington	182	48.0	37.8	45.1	39.2 - 50.9
Camden	237	57.2	35.7	56.9 **	51.2 - 62.6
Cape May	23	29.4	47.1	22.1 *	10.7 - 33.6
Cumberland	157	133.1	35.0	134.9 **	124.1 - 145.7
Essex	477	70.6	33.6	74.6 *	70.0 - 79.2
Gloucester	71	28.8	35.9	28.5 *	21.1 - 35.9
Hudson	293	49.3	30.2	57.9 **	52.8 - 63.1
Hunterdon	24	22.5	41.0	19.5 *	9.0 - 30.0
Mercer	118	38.6	35.2	38.9	32.2 - 45.6
Middlesex	289	41.1	35.1	41.6	37.1 - 46.0
Monmouth	214	41.6	39.1	37.8	32.9 - 42.7
Morris	129	31.0	38.4	28.6 *	23.1 - 34.1
Ocean	214	42.8	42.4	35.8 *	31.0 - 40.6
Passaic	211	52.4	35.4	52.5 **	46.7 - 58.3
Salem	14	27.2	38.5	25.1 *	9.5 - 40.8
Somerset	80	28.2	37.3	26.8 *	20.1 - 33.6
Sussex	36	30.3	38.2	28.1 *	17.8 - 38.4
Union	199	43.7	34.9	44.5	39.0 - 50.1
Warren	49	54.0	39.2	48.8	37.2 - 60.5

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population.

PQI 15 – Asthma in younger adults

Asthma exacerbation, or difficulty breathing, is one of the most common reasons for hospital admission and emergency room care. Most causes of asthma can be managed with proper ongoing therapy on an outpatient basis, though severe exacerbations may require emergent medical treatment. The assumption is that proper outpatient treatment may reduce the incidence or exacerbation of asthma requiring hospitalization, and that lower admission rates suggest better quality of care at community level. Environmental factors such as air pollution, occupational exposure to irritants, or other exposure to allergens have been shown to increase hospitalization rates or exacerbate asthma symptoms.

As a PQI, asthma in young adults is not a measure of hospital quality, but rather one measure of overall outpatient care in a community. The rate is defined as admissions for asthma per 100,000 population adults aged 18-39 in each county. The measure includes all non-maternal discharges age 18 to 39 with ICD-10-CM/PCS codes for asthma, but excludes transfer cases, MDC 14 (pregnancy, childbirth, and puerperium), MDC 15 (newborn and other neonates), and those with any diagnosis code of cystic fibrosis and anomalies of the respiratory system. Adults aged 40 and over with COPD or asthma are evaluated in PQI 05.

Table 9 shows the number of hospital admissions for asthma in younger adults by county along with their observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- In New Jersey, there were 933 hospital admissions for asthma in young adults (ages 18 to 40) in 2024 for a risk-adjusted rate of 34.6 per 100,000.

- Camden, Cumberland, Essex, and Passaic counties have young adult asthma admission rates that are statistically significantly higher than the statewide average.

Table 9. Hospital Admissions for Asthma in Younger Adults (per 100,000 population, age 18-39)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**933**	**34.8**	**19.1**	**34.6**	**33.0 - 36.3**
Atlantic	25	33.3	19.0	33.3	23.5 - 43.2
Bergen	54	21.1	19.2	20.9 *	15.6 - 26.2
Burlington	33	25.4	19.1	25.3 *	17.8 - 32.8
Camden	100	64.8	19.3	63.6 **	56.8 - 70.5
Cape May	10	50.3	18.9	50.5	31.3 - 69.7
Cumberland	39	86.0	18.6	88.1 **	75.3 - 101.0
Essex	155	59.0	19.2	58.5 **	53.3 - 63.8
Gloucester	31	34.6	19.0	34.7	25.6 - 43.7
Hudson	86	30.3	19.3	29.8	24.8 - 34.9
Hunterdon	2	6.5	19.2	6.4 *	0.0 - 21.8
Mercer	43	37.9	18.9	38.2	30.1 - 46.3
Middlesex	83	31.5	19.0	31.5	26.2 - 36.7
Monmouth	45	27.6	19.1	27.5	20.8 - 34.2
Morris	30	22.0	19.1	21.9 *	14.6 - 29.2
Ocean	33	20.7	19.0	20.8 *	14.0 - 27.6
Passaic	64	41.7	19.0	41.7 **	34.8 - 48.6
Salem	3	17.6	19.2	17.4	0.0 - 38.0
Somerset	26	27.6	19.2	27.4	18.6 - 36.2
Sussex	6	15.7	19.0	15.7 *	1.9 - 29.5
Union	59	35.2	19.1	35.0	28.4 - 41.5
Warren	6	20.9	19.1	20.8	4.9 - 36.7

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population.

PQI 16 – Lower-extremity amputation among patients with diabetes

Diabetes is a major risk factor for lower-extremity amputation, which can be caused by infection, peripheral neuropathy (nerve damage), peripheral artery disease (PAD) and microvascular disease. These factors together can lead to low sensation and poor oxygenation of peripheral extremities, leading to increases in accidents. Further poor wound healing seen in diabetic patients can progress to tissue damage and death, infection, and need for amputation. These events happen particularly in the feet and toes. Proper long-term glucose control, diabetes education, and foot care are some of the interventions that can reduce the incidence of infection, neuropathy, and microvascular diseases. As a PQI, lower-extremity amputations among patients with diabetes is not a measure of hospital quality but rather one measure of outpatient care and other health care problems in a community. Proper and continued treatment and glucose control may reduce the incidence of lower-extremity amputation; and lower hospitalization rates represent better quality of care.

The rate is defined as admissions for lower-extremity amputation in patients with diabetes per 100,000 adults in each county. The indicator includes all non- maternal discharges age 18 and older with ICD-10-CM procedure codes for lower- extremity amputation and diagnosis code for diabetes and excludes transfer cases, MDC 14 (pregnancy, childbirth, and puerperium), MDC 15 (newborn and other neonates), and those with trauma diagnosis codes.

Table 10 shows the number of hospital admissions for lower-extremity amputation by county along with their observed, expected and risk-adjusted rates. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- In New Jersey, there were 2,546 admissions for lower-extremity amputation in 2024. The risk-adjusted hospital admissions rate for lower-extremity amputation was 33.4 per 100,000. The national rate for 2022 (see Table 13) was 36.1per 100,000.

- Atlantic, Camden, Cumberland, Essex, and Passaic counties have rates that are statistically significantly higher than the statewide average.

Table 10. Hospital Admissions for Lower-Extremity Amputation among Patients with Diabetes (per 100,000 population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**2,546**	**34.2**	**37.0**	**33.4**	**32.0 - 34.7**
Atlantic	105	47.2	39.3	43.3 **	35.8 - 50.9
Bergen	172	22.1	38.5	20.8 *	16.7 - 24.9
Burlington	144	38.0	38.2	35.9	30.0 - 41.8
Camden	214	51.7	35.8	52.1 **	46.3 - 58.0
Cape May	10	12.8	46.4	10.0 *	0.0 - 21.7
Cumberland	160	135.6	35.5	137.9 **	127.0 - 148.8
Essex	262	38.8	34.0	41.3 **	36.6 - 45.9
Gloucester	85	34.5	36.9	33.8	26.3 - 41.2
Hudson	170	28.6	29.5	35.0	29.7 - 40.4
Hunterdon	26	24.4	42.7	20.6 *	10.1 - 31.1
Mercer	75	24.5	35.9	24.7 *	17.9 - 31.4
Middlesex	183	26.0	35.9	26.2 *	21.7 - 30.6
Monmouth	129	25.1	40.3	22.5 *	17.5 - 27.4
Morris	53	12.7	39.2	11.7 *	6.2 - 17.3
Ocean	154	30.8	40.7	27.3 *	22.4 - 32.3
Passaic	337	83.6	35.6	84.8 **	78.9 - 90.7
Salem	17	33.1	39.2	30.4	14.7 - 46.2
Somerset	49	17.3	38.5	16.2 *	9.4 - 23.0
Sussex	21	17.7	40.8	15.6 *	5.5 - 25.8
Union	161	35.4	35.8	35.7	30.2 - 41.2
Warren	19	20.9	40.8	18.5 *	6.9 - 30.1

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population.

PQIs 90, 91, 92 – Prevention quality composite indicators: Overall composite (PQI 90), Acute composite (PQI 91), and Chronic composite (PQI 92)

As mentioned earlier, the PQIs are currently implemented at the county level based on the location of the patient's residence, not on the location of the hospital. In other words, the PQIs are hospitalization rates for residents of the county, regardless of whether the hospital at which the patient has been treated, is located inside or outside the county, or state. The PQI composites are intended to improve the statistical precision of the individual PQI, allowing for greater discrimination in performance among areas, and improved ability to identify potentially determining factors in performance. Thus, the PQI composites are designed to help provide quick information on issues such as assessment of quality and disparity, baselines to track progress, and identify information gaps, and emphasize interdependence of quality and disparities.

- An overall composite captures the general concept of potentially avoidable hospitalization, connecting the individual PQI measures, which are all rates at the area level. The composite measures - acute and chronic – are created to investigate different factors influencing hospitalization rates for acute and chronic conditions. The PQIs used in each composite score are delineated as shown below:

- **Overall composite** (PQI 90) - Includes all 10 PQIs (i.e., PQI 01, PQI 03, PQI 05, PQI 07, PQI 08, PQI 11, PQI 12, PQI 14, PQI 15, and PQI 16).

- **Acute composite** (PQI 91) - Includes only PQI 11 and PQI 12.

- **Chronic composite** (PQI 92) - Includes the remaining 8 non-acute PQIs included under the overall composite.

Table 11 shows composite PQI measures for New Jersey in 2024 and shows the number of hospital admissions for overall, acute, and chronic conditions by county along with their risk-adjusted rates. Observed and expected rates are excluded for brevity. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

Table 11. Composite PQIs (per 100,000 population, age 18+)

County	Overall (PQI.90)		Acute (PQI.91)		Chronic (PQI.92)	
	Volume	Rate	Volume	Rate	Volume	Rate
Statewide	**90,221**	**1,137.8**	**21,554**	**273.0**	**68,668**	**877.4**
Atlantic	3,323	1,308.0 **	745	291.8	2,578	1,031.6 **
Bergen	6,370	739.0 *	1,738	199.3 *	4,632	545.4 *
Burlington	5,271	1,251.5 **	1,424	336.9 **	3,847	930.1 **
Camden	7,154	1,661.5 **	1,519	358.3 **	5,635	1,326.7 **
Cape May	1,322	1,185.9	382	325.7 **	940	870.3
Cumberland	4,091	3,297.4 **	847	724.1 **	3,244	2,673.4 **
Essex	9,371	1,443.2 **	1,772	280.6	7,599	1,177.9 **
Gloucester	2,188	868.1 *	455	184.2 *	1,733	690.7 *
Hudson	6,361	1,262.6 **	1,344	278.1	5,017	998.0 **
Hunterdon	1,120	869.8 *	327	251.9	793	625.8 *
Mercer	3,583	1,153.5	776	253.6 *	2,807	911.5 **
Middlesex	6,951	982.4 *	1,644	237.1 *	5,307	755.1 *
Monmouth	6,033	1,023.9 *	1,745	296.1 **	4,288	738.7 *
Morris	3,575	759.8 *	1,129	236.7 *	2,446	528.6 *
Ocean	7,913	1,223.9 **	2,254	331.3 **	5,660	905.8 **
Passaic	6,089	1,461.6 **	1,276	309.5 **	4,813	1,171.0 **
Salem	505	880.8 *	147	253.2	358	632.5 *
Somerset	2,030	662.4 *	482	157.2 *	1,548	509.8 *
Sussex	1,254	966.6 *	330	263.8	924	714.6 *
Union	4,594	1,013.3 *	941	212.3 *	3,653	809.8 *
Warren	1,123	1,076.0	277	267.3	846	821.5

Source: **New Jersey 2024 UBJ Data**.

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

OVERALL - includes all 10 PQIs (i.e., PQI.1, PQI.3, PQI.5, PQI.7, PQI.8, PQI.11, PQI.12, PQI.14, PQI.15, and PQI.16)

ACUTE - includes PQI.11 and PQI.12 only

CHRONIC - includes all 8 of the non-acute PQIs included under the composite - OVERALL.

PQI 93 – Diabetes composite

Diabetes composite (PQI 93) is composed of PQI 01 diabetes with short-term complications, PQI 03 diabetes with long-term complications, PQI 14 uncontrolled diabetes, and PQI 16 lower-extremity amputation among patients with diabetes. The diabetes composite rate represents hospital admissions per 100,000 population, ages 18 years and older; and it includes admissions for any one or more conditions as listed above.

Table 12 shows the number of hospital admissions for Diabetes Composite conditions by county along with their observed, expected and risk-adjusted rates including their corresponding 95% Confidence Intervals. The New Jersey rate for this PQI can be compared to the National rate in Table 13, while Tables 16, 17 and 18 show the distribution of these patients, as compared to the other PQIs, by other demographic factors of age, sex and race/ethnicity.

- In New Jersey, there were 19,663 admissions for diabetes composite (i.e., diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes, and diabetes with lower-extremity amputation) in 2024, with a risk-adjusted rate of 259.8 per 100,000 adults in each county (Table 12).

- Atlantic, Camden, Cumberland, Essex, and Passaic counties have rates that are statistically significantly higher than the statewide average.

Table 12. Prevention Quality Indicator - Diabetes Composite (per 100,000 population, age 18+)

County	Hospital admissions	Observed rate	Expected rate^	Risk-adjusted rate	95% Confidence Interval
Statewide	**19,663**	**263.7**	**251.0**	**259.8**	**256.3 - 263.3**
Atlantic	791	355.7	259.8	338.5 **	318.3 - 358.6
Bergen	1,188	152.9	256.9	147.2 *	136.4 - 158.0
Burlington	1,084	285.8	255.8	276.2	260.7 - 291.8
Camden	1,543	372.4	246.6	373.4 **	358.2 - 388.5
Cape May	206	263.3	287.9	226.1 *	193.9 - 258.3
Cumberland	935	791.7	245.7	796.8 **	768.4 - 825.2
Essex	2,412	356.9	239.4	368.7 **	356.6 - 380.7
Gloucester	546	221.4	249.8	219.2 *	199.7 - 238.6
Hudson	1,586	266.6	222.9	295.7	282.4 - 309.0
Hunterdon	204	191.1	271.6	174.0 *	145.6 - 202.4
Mercer	813	265.8	246.5	266.6	249.0 - 284.3
Middlesex	1,501	213.6	246.4	214.3 *	202.7 - 226.0
Monmouth	1,141	221.6	263.0	208.3 *	195.2 - 221.5
Morris	596	143.1	259.3	136.4 *	121.7 - 151.1
Ocean	1,246	249.1	267.5	230.3 *	217.0 - 243.5
Passaic	1,762	437.0	246.0	439.2 **	423.9 - 454.6
Salem	93	180.8	259.2	172.5 *	130.6 - 214.4
Somerset	387	136.4	256.2	131.6 *	113.7 - 149.5
Sussex	211	177.6	263.5	166.7 *	139.3 - 194.0
Union	1,163	255.5	246.0	256.8	242.4 - 271.3
Warren	255	280.8	264.6	262.3	231.1 - 293.6

Source: **New Jersey 2024 UB Data**.

* = Statistically significantly below the state average.

** = Statistically significantly above the state average.

Diabetes Composite - Includes PQI.1, PQI.3, PQI.14, and PQI.16)

^ Expected rate = (Observed rate/Risk-adjusted rate) * Standard deviation. It is the rate the county would have if it performed the same as the statewide average (reference population) given the county's actual case-mix (e.g., age, gender, DRG, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0), then the implication is that the county performed worse than the reference population for that indicator. If the observed rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0), then the implication is that the county performed better than the reference population.

Statewide PQI Measures Compared to National Estimates

National rates for PQIs are derived from the State Inpatient Data (SID), which is a national dataset dealing with inpatients only. SID is built from UB datasets coming from 49 participating states including the District of Columbia (Alabama and Idaho are not partners, yet). The uniform format of the SID helps facilitate cross-state comparisons because it 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 ICD-10 diagnosis and procedural codes, length of stay, expected payer, admission and discharge dates, and discharge disposition. In 2022, the SID database represented more than 97% of all annual discharges in the United States.

Table 13 shows National and New Jersey's statewide-level prevention quality indicator estimates for the ten individual PQIs and the four composite PQIs analyzed in this report. New Jersey's statewide estimated rates for 2018, 2020, 2022, and 2024 are presented along with the 2018, 2020, and 2022 National rates (the latest available) for readers to make comparisons. All rates in the table including the national rates are calculated using the PQIs module (SAS Version 2025).

Data in Table 13 clearly demonstrates that New Jersey's hospitalization rates for almost all the PQIs including the composite measures are considerably higher than the national averages. It ought to be noted, however, that NJ hospitalization rates for 2020 are lower than expected due to the pandemic.

Table 13. Comparing New Jersey's Statewide PQI Rates with National Rates (per 100,000 population)

Preventiona Quality Indicators (PQIs)	National			New Jersey			
	2018	2020	2022	2018	2020	2022	2024
Diabetes with Short Term Complications (PQI.01)	82.2	81.8	82.5	78.4	66.5	64.1	64.1
Diabetes with Long Term Complication (PQI.03)	108.9	104.2	113.1	138.4	105.5	122.7	137.9
COPD or Asthma in Older Adults (PQI.05)	381.1	221.6	200.1	486.2	218.7	312.9	233.1
Hypertension (PQI.07)	60.8	52.4	57.9	72.9	51.1	65.5	72.1
Heart Failure (PQI.08)	429.6	372.5	404.6	463.7	339.7	393.1	396.8
Community-Acquired Pneumonia (PQI.11)	183.6	132.8	122.0	182.8	112.1	118.8	133.0
Urinary Tract Infection (PQI.12)	134.8	101.3	106.2	162.3	106.7	133.4	141.1
Uncontrolled Diabetes (PQI.14)	42.1	36.3	35.5	55.7	38.6	42.9	43.4
Asthma in Younger Adults (PQI.15)	29.2	18.9	19.0	49.0	27.0	36.0	34.6
Lower Extremity Amputation (PQI.16)	32.3	33.9	36.1	34.0	28.8	29.0	33.4
Overall PQIs - Composite (PQI.90)	1,301.4	1,039.8	1,069.3	1,444.5	960.5	1,137.1	1,137.8
Acute PQIs - Composite (PQI.91)	318.4	234.1	228.3	344.1	218.2	252.2	273.0
Chronic PQIs - Composite (PQI.92)	983.1	805.8	824.1	1,123.2	751.1	894.8	877.4
Diabetes PQIs - Composite (PQI.93)	247.5	237.1	247.3	285.5	222.5	240.6	259.8

Note: Both the National and NJ Rates are calculated using the AHRQ Software Modules that get updated every year. Forexample, the 2022 National Rates and the 2024 New Jersey rates are calculated using the 2025 Version of the AHRQ Module (i.e., based on the ICD-10-CM Diagnosis & Procedure Codes).

Costs of Potentially Preventable Hospitalizations

This section presents potentially preventable hospitalizations and their associated costs. The terms “preventable hospitalizations” and “unnecessary hospitalizations” are often used interchangeably with “avoidable hospitalizations” to indicate the presence of hospital care for patients whose primary condition or diagnosis is one that, if detected and cared for effectively at an earlier point, may not lead to hospitalization. While not every hospitalization can be prevented through improvement in health care delivery, early detection, care, and education of persons with ambulatory care sensitive conditions is believed to reduce rates of potentially avoidable hospitalizations and save both lives and cost.

Table 14 shows the amount of money that could be saved by reducing potentially avoidable hospitalizations as estimated by the PQIs module. These statistics would assist health care planners in identifying communities for future interventions to improve preventive and primary care services, improve patient safety as well as in tracking the impacts of such interventions over time. Such information is particularly relevant in assessing the role hospitals and physicians may play in containing health care expenditures arising from potentially avoidable hospitalizations.

The UB database contains information on total charges for each patient’s in-hospital stay. This hospital charge information represents the amount that hospitals bill for services they provide but does not reflect how much they realistically cost; or the specific amounts that hospitals received in payment. Often, users are interested in seeing how hospital charges translate into actual costs, and the HCUP cost- to-charge ratio (CCR) Files enable this conversion.

The HCUP CCR files contain hospital-specific cost-to-charge ratios based on all-payer inpatient cost for nearly every hospital in the corresponding National Inpatient Sample (NIS) or State Inpatient Data (SID) sets. Cost information is obtained from the hospital accounting reports collected by the Centers for Medicare and Medicaid Services (CMS).

Hospitalization costs presented in this report are calculated using the HCUP CCR estimators. These estimates are obtained by multiplying total charges reported in the UB by cost-to-charge ratio (CCR) after data elements on the HCUP prepared CCR file for New Jersey were merged with our UB data using the appropriate procedure of merging different data sets. Thus, it is important to note that cost-to-charge ratio (CCR) files for NJ are obtained from HCUP.

In 2024, NJ hospitals reported about 90,221 hospitalizations for treatment of all the medical conditions outlined under the PQIs, which according to AHRQ’s specifications, are considered preventable. Using the cost-to-charge ratio estimators, potentially avoidable hospitalizations on the conditions presented in this report would have saved about 1.6 billion dollars ($1,670,372,344.83) in 2024 alone.

Table 14. Estimated Costs over Potentially Preventable Hospitalizations (in $)

Prevention Quality Indicators (PQIs)	# of Preventable Hospitalizations	Average length of in-hospital stay (days)	Average estimated cost per patient per day ($)	Average estimated cost per patient for all days ($)	Total estimated cost for all the Preventable Hospitalizations ($)
Diabetes with Short Term Complications	**4,755**	5.5	3,415	18,713	88,979,839.50
Diabetes with Long Term Complication	**10,526**	5.5	3,466	19,078	200,813,554.36
COPD or Asthma in Older Adults	**11,192**	5.4	3,353	18,117	202,763,897.12
Hypertension (PQI.07)	**5,560**	5.4	3,579	19,251	107,034,448.00
Heart Failure	**31,338**	5.2	3,474	18,225	571,149,152.10
Community-Acquired Pneumonia	**10,390**	5.6	3,398	18,890	196,264,398.60
Urinary Tract Infection	**11,164**	5.4	3,430	18,402	205,437,360.28
Uncontrolled Diabetes	**3,334**	5.3	3,367	17,987	59,969,458.16
Asthma in Younger Adults	**933**	5.6	3,473	19,379	18,080,858.91
Lower Extremity Amputation	**2,546**	6.3	3,464	21,754	55,386,600.56
Overall PQIs - Composite	**90,221**	5.4	3,446	18,514	1,670,372,344.83
Acute PQIs - Composite	**21,554**	5.5	3,414	18,636	401,689,181.14
Chronic PQIs - Composite	**68,668**	5.3	3,455	18,481	1,269,045,067.84
Diabetes PQIs - Composite	**19,663**	5.5	3,438	18,975	373,109,947.49

Source: NJ UB 2024.

Cost = TOTCHG * GAPICC.

TOTCHG stands for Total Charges reported in UB data, while GAPICC stands for Group average all-payer inpatient cost/charge ratio (CCR). HCUP constructed the CCR files using all-payer, inpatient cost and charge information that hospitals report to CMS. CCR provides an estimate of all-payer inpatient cost-to-charge ratio for hospitals in states that participate in HCUP.

Note: The HCUP Cost-to-Charge Ratio (CCR) Files enable users to convert total charges reported in UB databases to estimated actual costs. Each file contains hospital-specific cost-to-charge ratios based on all-payer inpatient cost for nearly every hospital in the corresponding National Inpatient Sample (NIS) or State Inpatient Data (SID). Cost information was obtained from the hospital accounting reports collected by the Centers for Medicare and Medicaid Services (CMS). Using the merged data elements from the cost-to-charge ratio files and the total charges reported in the UB data sets, we have converted the hospital total charge data to cost estimates by simply multiplying total charges with the appropriate cost-to-charge ratio according to AHRQ's recommendation.

Potentially Preventable Hospitalizations by Payer Type

Table 15 shows the percentage distribution of potentially preventable hospitalizations for each PQI by health insurance payer type as reported in the NJ 2024 UB data.

- Of the 31,338 potentially preventable hospitalizations for heart failure, 41.9% were paid for by Medicare. Similarly, 41.5% of the 11,192 hospitalizations for COPD, and 41.8% of the 5,560 for hypertensions were paid for by Medicare.

- About 42.6% of all the potentially preventable hospitalizations for community-acquired pneumonia (CAP) and 41.8% of urinary tract infections (UTI) were paid for by Medicare.

- Overall, more than 41% of the potentially preventable hospitalizations both for acute and chronic conditions were paid for by Medicare. These data also show that payment by private insurance for acute conditions was more than 29%.

- It should also be noted that 29.8% of hospital admissions for asthma in younger adults (ages 18-39) were paid by private insurance, implying significant gain in health insurance coverage among young adults.

- Both HCUP and AHRQ reports have shown that hospital stays paid for by Medicare were over three times more likely to be potentially preventable than were stays paid for by private insurance.

Table 15. Preventable Hospitalizations by Payer Type

PQIs	# of Preventable hospitaliza-tions	Paid by (%)				
		Medicare	Medicaid	Private	Self Pay	Other
Diabetes with Short Term Comp	**4,755**	41.7	20.9	27.1	1.6	8.6
Diabetes with Long Term Comp	**10,526**	40.9	20.3	28.0	2.0	8.8
COPD or Asthma in Older Adults	**11,192**	41.5	20.5	28.2	1.7	8.2
Hypertension	**5,560**	41.5	20.0	29.2	1.6	7.7
Heart Failure	**31,338**	41.9	18.3	26.9	2.2	10.8
Community-Acquired Pneumonia	**10,390**	42.6	18.5	29.0	1.7	8.1
Urinary Tract Infection	**11,164**	41.8	19.2	29.7	1.6	7.7
Uncontrolled Diabetes	**3,334**	40.6	19.6	30.1	1.7	8.0
Asthma in Younger Adults	**933**	38.2	21.9	29.8	1.8	8.4
Lower Extremity Amputation	**2,546**	40.4	21.4	27.1	1.7	9.4
Overall PQIs - Composite	**90,221**	41.7	19.2	27.9	1.9	9.3
Acute PQIs - Composite	**21,554**	42.2	18.9	29.4	1.7	7.9
Chronic PQIs - Composite	**68,668**	41.5	19.3	27.6	2.0	9.6
Diabetes PQIs - Composite	**19,663**	41.0	20.4	28.1	1.8	8.7

Source: NJ UB 2024

OVERALL Composite - includes all 10 PQIs.

ACUTE Composite - includes PQI.11 and PQI.12 only

CHRONIC Composite - includes all 8 of the non-acute PQIs included under the composite - OVERALL.

Diabetes Composite - Includes PQI.1, PQI.3, PQI.14, and PQI.16)

Selected PQIs by Age, Sex and Race/Ethnicity

The following tables show the breakdown of the 14 PQIs by age (Tables 16.1 and 16.2), sex (Table 17), and race/ethnicity (Table 18), of the total number of potentially preventable hospital admissions. The purpose of including these tables is to assess the extent to which hospitalizations vary by socio-demographic characteristics with the hope that such information will shine some light on prevention services planning.

Table 16.1 presents age distribution of the total hospital admissions for each PQI presented in Tables 1 through 12. As expected, hospitalizations for heart failure, community-acquired pneumonia, urinary tract infection and uncontrolled diabetes are significantly higher among people aged 65 and older.

Table 16.2 presents hospital admission rates by broad age groups.

- Among the 18-39 years old, hospitalization rates were higher for diabetes with short term complications at 61.6 per 100,000, followed by asthma in younger adults at 34.8 per 100,000.

- Among 40–64-year-olds, heart failure hospitalizations were more distinct at 167.6 per 100,000 followed by diabetes with long term complications at 155.7, and COPD at 133.7 per 100,000.

- Among the age group 65-74, the rate of hospitalizations for heart failure was the highest at 529.4 per 100,000, followed by COPD at 342.8, and diabetes with long term complications at 290.5 per 100,000.

- Among the 75 and older population, the highest hospitalization rate was due to heart failure at 2,831.4 per 100,000 followed by urinary tract infection at 925.1, community-acquired at 679.6, and COPD at 513.3 per 100,000 population.

- For all age groups, hospitalizations for chronic conditions were consistently higher compared with hospitalizations for acute conditions.

Table 17 shows potentially preventable hospitalizations of patients by sex for all ten PQIs and two of the composite measures. Among males, heart failure (HF) with 384.8 per 100,000 hospitalizations rate was the most noticeable, closely followed by COPD at 137.0 and urinary tract infection at 136.3 per 100,000. Heart failure (HF) at 454.0, COPD at 162.6, and urinary tract infection at 162.5 per 100,000 were also most noticeable for females. Both gender categories reflected higher hospitalization rates for chronic conditions than for acute conditions.

Table 18 shows variations in potentially preventable hospitalizations of patients by race/ethnicity for all the ten individual PQIs and two of the composite measures. Diabetes (both with short term and long-term complications) hospitalization rates were much higher for Blacks compared to the statewide averages. Except for Asian non-

Hispanics (NH), COPD hospitalizations were associated with the highest rates followed by heart failure for all race/ethnic groups. The highest rate for Asian NH was heart failure (198.2/100,000). Avoidable hospitalizations (i.e., rates) for all the measures displayed in this table are markedly higher for Blacks (African Americans) compared to other race/ethnic groups. Asian NH showed consistently, lower rates of hospitalizations, than all the other race/ethnic groups. Preventable hospitalization rates by socio-demographic characteristics clearly show wide variation. Some of these variations may result from lifestyle differences, lack of access to the health care system, or other social determinants of health.

Table 16.1: Age Distribution of Preventable Hospitalizations (%)

PQIs	# of Preventable hospitaliza-tions	Age Distribution			
		18-39	40-64	65-74	75+
Diabetes with Short Term Complications	**4,755**	34.8	44.2	12.1	8.9
Diabetes with Long Term Complication	**10,526**	5.3	45.3	27.0	22.4
COPD or Asthma in Older Adults	**11,192**	0.0	36.6	29.9	33.5
Hypertension	**5,560**	8.7	40.4	19.6	31.3
Heart Failure	**31,338**	1.3	16.4	16.5	65.9
Community-Acquired Pneumonia	**10,390**	6.7	23.5	22.1	47.7
Urinary Tract Infection	**11,164**	6.1	15.8	17.6	60.4
Uncontrolled Diabetes	**3,334**	8.1	35.3	23.6	33.0
Asthma in Younger Adults	**933**	100.0	-	-	-
Lower Extremity Amputation	**2,546**	2.4	47.1	30.6	19.9
Overall PQIs - Composite	**90,221**	5.8	25.8	19.9	48.4
Acute PQIs - Composite	**21,554**	6.4	19.5	19.8	54.3
Chronic PQIs - Composite	**68,668**	5.6	27.5	20.0	46.8
Diabetes PQIs - Composite	**19,663**	12.7	43.8	22.8	20.6

Source: NJ UB 2024

COPD or Asthma in Older Adults (PQI.05) - covers population 40 years of age and over. It does not apply to population ages 18-39. Likewise, PQI.15 applies only for younger adults ages 18-39.

OVERALL Composite - includes all 10 PQIs.

ACUTE Composite - includes PQI.11 and PQI.12 only

CHRONIC Composite - includes all 8 of the non-acute PQIs included under the composite - OVERALL.

Diabetes Composite - Includes PQI.1, PQI.3, PQI.14, and PQI.16)

Table 16.2: Hospitalized Patients for Selected PQIs by Age

(Rates are per 100,000 population in the given age group)

Selected PQIs	18 to 39		40 to 64		65 to 74		75+		Total (Ages 18 and over)	
	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate
Diabetes with Short Term Complications	1,653	61.6	2,103	68.6	574	58.8	425	58.3	**4,755**	**63.8**
Diabetes with Long Term Complication	558	20.8	4,773	155.7	2,837	290.5	2,358	323.3	**10,526**	**141.2**
COPD or Asthma in Older Adults (age 40+)	-	-	4,100	133.7	3,348	342.8	3,744	513.3	**11,192**	**150.1**
Hypertension	482	18.0	2,247	73.3	1,088	111.4	1,743	239.0	**5,560**	**74.6**
Heart Failure	407	15.2	5,139	167.6	5,171	529.4	20,652	2,831.4	**31,338**	**420.3**
Community-Acquired Pneumonia	696	25.9	2,445	79.8	2,292	234.7	4,957	679.6	**10,390**	**139.4**
Urinary Tract Infection	684	25.5	1,763	57.5	1,969	201.6	6,748	925.1	**11,164**	**149.7**
Uncontrolled Diabetes	270	10.1	1,177	38.4	786	80.5	1,101	150.9	**3,334**	**44.7**
Asthma in Younger Adults	933	34.8	-	-	-	-	-	-	**933**	**12.5**
Lower Extremity Amputation	62	2.3	1,200	39.1	778	79.7	506	69.4	**2,546**	**34.1**
Acute PQIs - Composite	1,380	51.4	4,208	137.3	4,261	436.3	11,705	1,604.7	**21,554**	**289.1**
Chronic PQIs - Composite	3,845	143.3	18,884	616.0	13,734	1,406.2	32,137	4,406.0	**68,668**	**921.0**
NJ 2024 Population Estimate (age 18+)	**2,683,992**		**3,065,774**		**976,703**		**729,399**		**7,455,868**	

Source: NJ UB 2024.

COPD or Asthma in Older Adults (PQI.05) - covers population 40 years of age and over. It does not apply to population ages 18-39.

Asthma in Younger Adults (PQI.15) - covers population 18 to 39 years of age only.

Note that rates in this table are not risk adjusted. They are simply observed/row rates obtained by dividing # of hospitalization in the age group by the total population in that same age group.

Note: According to the Department of Labor and Workforce Development, NJ's estimated total population in July 2024 was 9,500,851.

Table 17. Hospitalized Patients for Selected PQIs by Sex

(Rates are per 100,000 population ages 18 and older)

Selected PQIs	Male		Female		Total	
	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate
Diabetes with Short Term Comp	2,119	58.3	2,636	68.9	**4,755**	**63.8**
Diabetes with Long Term Comp	4,585	126.2	5,941	155.4	**10,526**	**141.2**
COPD or Asthma in Older Adults	4,976	137.0	6,216	162.6	**11,192**	**150.1**
Hypertension	2,448	67.4	3,112	81.4	**5,560**	**74.6**
Heart Failure	13,977	384.8	17,361	454.0	**31,338**	**420.3**
Community-Acquired Pneumonia	4,542	125.1	5,848	152.9	**10,390**	**139.4**
Urinary Tract Infection	4,952	136.3	6,212	162.5	**11,164**	**149.7**
Uncontrolled Diabetes	1,416	39.0	1,918	50.2	**3,334**	**44.7**
Asthma in Younger Adults	414	11.4	519	13.6	**933**	**12.5**
Lower Extremity Amputation	1,153	31.7	1,393	36.4	**2,546**	**34.1**
Acute PQIs - Composite	9,494	261.4	12,060	315.4	**21,554**	**289.1**
Chronic PQIs - Composite	30,420	837.6	38,248	1,000.2	**68,668**	**921.0**
NJ 2024 Population Estimate (age 18+)	**3,632,008**		**3,823,860**		**7,455,868**	

Source: NJ UB 2024.

Note: According to the Department of Labor and Workforce Development, NJ's estimated total population in July 2024 was 9,500,851.

COPD or Asthma in Older Adults (PQI.05) - covers population 40 years of age and over. It does not apply to population ages 18-39.

Asthma in Younger Adults (PQI.15) - covers population 18 to 39 years of age only.

Note that rates in this table are not risk adjusted. They are simply observed/row rates obtained by dividing # of hospitalization by the total population in that sex group.

Table 18. Hospitalized Patients for Selected PQIs by Race/Ethnicity

(Rates are per 100,000 population)

Selected PQIs	White NH		Black NH		Hispanic		Asian NH		Other		Total	
	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate	# of Hospital Admissions	Rate
Diabetes with Short Term Complications	2,308	56.3	887	89.2	975	71.4	178	20.9	407	288.3	**4,755**	**63.8**
Diabetes with Long Term Complication	5,109	124.6	1,805	181.6	2,229	163.1	484	56.7	899	636.8	**10,526**	**141.2**
COPD or Asthma in Older Adults	5,810	141.7	1,894	190.6	2,009	147.0	481	56.3	998	706.9	**11,192**	**150.1**
Hypertension	2,696	65.7	1,047	105.3	1,069	78.2	272	31.9	476	337.2	**5,560**	**74.6**
Heart Failure	16,609	405.0	4,387	441.4	5,641	412.8	1,692	198.2	3,040	2,153.1	**31,338**	**420.3**
Community-Acquired Pneumonia	5,711	139.3	1,544	155.4	1,801	131.8	454	53.2	880	623.3	**10,390**	**139.4**
Urinary Tract Infection	6,004	146.4	1,685	169.5	1,995	146.0	504	59.0	976	691.3	**11,164**	**149.7**
Uncontrolled Diabetes	1,571	38.3	649	65.3	661	48.4	134	15.7	319	226.0	**3,334**	**44.7**
Asthma in Younger Adults	427	10.4	177	17.8	193	14.1	37	4.3	99	70.1	**933**	**12.5**
Lower Extremity Amputation	1,186	28.9	469	47.2	546	40.0	110	12.9	235	166.5	**2,546**	**34.1**
Acute PQIs - Composite	11,715	285.7	3,229	324.9	3,796	277.8	958	112.2	1,856	1,314.6	**21,554**	**289.1**
Chronic PQIs - Composite	35,158	857.4	10,850	1,091.6	12,910	944.8	3,365	394.1	6,386	4,523.4	**68,668**	**921.0**
NJ 2024 Population Estimate (age 18+)	**4,100,727**		**993,884**		**1,366,366**		**853,710**		**141,180**		**7,455,868**	

Source: NJ UB 2024.

Note: According to the Department of Labor and Workforce Development, NJ's estimated total population in July 2024 was 9,500,851. Population estimates used in the table refer to ages 18 and over.

COPD or Asthma in Older Adults (PQI.05) - covers population 40 years of age and over. It does not apply to population ages 18-39.

Asthma in Younger Adults (PQI.15) - covers population 18 to 39 years of age only.

Note that rates in this table are not risk adjusted. They are simply observed/row rates obtained by dividing # of hospitalization in the age group by the total population in that same age group.

Summary of Findings

Potentially preventable hospitalizations, or patient in-hospital stays that might be avoided with the delivery of quality outpatient treatments and disease management, serve as useful indicators of possible unmet community health needs. By measuring the frequency of such hospitalizations among patient subpopulations, policymakers and providers can identify those communities most in need of improvements in outpatient care as well as the conditions for which care is most needed. Rates of potentially preventable hospitalizations are higher for vulnerable populations with limited access to care. Targeting issues related to access to primary care may serve to narrow disparities in health outcomes and improve the quality of care while reducing costs.

This report presents the number of preventable hospital admissions in each of the 21 counties. In addition to volume of hospitalizations, observed, expected and risk-adjusted rates (note that translations of these rates are discussed in the section that presents the Prevention Quality Indicators Module) for all the ten individual and four composite prevention quality indicators are provided to help assess the quality of health care in each county. Statewide and national estimates are also provided to facilitate county to state and county to national comparisons.

According to the 2024 New Jersey data, there are substantial variations in preventable hospital admissions by county. Some counties exhibit significantly higher admission rates than the statewide average while others have significantly lower rates. Not surprisingly, the variations appear to reflect the socio-economic disparities of the county populations, with more affluent counties having significantly lower rates than the state average and the less affluent counties having significantly higher admission rates. For example, hospital admissions rates for diabetes with short-term complications in Morris, Somerset, Bergen, and Hunterdon counties are 29.7, 24.2, 32.5, and 40.4 per 100,000, respectively. By comparison, the rates for Cumberland, Atlantic, Camden, Passaic and Essex counties are 206.1, 104.9, 103.2, 102.4, and 89.5 per 100, 000, respectively (see Table 1).

In another example, the lowest rate of hospital admission for hypertension is recorded in Hunterdon (37.1 per 100,000), Salem (36.0 per 100,000) and Cape May (38.3 per 100,000) followed by Bergen (42.8 per 100,000) and Sussex (47.4 per 100,000). By comparison, the highest rate of hospital admission for hypertension is reported in Cumberland (196.1 per 100,000), followed by Essex (107.9 per 100,000), Camden (109.2 per 100,000) and Atlantic (89.7 per 100,000) (See Table 4).

Other indicators also show similar variations by county, suggesting that PQIs are useful as baseline measures for the study of health disparities in geographic areas. A closer examination of PQI measures may help planners identify the socio-economic determinants of such huge variation in costly and potentially preventable hospitalizations. More importantly, this report can be used to promote the expansion of primary healthcare facilities to provide better healthcare access to those in need. This will lower preventable and costly hospital admissions.

References

Agency for Healthcare Research and Quality, Prevention Quality Indicators Overview: https://qualityindicators.ahrq.gov/measures/pqi_resources

AHRQ QI Technical Documentation, Version v2025, Agency for Healthcare Research and Quality, Rockville, MD. https://qualityindicators.ahrq.gov/measures/qi_resources. Accessed September 26th, 2025.

AHRQ PQI Technical Documentation, Version v2025, Agency for Healthcare Research and Quality, Rockville, MD. https://qualityindicators.ahrq.gov/measures/pqi_resources. Accessed September 26th, 2025.

AHRQ QI: PQI Technical Specifications Updates

AHRQ QI: National Healthcare Quality and Disparities Report Data

Prevention Quality Indicators (PQI) Benchmark Data Tables, v2023 (ahrq.gov)

HCUP Reports: http://www.hcup-us.ahrq.gov/reports.jsp

HCUP Statistical Briefs: http://www.hcup-us.ahrq.gov/reports/statbriefs/statbriefs.jsp.

Health Care Quality Assessment, *Prevention Quality Indicators*, New Jersey Department of Health https://www.nj.gov/health/healthcarequality/health-care-professionals/quality-indicators/

Health Care Quality Assessment, *Patient Safety Indicators – Technical Reports*: New Jersey Department of Health and Senior Services. https://www.nj.gov/health/healthcarequality/health-care-professionals/quality-indicators/psi.shtml

Health Care Quality Assessment, *Inpatient Quality Indicators*: Application of the AHRQ Module to New Jersey Data, https://www.nj.gov/health/healthcarequality/health-care-professionals/quality-indicators/iqi.shtml

Health Care Quality Assessment, Hospital Performance Report: A Report on Acute Care Hospitals for Consumers, New Jersey Department of Health and Senior Services. Hospital Performance Report

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